35 BIG TECH PREDICTIONS FOR 2018

THIRTY-FIVE PREDICTIONS ACROSS MOBILE, DIGITAL MEDIA, PAYMENTS, E-COMMERCE, INTERNET OF THINGS, FINTECH, AND TRANSPORTATION AND LOGISTICS FOR 2018

January 2018

The BI Intelligence Research Team

BI INTELLIGENCE

TABLE OF CONTENTS

INTRODUCTION

Nearly every industry has been disrupted by digital technologies over the past 10 years. And in 2018, we expect to see more transformative developments affect our businesses, careers, and lives. Some of these major predictions include:

- Cryptocurrencies will become more widely accepted
- Google and Apple will challenge Amazon in the smart speaker space
- The resurgence of the VR market
- The real self-driving car race will begin
- Drone regulations will relax
- Alibaba's international expansion
- Gen Z will become a major focal point for media companies and advertisers
- Payment security will become paramount
- Smart home devices will take off

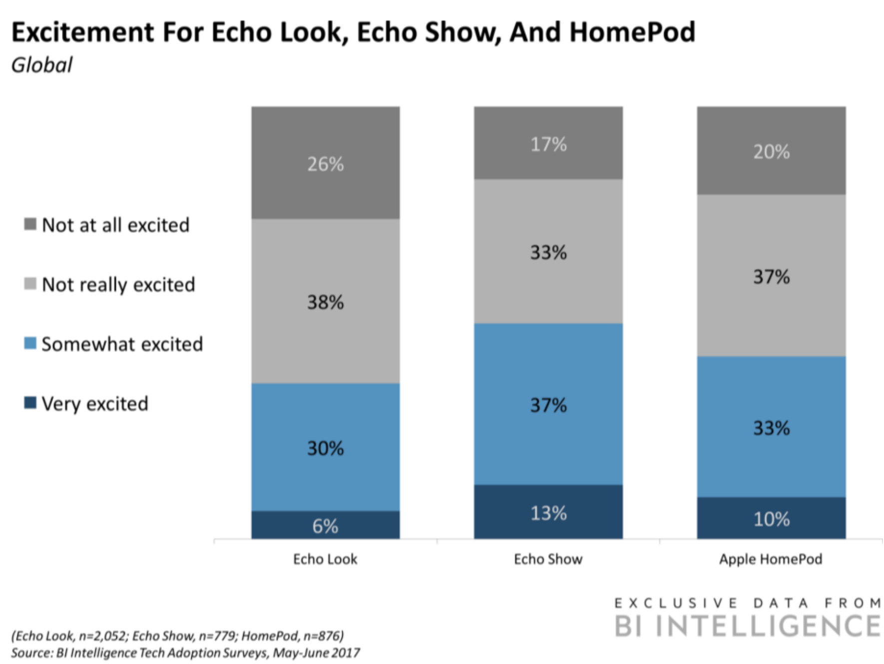
Here are 35 of our big predictions for 2018 across Apps and Platforms, Digital Media, Payments, Internet of Things, E-Commerce, Fintech, and Transportation & Logistics.

OUR TOP 5 IoT PREDICTIONS

The Internet of Things (IoT) reached the mainstream in 2017, with applications now evident across a wide range of sectors. Notably, we've witnessed the proliferation of the smart speaker, smart home companies refocusing their efforts on do-it-yourself (DIY) security systems, and several partnerships between big names in the enterprise IoT. Based on these developments, our proprietary research, and the trends we're watching headed into 2018, here are our top five predictions for the IoT in the year ahead.

1. Google and others will follow Amazon and introduce a smart speaker with a screen

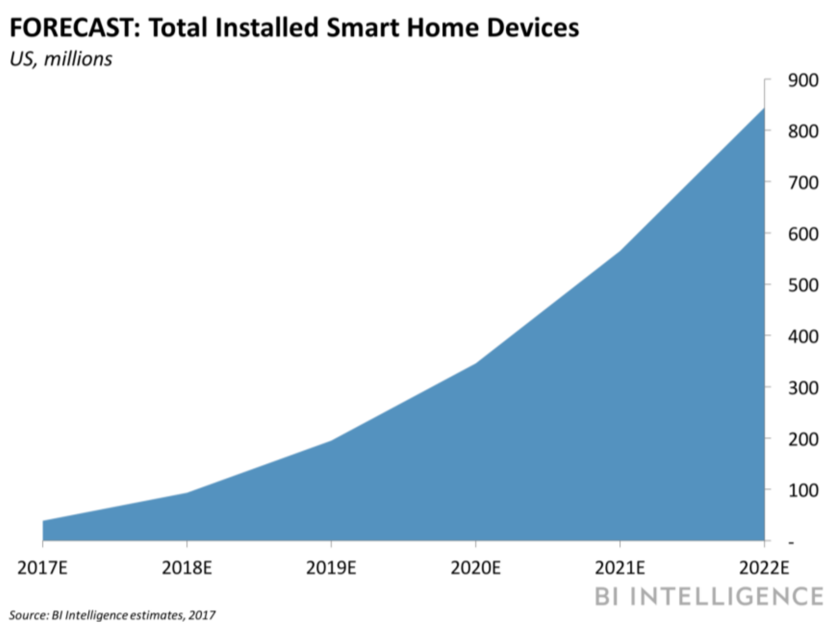
Last summer, Amazon launched the Echo Show, the first smart speaker to feature a screen. The screen proved to be a powerful differentiator, affording the Echo Show an advantage over Apple's HomePod among consumers in BI Intelligence's Tech Adoption surveys — 50% were somewhat or very excited for the screen-equipped device, compared with 43% for the HomePod. In 2018, we predict that Google, the e-commerce giant's chief competitor in the US smart speaker market, will launch its own screen-equipped smart speaker to compete with Amazon's device. And other companies like Samsung, Facebook, and Baidu will probably follow suit, though Apple will likely eschew this direction to push potential users toward the iPad and Apple TV. Over time, we expect screens to be present on most flagship smart speakers, making the visual element an expected utility.



*This data was delivered to BI Intelligence's **Ultimate Internet of Things Research Bundle** subscribers. You can get access to all of this information and other timely updates when you sign up today.*

2. More than 50 million new smart home devices will ship in the US alone in 2018

The market for smart home devices didn't take off as many projected it would in recent years. That's because these devices are often overpriced, difficult to set up, and part of a fragmented ecosystem that makes control a hassle. But the smart speaker has started to provide solutions to many of these problems, as it provides a ready-made hub and natural interface to let users control smart home devices. Amazon and Google make it simple for users to incorporate devices like smart light bulbs, connected door locks, and smart appliances into a home. They've also introduced ways for consumers to control multiple devices at once, either through "Routines," preset rooms that incorporate multiple devices, or the ability to link phrases within a single sentence to control numerous devices at once. In 2018, BI Intelligence expects US consumers to buy and install nearly 55 million smart home devices, which will largely be installed and managed using smart speakers.



This data was delivered to BI Intelligence's ***Ultimate Internet of Things Research Bundle*** *subscribers. You can get access to all of this information and other timely updates when you sign up today.*

3. Smart speaker markets will stratify based on local languages

As noted, the rise of the smart speaker is one of the biggest trends we saw impact the IoT in the last year — BI Intelligence estimates that Amazon has sold over 10 million Echo devices, while Google, Microsoft, Sonos, and others have sold millions more. Amazon and Google, in particular, are looking to leverage their success in the US to grab a share of large, digitally-savvy markets like China and Western Europe. But these companies are already running into competitors in these markets that have tailored the natural language processing (NLP) of their voice assistants to the local language. Notably, Chinese e-commerce titan Alibaba already has a device called Tmall Genie, a smart speaker powered by a Mandarin voice assistant, available in its home market, and chat app LINE released the Clova Wave, a similar device for the Japanese market this past October. As smart speakers become more common in markets like India, Southeast Asia, and other developing countries, domestic players will increasingly tailor them for local languages, resulting in a leg up on the likes of Amazon, Google, and Apple. That, in turn, will push these larger players to fine tune their voice assistants' NLP to support new languages.

This data was delivered to BI Intelligence's ***Ultimate Internet of Things Research Bundle*** *subscribers. You can get access to all of this information and other timely updates when you sign up today.*

4. Low-power wide-area network (LPWAN) operators will raise $1 billion

LPWANs are specialized networks designed to connect IoT devices that consume very little power and transmit data infrequently, like once or twice a day. Big telcos including AT&T and Verizon are racing to launch LPWANs before the handful of startups already in the space gobble up a commanding share of the market. These startups are armed with a ton of capital and rapidly expanding into new markets, representing a major threat to large telcos, but they will need more money to remain competitive. Sigfox, a French LPWAN carrier, has raised $277 million, including a $100 million Series D round back in 2015 and a whopping $150 million raise completed last year. However, unlike many other LPWAN operators, Sigfox needs to build out its own network infrastructure, which is particularly costly and led CEO Ludovic Le Moan to express interest in an initial public offering (IPO) in the not-too-distant future. Meanwhile, Senet, a similar LPWAN operator that uses the open LoRaWAN standard based off Semtech chipsets, has raised $28 million, but its last funding round occurred in 2015, meaning it could be due for some fresh funding. These two companies, as well as others in the space, will raise a combined $1 billion in 2018, as they look to connect the 22.5 billion IoT devices BI Intelligence expects will be installed by 2022.

This data was delivered to BI Intelligence's ***Ultimate Internet of Things Research Bundle*** *subscribers. You can get access to all of this information and other timely updates when you sign up today.*

5. Western governments will hold hearings to explore IoT regulations for consumer devices

Growth in consumer IoT products and the expansion of connectivity in devices of all sorts — ranging from appliances to thermostats to children's toys — has put an onus on companies with very little experience in cybersecurity to design and offer connected devices. An unfortunate byproduct of this trend has been the exposure of numerous consumer IoT devices as unsecured and potentially vulnerable to hacking. Throughout 2017, a number of lawmakers on both sides of the Atlantic started to raise concerns about the security risks posed by IoT devices, but those worries generally didn't move beyond statements to the media. In 2018, we predict that regulators and lawmakers — most likely in a large EU state like Germany or France — will move beyond broad statements and launch actual hearings and investigations into the security of consumer IoT devices, potentially prefacing wide regulation. While this may dampen adoption in the near term, higher cybersecurity standards could eventually help grow the IoT by assuaging consumer fears about privacy and the security of their data.

This data was delivered to BI Intelligence's ***Ultimate Internet of Things Research Bundle*** *subscribers. You can get access to all of this information and other timely updates when you sign up today.*

OUR TOP 5 DIGITAL MEDIA PREDICTIONS

In 2017, consumers spent more time — and advertisers spent more money — on digital media than ever before. Meanwhile, traditional formats remained stagnant or showed signs of deterioration. And Google and Facebook continued their reign as clear winners in the space, controlling the majority of global ad revenue. In the year ahead, digital media companies will aim to diversify revenue streams — with subscriptions, e-commerce, and brand licensing — to reduce reliance on strained ad revenues. Video will continue to be a major focus for brands, publishers, and social media platforms, and consumers will benefit from higher investments in high-quality content. Advertisers will start placing more emphasis on reaching Generation Z, as older members of this cohort begin to enter the workforce and gain immense spending power.

Here are our top predictions for the digital media industry in 2018. These predictions are based on our ongoing tracking, analysis, and forecasting of the digital media market, and conversations with industry executives.

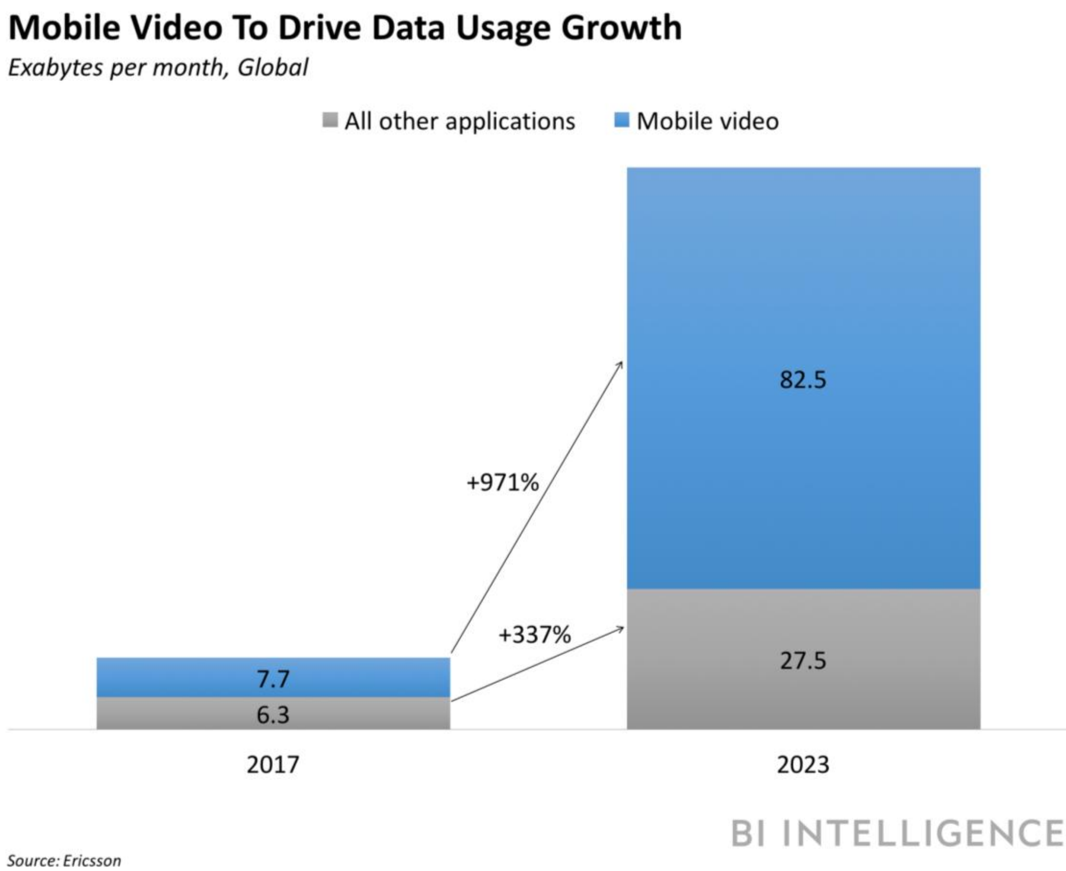
1. Mobile video will hit a tipping point: Users will become more receptive to "leaning back," high-quality content will proliferate, and new revenue models will be tested

- **Mobile video will become premium.** Investments in creating premium video programming for mobile devices will ramp up. High-end short-form series, which are similar to traditional TV programs albeit much shorter in length, will become more common. And efforts on behalf of digital platforms to siphon ad dollars away from TV will accelerate.

- **Social video will become more like TV.** Snapchat will continue developing its Snap Shows format and, tapping into its partnerships with television incumbents like Time Warner and NBC, will experiment with higher-end, scripted content. Facebook will continue to refine its Watch content to target an older, more global demographic than Snapchat Shows caters to. Google will keep the course of developing professional original video for both its free YouTube and premium YouTube Red tiers.

- **Traditional TV will become more mobile.** Projects like Vivendi's Studio+, Jeffrey Katzenberg's New TV, and Blackpills, which is partnered with Vice, picked up on this emerging trend early. AT&T CEO Randall Stephenson, who has been staunchly advocating for an AT&T-Time Warner merger, entertained the idea of creating shorter cuts of Game of Thrones. Netflix has said it's testing shorter cuts of its content to optimize for mobile screens.

- **New mobile-video business models will emerge, particularly around subscriptions.** Film and TV production studios, together with telecoms, will lead these efforts. The former will produce the quality content, and the latter will bundle this content into their mobile packages at a fixed cost to consumers.



This data was delivered to BI Intelligence's ***Ultimate Digital Media Research Bundle*** *subscribers. You can get access to all of this information and other timely updates when you sign up today.*

2. Gen Z will take over as the demographic to pay attention to

Gen Zers were born ~1996-2011, so its oldest members are turning 22 years old and beginning to enter the workforce. Gen Z will represent 40% of US consumers by 2020, and understanding their behaviors and preferences will be a priority for brands next year. Unlike millennials, Gen Zers are the first group of consumers to have grown up entirely in the post-digital era, and they boast unique traits that brands should note. Gen Z communicates with images, whereas millennials prefer text; Gen Z is realistic, whereas millennials are optimistic; and this generation is more budget-minded than its millennial predecessors. Gen Zers are addicted to their smartphones, but their attention spans are short, so effective brand messaging will be a challenge for marketers.

This data was delivered to BI Intelligence's ***Ultimate Digital Media Research Bundle*** *subscribers. You can get access to all of this information and other timely updates when you sign up today.*

3. Digital publishers will look to diversify revenue beyond advertising

As Google and Facebook continue to dominate the advertising market and account for a large majority of ad revenue growth, digital publishers will look to new revenue streams. Digital media companies will turn to a combination of subscriptions, brand licensing, merchandising, e-commerce partnerships, and new forms of native ads to build on their revenue models in 2018. Digital publishers will increasingly focus on content categories and niches that appeal to specific interests to drive traffic and better communicate partnership opportunities to brands.

*This data was delivered to BI Intelligence's **Ultimate Digital Media Research Bundle** subscribers. You can get access to all of this information and other timely updates when you sign up today.*

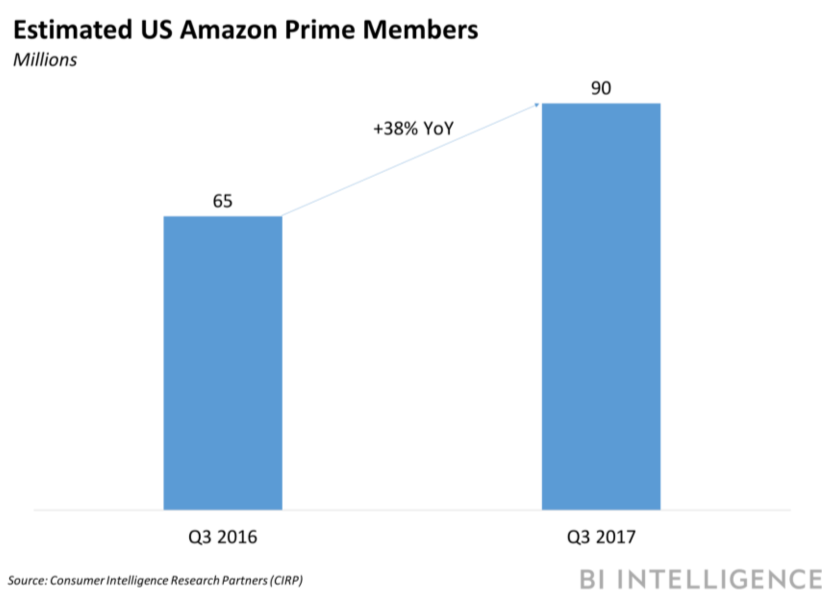
4. Artificial intelligence (AI) will play a bigger role in advertising

In 2018, more brands and marketers will turn to AI to improve the targeting and efficiency of their advertising strategies. The top use cases for AI and machine learning in marketing will be optimizing ad auction bidding, delivering highly personalized brand messages and content, and measuring campaign analytics to give instant insights on performance. By the end of 2018, 20% of all business content will be automated by machines through AI, according to Gartner. This will also lead to accelerated M&A of AI companies by publishers, brands, and advertising companies.

*This data was delivered to BI Intelligence's **Ultimate Digital Media Research Bundle** subscribers. You can get access to all of this information and other timely updates when you sign up today.*

5. Amazon will roll out major upgrades to its ad tools as it inches closer to becoming the third dominant advertising force after the duopoly

Amazon will roll out an updated ad API that will enable more ad buyer optimization and self-serve capabilities. These tools will become increasingly important as the world's biggest ad conglomerates — WPP, Omnicom, and Publicis — plan to collectively spend more than $800 million to advertise on Amazon over the next several years, per The Wall Street Journal. The increased budgets of these ad giants will influence more ad agencies and brands to consider advertising with Amazon, whose brick-and-mortar presence with its Whole Foods business and dominance as an e-commerce platform differente it from Google and Facebook. It's still a long way off before Amazon's ad business reaches the size of the duopoly — Amazon generated ad revenue in the low single-digit billions for 2017. This is miniscule compared with Google's and Facebook's ad businesses, which generated $61 billion and $27 billion in the first three quarters of 2017, respectively.



*This data was delivered to BI Intelligence's **Ultimate Digital Media Research Bundle** subscribers. You can get access to all of this information and other timely updates when you sign up today.*

OUR TOP 5 APPS AND PLATFORMS PREDICTIONS

The apps and platforms space is primed for a transformational 2018. The growth of artificial intelligence (AI)-powered voice assistants in 2017 will alter consumer behaviors in the year ahead. App store ecosystems, in search of more robust and reliable revenue streams, will shift to favor higher-quality content. Global digital usage will change as the "next billion" from emerging markets come online for the first time via mobile devices. And smartphones will continue to become less of a central hub in developed markets, as new hardware like connected speakers, and virtual reality (VR) and augmented reality (AR) headsets, continue to chip away at their dominance over digital. Below are our top predictions for the apps and platforms market as these trends, and more, unfurl throughout 2018. These predictions are based on our ongoing tracking, analysis, and forecasting of the apps and platforms market, and conversations with industry executives.

1. Amazon will lose its dominance in the voice assistant space

Amazon took a commanding lead in the US voice assistant market in 2017, and its line of Alexa-enabled devices account for about 70% of the smart speakers sold in 2017, according to Strategy Analytics. However, its early lead will be challenged as competition picks up steam. Major competitors will diminish, if not eliminate, Amazon's speaker lead in 2018:

- Google Home, Google's voice-controlled smart speaker that runs its AI-powered Google Assistant, accounted for 24% of the smart speakers sold in the US in 2017, but it's well suited to grow that share in part thanks to the 80% of Android phones that run Google Assistant.

- Apple's HomePod smart speaker device running Siri hasn't come to market yet, but will undoubtedly steal market share from Amazon when it does. The Apple effect — a noticeable uptick in device and tech adoption for both Apple products and those of competing brands whenever Apple launches a new version of an existing technology — will likely catalyze overall adoption of smart speakers while propelling its own smart speaker to the forefront. There are already 70 million Americans, 33% of the adult US population, interested in buying Apple's HomePod, according to survey results from Morning Consult.

One of the major reasons Amazon is so susceptible to competitors is that voice assistants have to be ubiquitous to be truly useful, and Amazon is missing the major smartphone footprint that will benefit Apple and Google. Although Amazon does make Alexa available on smartphones through mobile apps, most consumers prefer to use the AI that's already baked in to their smartphones. Once HomePod comes to market and Google Home sales ramp up, Amazon's share of US smart speaker shipments will dip below 50% for 2018.

*This data was delivered to BI Intelligence's **Ultimate Mobile Research Bundle** subscribers. You can get access to all of this information and other timely updates when you sign up today.*

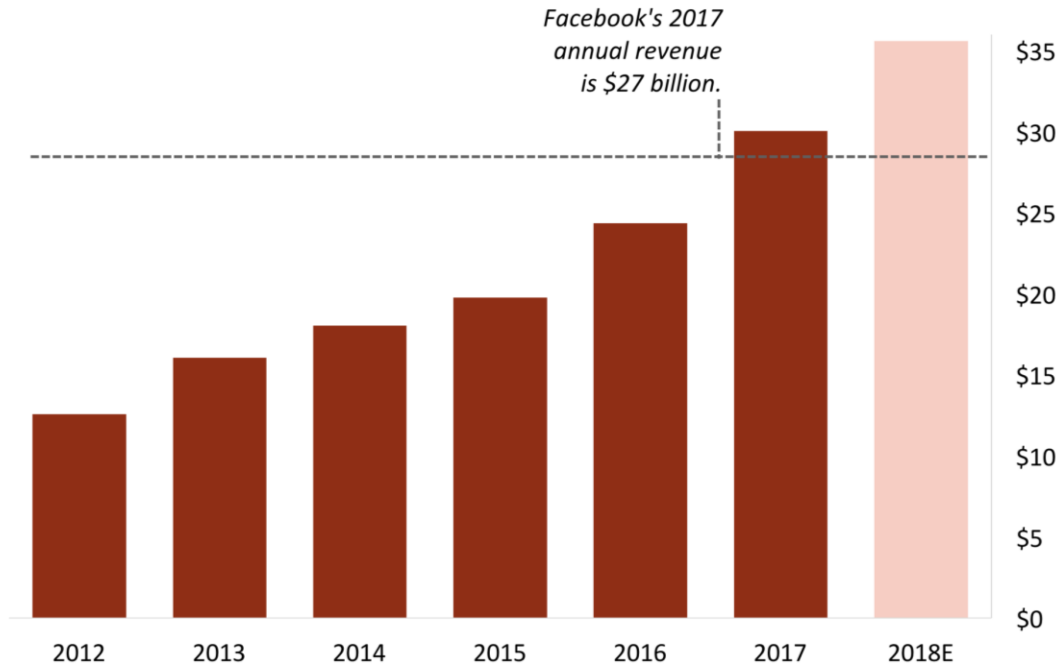
2. Apple will refine its App Store offerings in order to drive revenue from quality apps

Apple is focusing on high-quality and subscription apps to continue growing revenue from the iOS App Store, which is the largest revenue driver of Apple's juggernaut Services business. While Apple's Services segment has grown substantially to become Apple's second-largest revenue driver by business segment in recent quarters, the factors that led to the App Store's success are changing as mobile habits of consumers in developed markets evolve. Time spent in-app, while accounting for 90% of mobile time, is limited and likely won't increase much further. This means that only the most popular apps — the top 5 on any user's smartphone — will capture significant time.

While the success of the App Store once hinged on quantity over quality, that dynamic has reversed as the mobile app industry has matured. For this reason, Apple will refocus its efforts on quality apps and pare down on excess to drive continued growth for the App Store. For example, starting in January, Apple will cut back on low-quality or low-utility apps by removing and barring apps made with design templates — instead, it'll focus on ensuring that App Store apps are unique and of a high quality. The more attractive Apple can be to quality apps and services by eliminating clutter, the more revenue it will grow in its Services category. We believe that Apple's efforts in this regard, which it initiated at the end of 2017, will guarantee the App Store's continued dominance of global app revenue in the face of consolidating time spent in apps and increased competition from messaging apps like Facebook Messenger and China's WeChat.

Apple Services Fiscal-Year Revenue

In billions



Source: Apple, Fortune 500, BI Intelligence estimates, 2017

*This data was delivered to BI Intelligence's **Ultimate Mobile Research Bundle** subscribers. You can get access to all of this information and other timely updates when you sign up today.*

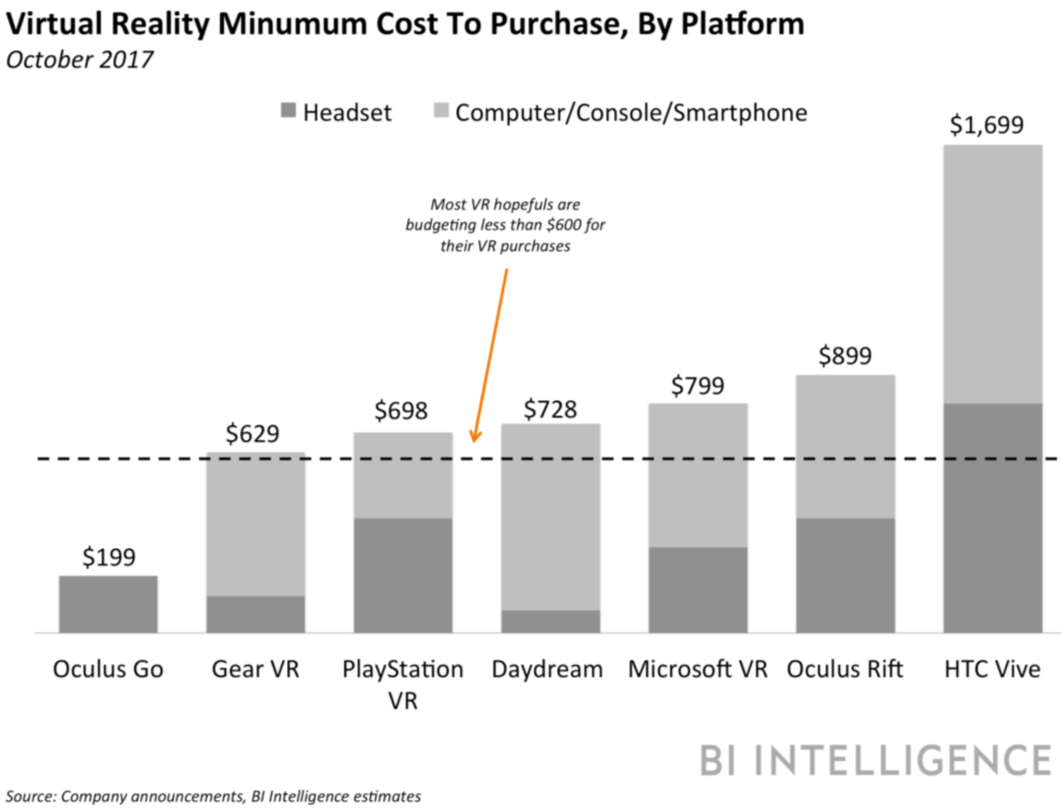
3. The introduction of stand-alone VR headsets in 2018 will re-invigorate the consumer VR market, and catalyze an uptick in device adoption

Though the VR market initially generated a lot of hype, demand and interest in VR headsets waned as consumers became disenchanted with devices that were either cost prohibitive and offered a good experience, or affordable and offered a laggy or otherwise poor experience. Facebook, Google, and HTC are all vying to release stand-alone VR headsets that fill that gap with affordable but quality devices in 2018. These devices address two primary pain points for consumers that are inhibiting adoption of VR technology:

- **Stand-alone devices aren't tethered to a computer**, like the HTC Vive, which can inhibit movement and takes up space. Nor are they powered by a smartphone, such as the Samsung Galaxy VR, which typically don't provide a premium VR experience.

- **They're significantly more affordable than other form factors.** The balance between quality VR and affordable devices has been a difficult one for the industry to achieve, with smartphone-geared headsets tending to sacrifice quality in favor of low prices, and industry-leading headsets prioritizing a world-class VR experience over affordability. Stand-alone headsets aim to solve this issue. For instance, Facebook's Oculus Go will retail at $199.

By addressing these two concerns, we expect to see a steep ramp-up in device adoption, particularly toward the end of the year. In turn, this will further incentivize developers and content makers to join the VR market, bringing more utility to the devices and creating a virtuous cycle of adoption and development.



This data was delivered to BI Intelligence's ***Ultimate Mobile Research Bundle*** *subscribers. You can get access to all of this information and other timely updates when you sign up today.*

4. Businesses will start to abandon mobile apps in favor of focusing on messaging and social apps

Messaging apps like Facebook Messenger, WhatsApp, Kik, WeChat, and LINE, and social media apps like Facebook and Instagram, are becoming more appealing solutions for businesses than actual mobile apps. Messaging and social apps have enormous user bases — just the top 4 chat apps globally have a combined 4 billion monthly active users — low barriers to entry for businesses looking to build a presence on them, and a growing set of tools meant to make communicating with customers a breeze.

The catalysts for this shift are twofold:

- **Apps are expensive to build and maintain, and it's challenging for businesses to stand out in saturated mobile app stores.** This issue will only worsen when Apple starts enforcing a policy banning apps made with templates, a development tactic that many small businesses use to cut the high cost of mobile app creation.
- **Chat and social apps are popular among consumers and present an opportunity for businesses to engage consumers where they're already spending their time.** Since social chat apps are the first apps consumers turn to — nearly half of all smartphone device sessions start out with a social chat app once the device has been unlocked — they offer businesses the ability to reach consumers where they already want to spend their time.

Chat and social apps have spent the past year rolling out new and compelling tools for businesses in an effort to catalyze this shift, and they're now seeing the fruits of their labor. Having a presence on chat apps is more important than ever for businesses, according to a recent survey by Facebook. Among the consumers who message businesses via chat apps, 63% say they engage more with businesses than they did two years ago. And this boost in interactions lead to greater conversions — 53% of consumers find they are more inclined to shop with a business they can contact via a chat app.

*This data was delivered to BI Intelligence's **Ultimate Mobile Research Bundle** subscribers. You can get access to all of this information and other timely updates when you sign up today.*

5. Facebook will challenge Apple and Google for developer efforts

In a July 2017 note where BI Intelligence identified ideas that go against the grain, we made the claim that the iOS-Android duopoly will falter. In 2018, the platform best poised to challenge the OS duopoly isn't an OS at all, but rather Facebook, as the social network continues efforts to house experiences and other applications within its Facebook app family. While Facebook began as a social network, it's made several moves over the past several years to establish itself as a platform. This effort is paying off:

- Facebook's family of apps — Facebook, Messenger, Instagram, and WhatsApp — have ranked in the top 5 most used apps globally since Sensor Tower started reporting those stats in Q1 2016.
- Not only do Facebook's apps get the most downloads, but they also account for the most mobile time spent. One-fifth of a user's total mobile time — which is around 5 hours in 2017 — is spent in the Facebook app, according to Flurry.

As Facebook creates more developer- and business-friendly tools for its family of apps, it will draw in more mobile content. In the past year alone, Facebook launched an AR developer platform for Facebook, expanded the chatbot developer functionalities in the Messenger Platform, and improved gaming across Messenger and the Facebook News Feed. As more developers create content for Facebook, consumers will spend even more time within Facebook's app family, effectively diminishing the power of Apple and Google over their own OSs.

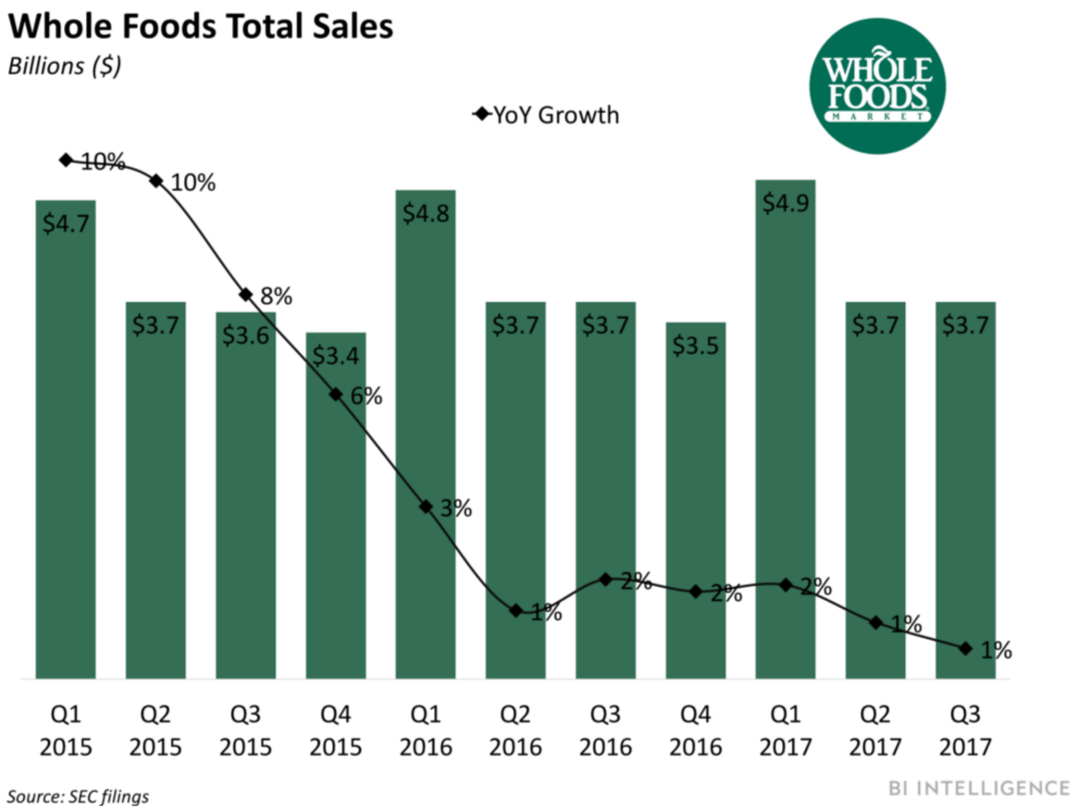
*This data was delivered to BI Intelligence's **Ultimate Mobile Research Bundle** subscribers. You can get access to all of this information and other timely updates when you sign up today.*

OUR TOP 5 E-COMMERCE PREDICTIONS

In 2017, e-commerce and retail saw several innovations take the spotlight, such as artificial intelligence (AI), augmented reality (AR), and omnichannel shopping. However, other areas remain lackluster, leaving retailers room for improvement in 2018. For instance, mobile purchases are expected to increase 23% year-over-year (YoY) in 2017, yet many retailers still provide disappointing mobile experiences. Based on our ongoing analysis, understanding of industry trends, and conversations with industry executives, here are our top five predictions for e-commerce in 2018.

1. The Amazon-Whole Foods marriage will likely hurt Whole Foods' reputation, causing Amazon to move to rebrand the grocer

Amazon’s acquisition of Whole Foods got off to a promising start, but the grocer has since raised prices by 1.6% on average, and, although its produce prices have dropped, some consumers feelthere's been a corresponding drop in quality. Though Whole Foods reportedly hasn't changed any relevant operations or standards for quality, consumers' perceptions are souring. Whole Foods built its reputation around the idea that high quality justifies high prices, but its image may be undercut by the fact that, under Amazon, the grocer's given its national office more control over purchasing decisions, moving away from the local sourcing that built Whole Foods’ brand. As consumers notice the lack of price drops they hoped for under Amazon, as well as the produce issues and lack of local products, the e-commerce titan will likely look to shed the grocer’s suddenly negative image in 2018 by starting from scratch with a rebrand, and appealing to a more price-discerning crowd. Amazon will likely use the opportunity to try to dominate the grocery industry with its expertise in pricing and logistics without Whole Foods’ consumer expectations, bringing its grocery efforts closer to its overall strategy.



*This data was delivered to BI Intelligence's **Ultimate E-Commerce Research Bundle** subscribers. You can get access to all of this information and other timely updates when you sign up today.*

2. Alibaba will bring Singles' Day to the US in 2018

Alibaba brought in a tremendous $25.3 billion in revenue on Singles' Day 2017, which more than doubled US e-commerce sales on hallowed sales holidays Black Friday and Cyber Monday 2017 combined. Singles' Day began in the mid-1990s as a day to celebrate being single, but in 2009 Alibaba co-opted the holiday to sell to singles. Since then, it's expanded Singles' Day to other areas, and saw great success in Southeast Asia this year. The US is also on the company's radar — as the trade corridor between China and the US could be worth as much as $46 billion by 2021 — and it's been building relationships with US merchants to strengthen its presence. Next year, we'll likely see Alibaba promote Singles' Day in the US and offer significant deals to draw US consumers to its marketplaces. And, due to the country's rising single population, and Amazon's successful launch of its own e-commerce holiday, Prime Day, Singles' Day could resonate. However, it will likely draw far fewer sales than Prime Day in 2018, as Alibaba's US presence doesn't hold a candle to Amazon's.

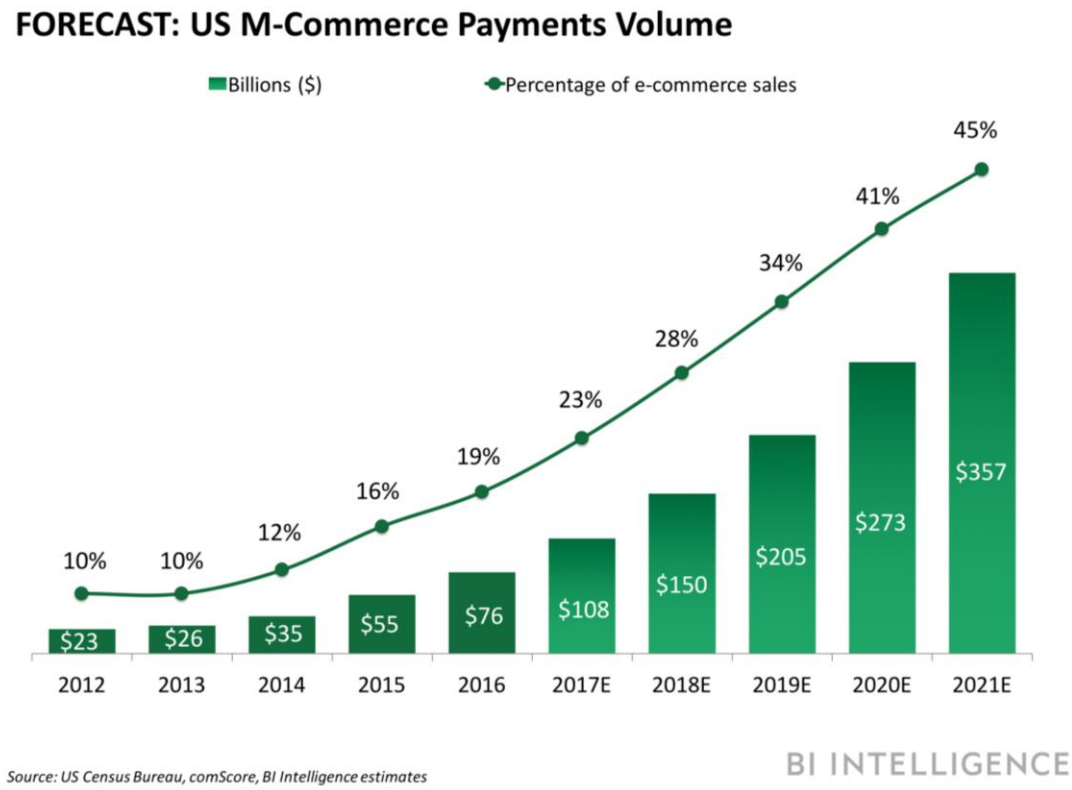
*This data was delivered to BI Intelligence's **Ultimate E-Commerce Research Bundle** subscribers. You can get access to all of this information and other timely updates when you sign up today.*

3. A cavalcade of retailers and brands will revamp their mobile apps and browsers

Retailers and brands will aim to improve their mobile performances in 2018, as mobile commerce (m-commerce) is projected to make up nearly half of US e-commerce purchases by 2021. They will improve their mobile apps and browsers in two key areas:

- **Retailers will look to speed up their mobile channels, as consumers will abandon slow apps and browsers.** One of m-commerce's main obstacles has been low conversion rates. Slow speeds are a majorcause of mobile abandonment, so retailers will move to speed up their mobile load times to eliminate this problem. Pier 1 recently updated its mobile browser to an adaptive response design, allowing the browser to adjust its size to fit a particular screen. This lowered its load times significantly and increased its conversion rate by 93%. Retailers and brands will launch similarly redesigned apps and browsers to make them faster and to reap the same rewards.

- **The introduction of iOS 11 and Apple's ARKit has brought AR to the mainstream, and retailers will introduce it to their mobile experiences.** Sixty-nine percent of consumers expect retailers to have AR tools by the end of March 2018, making it table stakes to compete in m-commerce in 2018. Retailers and brands will therefore make significant investments in their mobile apps to make sure they meet customers' expectations. These tools are likely to include product demos, virtual product try-on, additional product information, and more as retailers and brands look to offer useful and unique mobile experiences.



This data was delivered to BI Intelligence's [***Ultimate E-Commerce Research Bundle***] *subscribers. You can get access to all of this information and other timely updates when you sign up today.*

4. Amazon will enter pharmacy

Over the past year, the e-commerce giant has been hiring talent to aid in this potential move, and has purportedly started working with middle-market pharmacy benefits managers. Mail-order prescription, where Amazon would compete, is a lucrative segment — United Healthcare's mail-order service, Optum Rx, raked in $60 billion in the fiscal year 2016, for instance. However, selling prescriptions requires Amazon to get licenses in each state, making it unlikely that Amazon will have a nationwide prescription service within the next year; the e-commerce titan already told regulators in Tennessee and Indiana that it wouldn't use state licenses to sell prescription drugs, only medical devices. Amazon will likely get licenses in a few states instead — like in Maine, where a license is required to sell prescription drugs, but not medical equipment — and use them to test and strengthen its service, much like it's done with its alcohol delivery service.

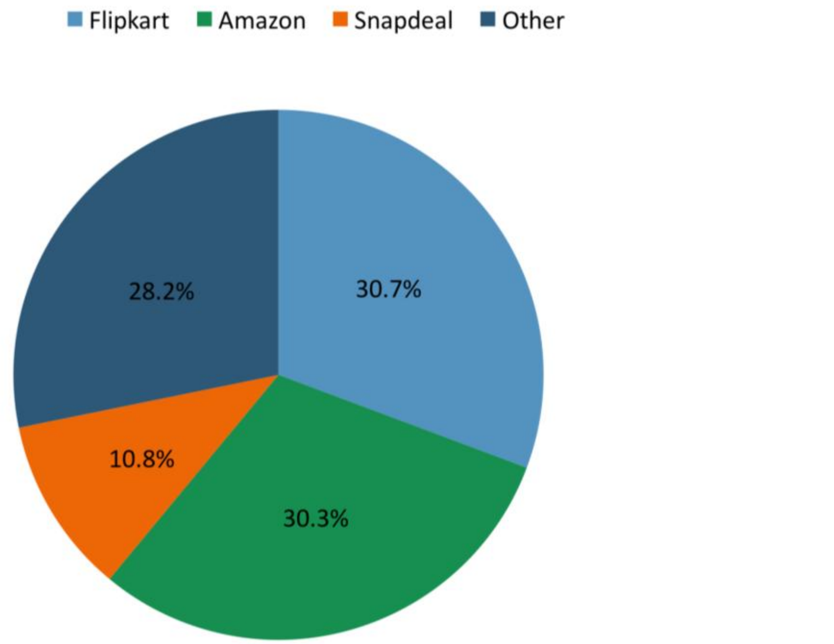
*This data was delivered to BI Intelligence's **Ultimate E-Commerce Research Bundle** subscribers. You can get access to all of this information and other timely updates when you sign up today.*

5. India will become a battleground for e-commerce by mid-2018

India's burgeoning e-commerce market has drawn the attention of foreign companies. Amazon launched its own e-commerce site in India in 2013, and is already fighting for the top spot against local player Flipkart. India may be the first neutral territory where Amazon and Alibaba go head-to-head, as Alibaba's Paytm Mall seems to be gaining traction quickly in the country. Paytm Mall, which launched earlier this year, reportedly garnered 15-20% of all e-commerce sales during the festive season (September 20 to mid-October). Moreover, Paytm is ranked as the fourth-most popular brand to shop from, according to RedSeer's Q3 Indian e-tailing Leadership Index. Currently, its value proposition — product quality, availability, and pricing — is nearly on par with Amazon's and FlipKart's, but its brand recognition is still low in the country. However, with Alibaba's backing, it could easily invest heavily in marketing initiatives. And, given how quickly Paytm has already progressed, it will likely gain enough market share to threaten Amazon and Flipkart by mid-2018.

Share Of Monthly Mobile E-Commerce Engagement

India, March 2017



Source: 7Park Data

This data was delivered to BI Intelligence's ***Ultimate E-Commerce Research Bundle*** *subscribers. You can get access to all of this information and other timely updates when you sign up today.*

OUR TOP 5 PAYMENTS PREDICTIONS

Although it's a cutthroat industry, 2017 still stands out as a particularly competitive year for payments. Facing squeezed interchange rates, accelerated payments expectations, and expanded fraud threats, firms across the payments value chain raced toward scale and monetization. With digital disruption only beginning to gain steam, the pace of change is once again set to grow next year. From our research, understanding of industry trends, and conversations with industry leaders, BI Intelligence has identified five predictions for payments in 2018.

1. A wave of large retailers will begin to accept cryptocurrencies, driven by rising consumer interest

Cryptocurrencies like Bitcoin and Litecoin hit mainstream awareness off the back of rising prices in 2017; Bitcoin reached highs of around $800 in 2016 and exploded to over $19,000 in 2017. But while sky-high prices garnered headlines, merchant acceptance remained low — Overstock, Newegg, and Expedia are among the small handful of merchants currently accepting Bitcoin. In 2018, rising consumer interest, lower transaction fees, and antifraud benefits will lure more large merchants to add cryptocurrency options. According to a senior executive at eBay, the e-commerce firm is now considering adding Bitcoin as a payment option, for example. Whether rising acceptance results in significant payments volume will depend on whether the cryptocurrencies stabilize in price, as few will want to pay with a vehicle that could double in price tomorrow.

*This data was delivered to BI Intelligence's **Ultimate Payments Research Bundle** subscribers. You can get access to all of this information and other timely updates when you sign up today.*

2. With droves of sensitive information compromised, payments firms will accelerate security acquisitions and partnerships

The Equifax breach — which compromised the information of 143 million citizens — is making it hard to justify using information like Social Security numbers in authentication. It's also adding to already high fraud concerns, after 15.4 million US consumers were affected by identity fraud in 2016, according to Javelin. As fraud continues to grow, it will be crucial for firms to increase security investments. Some firms have already started bolstering their security measures — Mastercard acquired Brighterion, a software company that specializes in artificial intelligence (AI), for example.

Next year, payments firms will double down on acquisitions and partnerships. Developing next-generation security solutions in-house can be time-consuming and costly — for example, a moderately experienced AI expert can earn up to $500,000, according to The New York Times. Instead, partnering with or acquiring security companies will allow payments players to gain access to new technology in a fast and cost-effective way. And as the fraud threat grows — card fraud is expected to reach $31.67 billion by 2030, up from $27.69 billion in 2017, according to Nilson — payments firms will need to invest accordingly in their security investments to keep ahead of sophisticated fraudsters.

*This data was delivered to BI Intelligence's **Ultimate Payments Research Bundle** subscribers. You can get access to all of this information and other timely updates when you sign up today.*

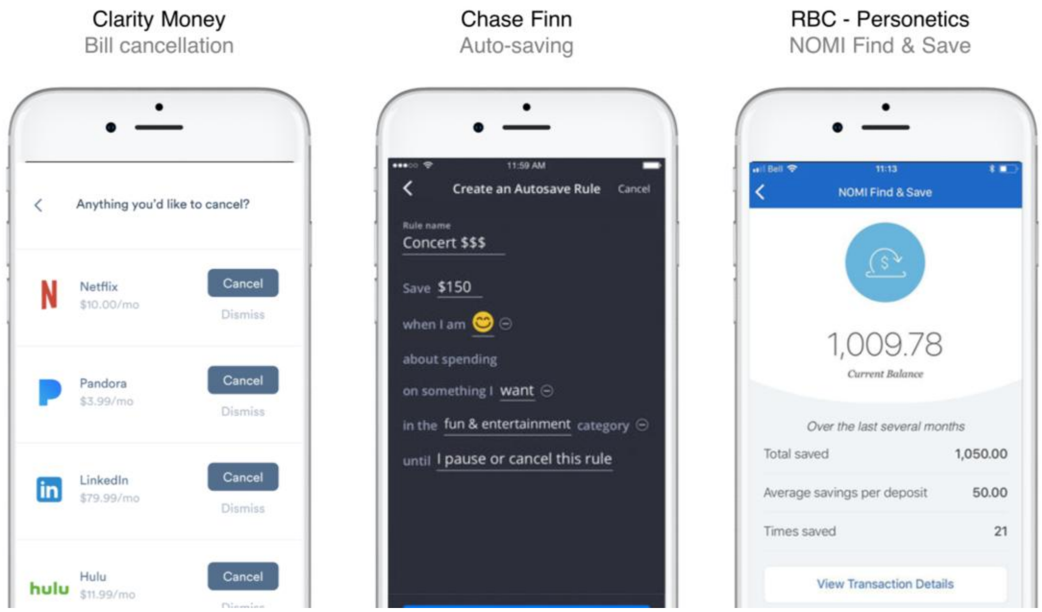
3. Digital money management features, like budgeting tools and spending controls, will become banks' tool of choice to attract millennials

Today, 53% of millennials would trust a tech giant like Apple, Amazon, Facebook, Google, or Microsoft more than a bank for financial services, according to a 2017 BI Intelligence study. With tech giants rolling out services like digital prepaid cards, the threat of young customers turning to tech providers for banking needs is growing larger. In the coming year, BI Intelligence predicts several leading banks will fight back by rolling out digital money management features that appeal to the generation's tech appetite and budgetary needs.

Here are two money management features banks will add to attract millennials:

- **Cancel recurring expenses.** Digital services like Trim and Clarity Money allow users to easily see how much services like Netflix and Spotify cost, and cancel them if necessary to save money. The ability to cancel recurring payments is likely to grow more popular next year since Mastercard released its Consumer Controls application programming interface (API) in October, which lets banks integrate the feature into online or mobile banking.

- **Automated savings.** Setting aside money each paycheck is a chore that could keep millennials from building healthy saving habits. Services like Finn from Chase ease the process by letting users set goals and automatically take out certain amounts of money at specified intervals. More banks will roll out this feature to grow positive financial habits among customers and earn their loyalty.



*This data was delivered to BI Intelligence's **Ultimate Payments Research Bundle** subscribers. You can get access to all of this information and other timely updates when you sign up today.*

4. Regulatory binds will loosen, creating opportunity for growth in banking and payments

Since President Donald Trump assumed office in January, the payments space has remained relatively unchanged. But in 2018, that's likely to shift, thanks to potential changes on the horizon in two key areas:

- **The CFPB.** Mick Mulvaney, President Trump's briefly embattled pick for CFPB director, isn't expected to gut or shut down the agency. However, many expect he will roll back the stringent guidelines and regulations that the CFPB has issued in the past few years, creating revenue opportunities for payments players.

- **Dodd-Frank.** In June, the US House of Representatives voted to repeal aspects of the financial reform Dodd-Frank Act. Though most of the reforms repealed don't directly touch the payments aspects of these players' businesses, it could open the door to more sweeping deregulation, including potential changes to the Durbin Amendment, which governs interchange fees specifically.

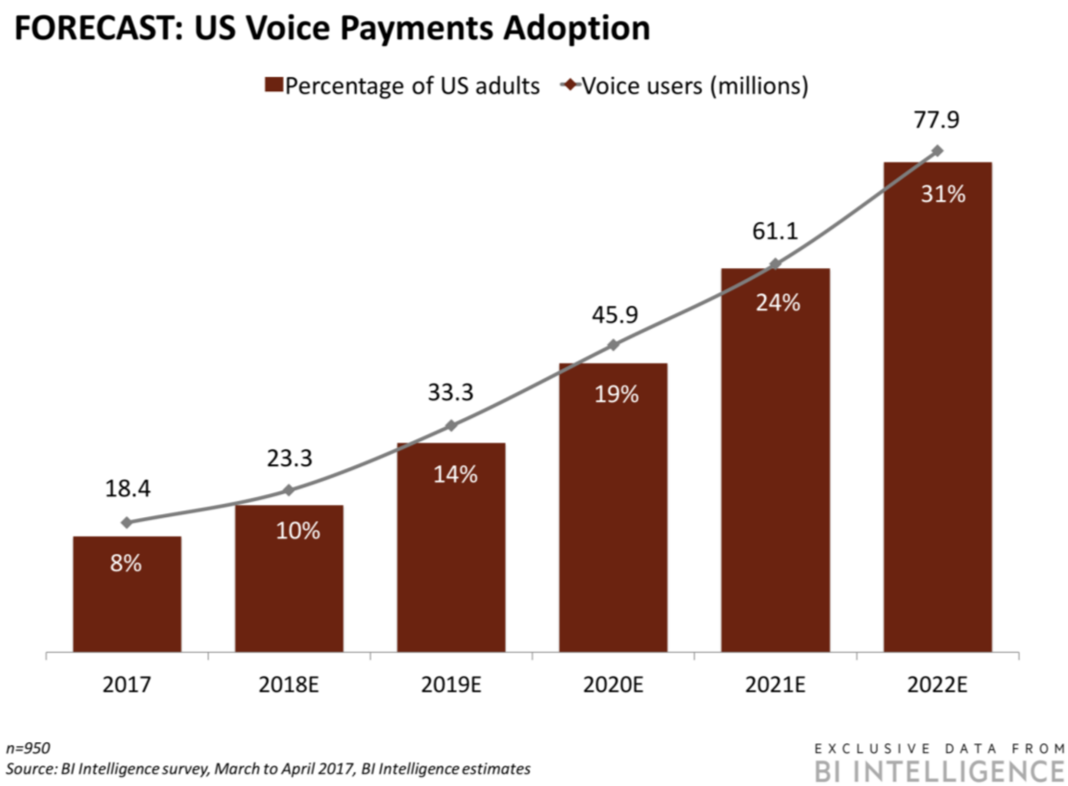
*This data was delivered to BI Intelligence's **Ultimate Payments Research Bundle** subscribers. You can get access to all of this information and other timely updates when you sign up today.*

5. Amazon will likely take the lead in voice payments by creating new payments opportunities

With its voice-enabled smart speakers, televisions, and car interfaces gaining in popularity, Amazon is well positioned to popularize voice-based payments, which BI Intelligence expects to hit 10% adoption in 2018. Next year, Amazon's intelligent assistant Alexa will likely be the first smart assistant to funnel meaningful voice payments volume, beating out competitors like Google and Apple, thanks to two factors:

- **Reach.** Alexa is one of the most popular voice assistants in the US, holding a 68% share of the smart speaker market. That reach, which extends beyond Echo devices and into cars and other in-home devices, will give Amazon a leg up as voice payments popularize. This is because Alexa could become omnipresent — usable to pay for gas in the car or to reorder paper towels at home.

- **Monetization strategy.** Amazon’s primary gain from rising voice payments will be increased shopping and engagement on its own retail service. It will also create a secondary revenue stream by allowing third-party skill developers to add Amazon Pay, which lets users pay using stored cards on Amazon, to their Alexa apps. Amazon is likely to take a cut of these payments, giving it new fee-based revenue and the opportunity to build a scalable system.



*This data was delivered to BI Intelligence's **Ultimate Payments Research Bundle** subscribers. You can get access to all of this information and other timely updates when you sign up today.*

OUR TOP 5 FINTECH PREDICTIONS

The fintech industry had a dynamic year in 2017. The industry as a whole adopted a more stable pace of growth, and new regulations opened up more opportunities for startups. We also began to see greater cooperation between globally dispersed fintech hubs, and new hotspots of fintech activity come to the fore. And, while older fintech segments definitively secured their spot in the broader financial system, new categories of fintech also took off at an astounding pace. Based on these developments, our proprietary research, and the trends we've seen intensifying as we head into the new year, here are our top five predictions for fintech in 2018.

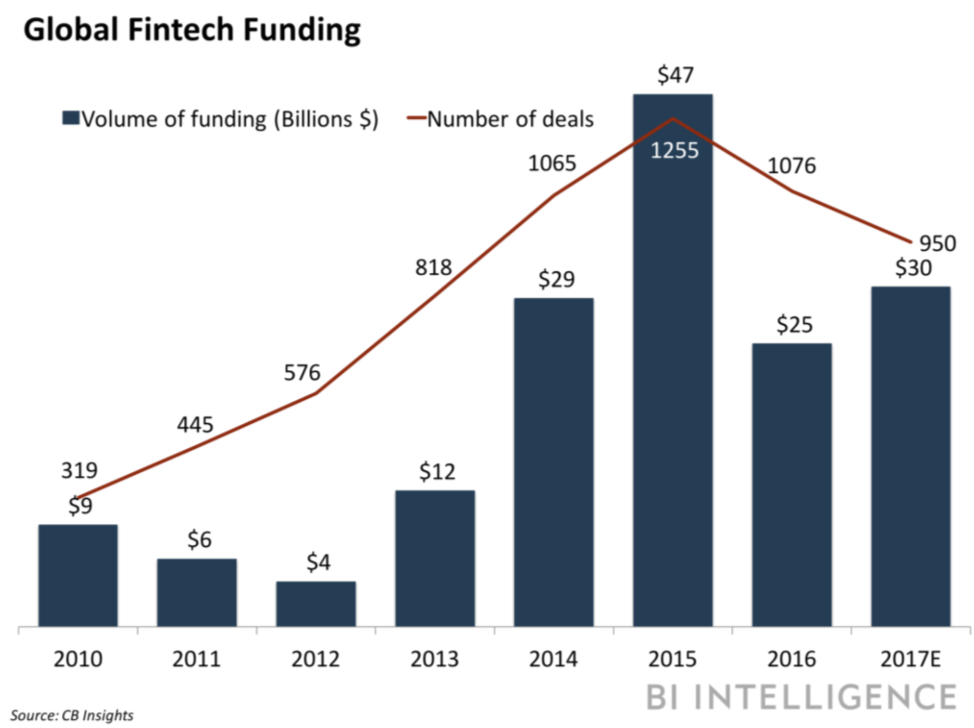
1. We'll start seeing quantifiable results of fintech partnerships

The past year saw a flurry of fintech agreements formed between regulators and fintech centers in ever-more geographies. These agreements give participants a forum in which to discuss developments across fintech markets, and allow different countries' fintechs to set up shop in each other's jurisdictions and leverage local resources more easily. However, while these deals have become ubiquitous, we've yet to see them produce tangible results. This seems likely to happen next year, as some of the earliest agreements, like the pact between the UK's Financial Conduct Authority and the People's Bank of China, have had time to mature. As such, in 2018, we can expect to see outcomes that may include fintechs receiving funding and partnership deals in their partner countries, agreement participants aligning their fintech regulatory regimes to make compliance easier for each other's startups, and an upsurge in participant countries' fintech industries. Once results start materializing, this will prompt more such deals to be formed.

This data was delivered to BI Intelligence's ***Ultimate Fintech Research Bundle*** *subscribers. You can get access to all of this information and other timely updates when you sign up today.*

2. Global fintech funding will climb back to historic highs of around $45 billion

The growth will be driven by more mature fintechs with proven business models requiring larger sums in order to scale, particularly in the alt lending and insurtech segments. Additionally, we expect to see increased volumes of corporate investment. That will come from legacy financial services players in particular, which will put more into fintechs, either directly or via corporate venture arms. Such investment will be prompted by incumbents' increasing confidence in their skill at understanding fintechs' business models, along with their growing ability to overcome hurdles to partnering with startups. We expect total fintech funding to surpass 2017 levels, and return to levels last seen in 2015.



*This data was delivered to BI Intelligence's **[Ultimate Fintech Research Bundle]** subscribers. You can get access to all of this information and other timely updates when you sign up today.*

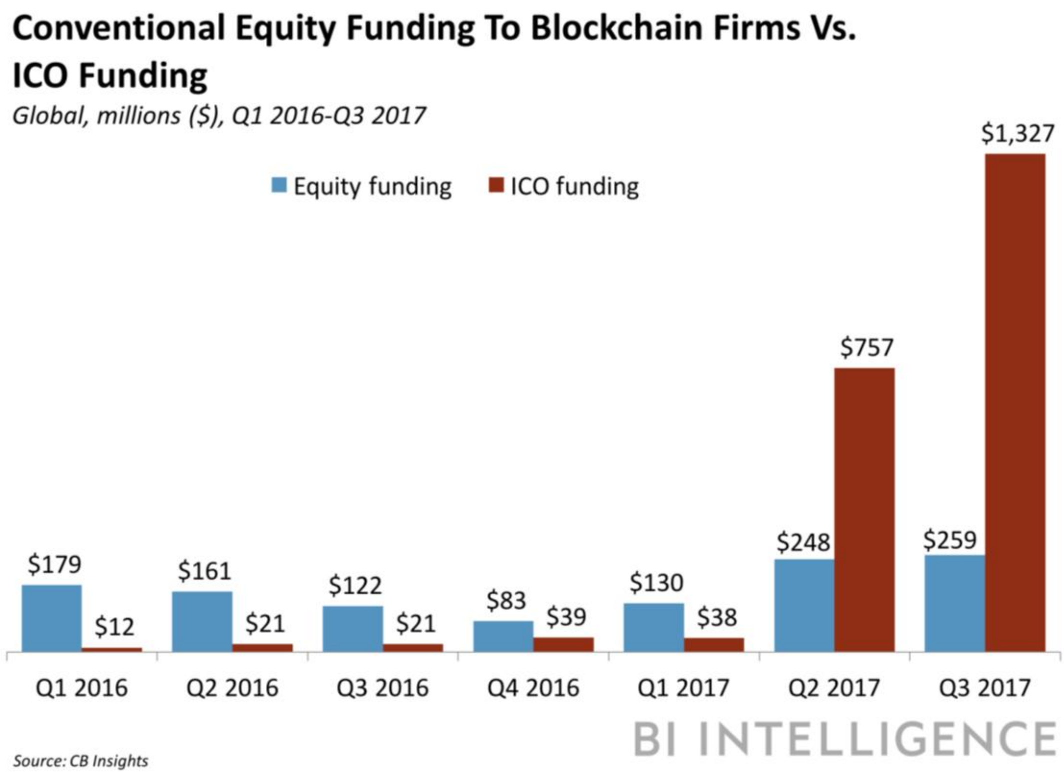
3. Open banking will cause major disruption, particularly in Europe

The implementation of data-sharing requirements, namely the EU's PSD2 and the UK's Open Banking regulations, in early 2018 will leave banks scrambling to ensure compliance. Not only will they have to ensure they are ready in a technological sense, but some will also have to work hard to avoid losing customers, and revenue, while working through the inevitable glitches that accompany any new tech release. As such, banks that have already started testing their open application programming interfaces (APIs), and forming strategies for working alongside third parties, will pull ahead of their less-prepared competitors. In the US, meanwhile, open banking will proceed at a more sedate pace, though banks that look to democratize data early will gain a significant advantage, as the business model is set to become a necessity to remaining relevant in the financial services ecosystem of the future.

*This data was delivered to BI Intelligence's **Ultimate Fintech Research Bundle** subscribers. You can get access to all of this information and other timely updates when you sign up today.*

4. Global regulators will put a damper on the initial coin offering (ICO) boom

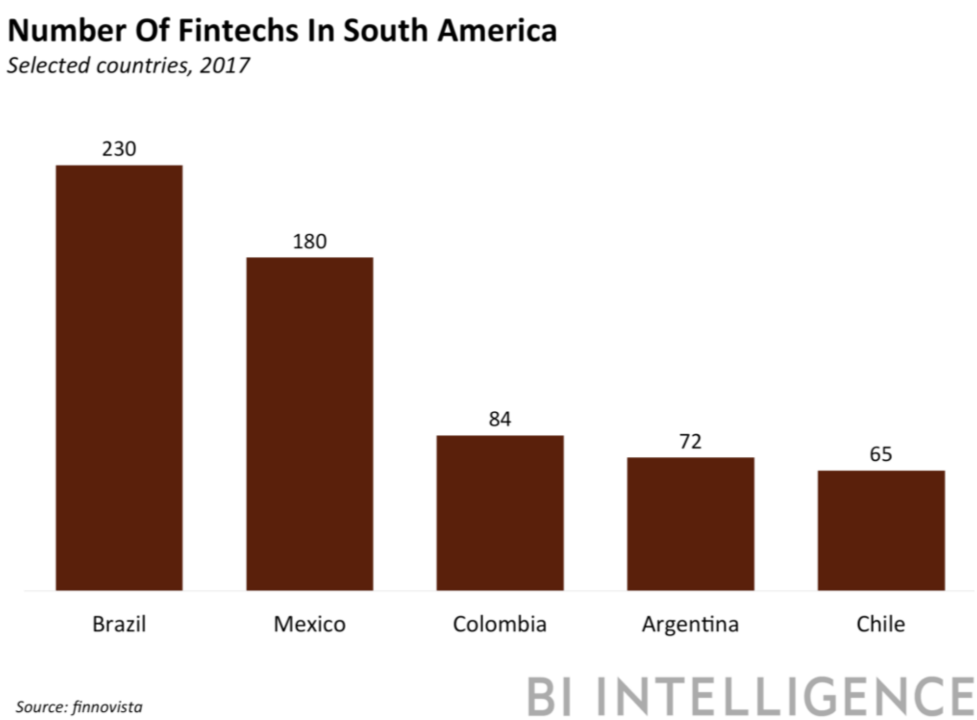
ICOs have been a popular way to raise funding for blockchain-based companies throughout 2017, resulting in more money secured this way than via conventional equity funding. However, with their increasing popularity, more and more countries' regulators have issued warnings due to perceived safety issues. To protect investors, it's likely that more rules regarding this funding method will be issued in the near future, making launching ICOs more difficult. As a result, we expect to see fewer of them in 2018. That's probably a good thing, though, as it means companies that do launch ICOs will have complied with stricter rules, lowering the risk of these investments.



*This data was delivered to BI Intelligence's **Ultimate Fintech Research Bundle** subscribers. You can get access to all of this information and other timely updates when you sign up today.*

5. Latin America will see a boom in fintech activity

Latin America has not been a global center for fintech activity up to this point. However, some firms in the region, particularly in Brazil, did manage to secure big funding rounds throughout the past year, while the number of new fintechs established continues to surge, suggesting its position may be changing. These startups are capitalizing on Latin America's large unbanked population, which isn't served appropriately by conventional financial institutions, by rolling out cheaper and easier to access alternative services. This wide addressable market boosts their chances of success, and of investors receiving high returns on their investments, making Latin American fintechs an increasingly attractive investment opportunity. Hence, we can expect to see Latin American fintech hubs such as Sao Paulo become global contenders in 2018, although it will be sometime yet before funding levels in the region reach those seen elsewhere.



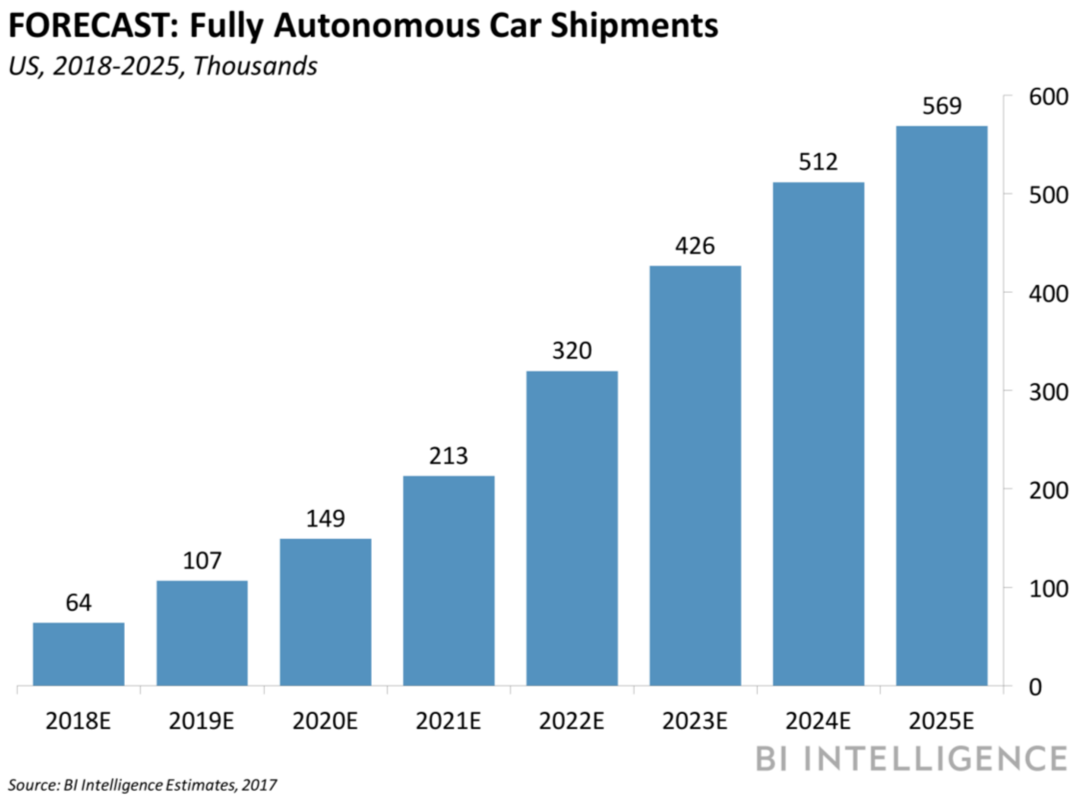
*This data was delivered to BI Intelligence's **Ultimate Fintech Research Bundle** subscribers. You can get access to all of this information and other timely updates when you sign up today.*

OUR TOP 5 TRANSPORTATION AND LOGISTICS PREDICTIONS

The transportation and logistics space accelerated its shift toward a digital future in 2017. In the auto world, both new contenders and entrenched incumbents are moving past limited tests and gearing up for the commercial launch of autonomous cars. And nearly all of these players have honed in on using autonomous taxis in urban ride-hailing services as the near-term opportunity. That has set the stage for urban self-driving mobility to become one of the most competitive and compelling areas in all of tech in the next couple of years. Meanwhile, accelerating growth in e-commerce and rising freight demand is opening opportunities for digital technologies to upend the $4 trillion global logistics industry. Based on these developments and our proprietary research, here are our top five predictions for transportation and logistics in 2018.

1. The real self-driving car race will begin

Automakers and tech companies have been in a race to put self-driving cars on the road for several years. In 2018, we expect that race will come to an end, as Waymo, GM, and possibly others will commercially launch self-driving cars in ride-hailing services. Then, the real autonomous car race — to scale up around the world and leverage the vehicles to create new business models and revenue streams — will begin. Although developing self-driving cars has been a monumental task, deploying them widely throughout the world and making money off them will be even more painstaking. Companies will have to convince consumers that self-driving cars are safe, navigate an uncertain regulatory landscape, manage partners that may have competing interests, rapidly iterate their self-driving technologies and vehicles as they gain new insights from commercial deployments, and incorporate autonomous cars as a core part of their business. This battle will last at least a decade and determine the real winners in the self-driving car space.



*This data was delivered to BI Intelligence's **[All-Access Membership]** subscribers. You can get access to all of this information and other timely updates when you sign up today.*

2. Uber will continue to grow its US business — and lose market share

Uber had the most tumultuous 2017 of any company in the world, but its US business continued to grow. The ride-hailing giant's US sales dropped significantly in January and February, but rebounded shortly after, advancing 15% from March to September 2017, according to data from Second Measure. However, Lyft's US business grew more than twice as fast during that period, causing Uber's market share to fall from 83% at the end of September 2016 to 74% a year later. Lyft also saw its US market share increase from 15% to 22% in that time. We believe this trend will continue for the near future, and Lyft will capture more than 35% of the US ride-hailing market by the end of 2018. Lyft recently closed a $1 billion funding round (led by Alphabet), and is reportedly seeking another $500 million. That money will likely go toward several initiatives, including increased marketing efforts in the US and its continued expansion overseas, putting Uber on the defensive in multiple geographies.

Uber has yet to close its proposed investment deal with SoftBank, which would inject $1 billion in new funding into the startup, and the deal could still fall apart. Meanwhile, Uber is dealing with intense competition from Grab in Southeast Asia and Ola in India, and now faces the prospect of competing with China's Didi Chuxing in the Mexican ride-hailing market next year. Additionally, the company still has many vacant executive positions that it needs to fill, and has a new goal of reforming its finances to prepare for an initial public offering (IPO) in 2019. Until the company fills out its leadership and formulates a broad strategy for defending its share in (or possibly exiting) different markets while steering toward an IPO, we expect Lyft will continue to successfully grow its market share.

*This data was delivered to BI Intelligence's **All-Access Membership** subscribers. You can get access to all of this information and other timely updates when you sign up today.*

3. Drone regulation in the US will make major strides

Drone adoption in the US, particularly for commercial use cases, has long been held back by regulations that are more restrictive than in other geographies. Companies that want to fly drones at night, over crowds, or beyond the sight of their pilots need to gain special exemption from the Federal Aviation Administration (FAA), which remains a cumbersome and time-consuming task, despite efforts to streamline it. Additionally, local and state governments have implemented their own drone rules that sometimes conflict with FAA requirements. The FAA is expected to release new commercial drone regulations next year, but many in the industry have expressed concerns that they could be delayed because of law enforcement issues.

Still, we expect major strides will be made to resolve these regulatory issues in 2018, which will set the stage for new drone use cases in the US. The Department of Transportation (DoT) is taking applications from state and local governments to conduct new commercial drone tests next year in their respective jurisdictions. The tests should help clarify the roles that federal, state, and local governments should play in regulating drones, simplifying compliance for drone operators. Additionally, regulators are looking to open up new use cases for commercial drones that have previously been restricted. The FAA just recently granted CNN the first waiver to fly drones over crowds, and the DoT's tests will focus specifically on use cases, like drone delivery, that have been prohibited under current law. These initiatives will provide extensive opportunities to learn how such use cases should be regulated, arming the FAA with valuable insights as it crafts new regulations, even if they aren't released by the end of the year.

*This data was delivered to BI Intelligence's **All-Access Membership** subscribers. You can get access to all of this information and other timely updates when you sign up today.*

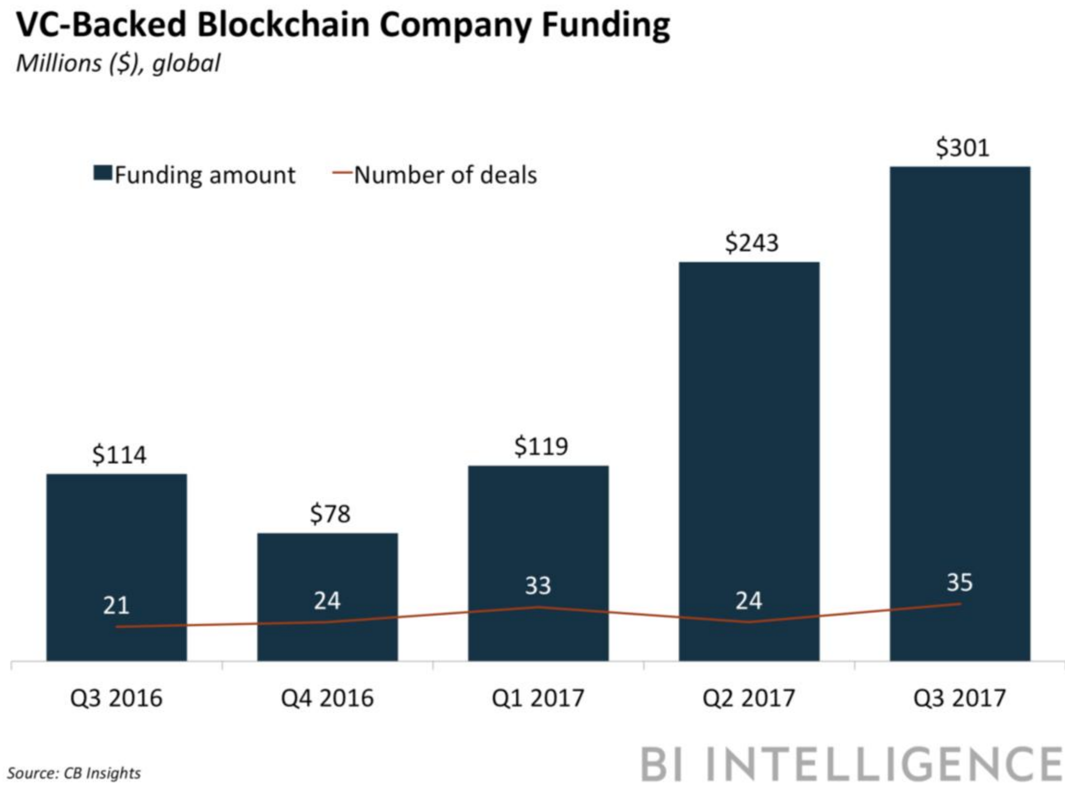
4. 2018 will be a banner year for logistics startups

Startups targeting nearly every area of logistics drew interest and investment in 2017. In e-commerce delivery, Target acquired grocery delivery startup Shipt and Grand Junction, which provides software for managing last-mile deliveries. Meanwhile, Walmart purchased Brooklyn-based Parcel to enable same-day delivery in New York City. And Freight forwarding startups like Flexport, Freightos, and Freighthub raised significant funding rounds of $20 million or more. Trucking tech startups also saw a spike in investment, while warehouse automation startups gained tens of millions of dollars in venture funding. These trends will only accelerate in 2018, as parcel and freight volumes continue to strain capacity for carriers, pushing them to find more innovative ways to move goods faster and cheaper. Look for the trucking tech space, buoyed last year by big funding rounds such as those raised by Peloton, Convoy, and Transfix, to see even bigger investments in 2018. That will be driven by the introduction of semi-autonomous truck platooning systems like Peloton's, which promise considerable fuel cost savings for truckers, as well as the proliferation of on-demand "Uber for trucking" platforms both in the US and worldwide. Last-mile delivery will also continue to be a key area of investment, as will startups focused on using artificial intelligence (AI) and data science to optimize logistics networks.

*This data was delivered to BI Intelligence's **All-Access Membership** subscribers. You can get access to all of this information and other timely updates when you sign up today.*

5. Logistics, tech, and finance companies will come together on blockchain tests

The majority of major logistics providers have not progressed any further than the exploration phase in their blockchain development. UPS and FedEx, for instance, both recently joined groups dedicated to blockchain research and standardization. Next year, logistics providers will move beyond the research phase into testing blockchain for specific use cases, and will look to leverage partners in the financial and technology spaces that can help them move their efforts forward. Using blockchain to record and track shipments and shipping transactions will benefit all the players in the logistics ecosystem, including shippers, carriers, insurers, and institutions providing trade finance, by increasing transparency and lowering back-office costs. Additionally, blockchain adoption in the logistics industry will lead to new revenue opportunities for tech companies, which can provide hosting and consulting services for blockchain projects. These benefits will drive new partnerships around blockchain in logistics, such as the joint pilot conducted recently by IBM, marine shipping giant Maersk, and Ernst & Young to use blockchain to manage marine insurance transactions.



This data was delivered to BI Intelligence's ***All-Access Membership*** *subscribers. You can get access to all of this information and other timely updates when you sign up today.*

DON'T MISS OUT ON THE RESEARCH YOU NEED TO GET AHEAD IN 2018!

You can start taking advantage of all the knowledge and insight *BI Intelligence* has to offer with a full membership – **at a $2,000 discount**. With this level of membership, you will gain immediate access to over $110,000 worth of annual research when you get…

- All 7 of our insightful newsletters
- Every research report we release during your subscription term
- Access to our research center and extensive reports archive
- Exclusive proprietary data from the *BI Insiders Panel*

For the professional who wants daily downloads of the most important news and deep dives into the game-changing trends behind the news, the [ALL-ACCESS]() service level is perfect for you.

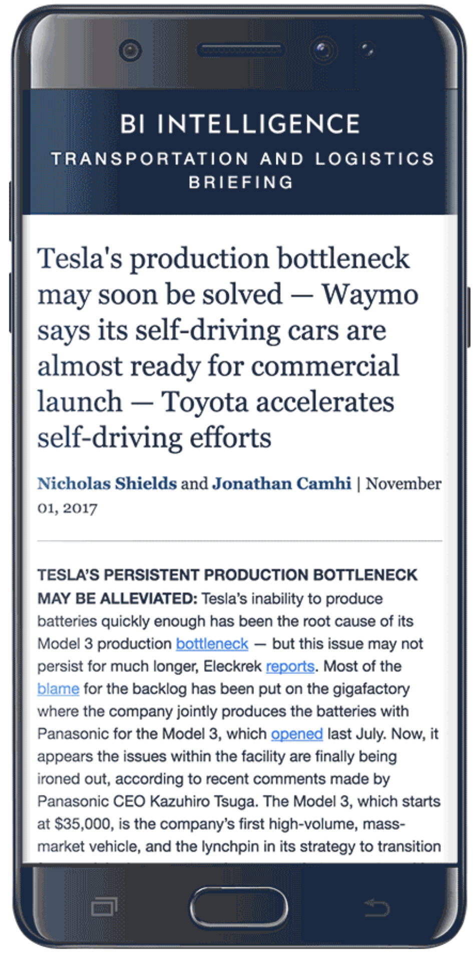
You have access to **everything** *BI Intelligence* produces: ALL of our latest research reports, ALL of our newsletters, complete access to our archive of past reports, plus a steady stream of extra data and research you won't find anywhere else.

Expertly Researched Reports

Our reports are packed with data, insights and analysis to help you understand your chosen subject area in fresh new ways.

As a *BI Intelligence* subscriber, you get complete access to the scores of reports we research and write each year, including popular titles like: *The Fintech Ecosystem, The Internet of Things Ecosystem Report, The Payments Ecosystem, The Chatbots Explainer, The Messaging App Report, The Social Engagement Report, and The Native-Advertising Report*.

Carefully Curated Newsletters

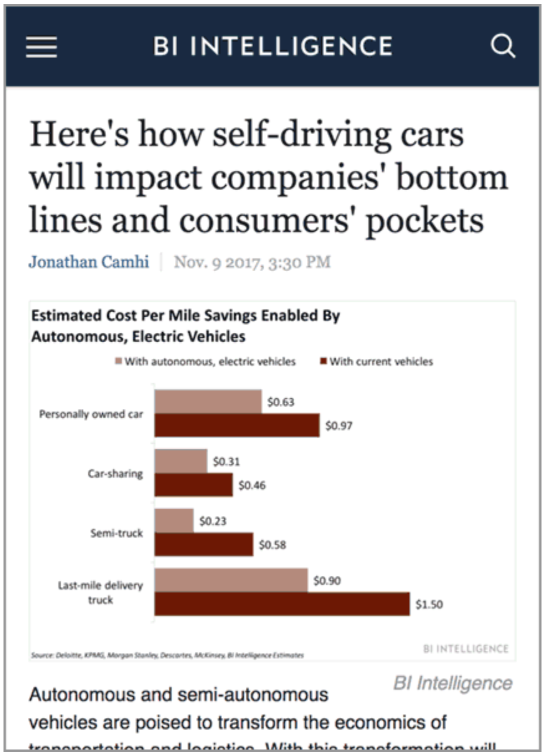


With access to all 7 of our newsletters, you'll know about all the important developments that are impacting your company, your bottom line, and even your career.

Our newsletters give you the context around critical new developments so that you can run your business more efficiently, more profitably and more successfully.

Every morning the *BI Intelligence* team will deliver you daily briefings covering everything you need to know in critical areas:

- The insights you need to make smarter decisions
- The new trends that can disrupt existing business or open up exciting new opportunities
- The strategies your competitors are pursuing (so you can stay one step ahead of them!)
- The right moves to grow your business and advance your career



BI INTELLIGENCE

Here's how self-driving cars will impact companies' bottom lines and consumers' pockets

Jonathan Camhi | Nov. 9 2017, 3:30 PM

BI Intelligence

Autonomous and semi-autonomous vehicles are poised to transform the economics of

Timely Updates

At least once a week, the *BI Intelligence* team will send you thought-provoking "extra" content in the form of charts, graphs, and graphics, along with our analysis of what they mean.

These updates are just another way we try to keep you ahead of the curve on the topics that interest you most.

The BI Insiders Panel

We constantly survey over 18,000 hand-picked digital professionals, ranging from CEOs to Millennials to see where they stand on issues critical to digital industries, and then publish the results for our subscribers.

Our most recent report on social media platforms revealed valuable intelligence like: Why LinkedIn was the most trusted digital platform, the two critical weaknesses that are damaging the user experience on YouTube, how advertisers can best leverage the strengths of Twitter and mitigate the weaknesses, and much, much more.

Other organizations attempt to capture digital trends and perceptions accurately, but no one does as many different surveys as we do and analyzes them so quickly to make sure cutting-edge insights get in your hands as fast as possible.

STAY AHEAD OF YOUR COMPETITION FOR LESS THAN $210/MONTH

Don't be left in the dark while your competition gets ahead each morning with this critical industry news and analysis. Subscribe risk-free, and get all the valuable research reports, daily newsletters, and supplemental data that *BI Intelligence* has to offer.

And if you order today, you pay just a fraction of what it would cost if you bought it all separately. For less than $210 a month, you will have access to **over $110,000 worth of new annual research**.

Your Satisfaction Is 100% Guaranteed

Try the ALL-ACCESS level membership for 14 days — if you are not completely satisfied, you may cancel before the end of your money-back guarantee period and we will refund the full amount you've paid. Any complimentary bonus reports you receive are yours to keep.

Click Here and Get Started Now, Risk-Free

BI INTELLIGENCE

BI Intelligence, Business Insider's premium research service, provides in-depth insight, data, and analysis of everything digital. Our research is fast and nimble, reflecting the speed of change in today's business. We give you actionable insights that enable smarter and better-informed decision-making. We publish in-depth reports, news, and an exhaustive library of charts and data focusing on key areas of tech: mobile, e-commerce, digital media, payments, the Internet of Things, and more.

If your organization would like to learn more about our research, including a license to republish our charts, please contact: intelligence@businessinsider.com