

Consumer Behavior in 2018: Three Trends to Watch



Introduction

Understanding the Digital Consumer Journey

This report presents Verto Analytics' findings and analysis on consumer behavior, reflecting proprietary data (gathered between 2016 and 2017) from U.S. adult (aged 18 and above) audiences. Based on this data, our team has identified three trends we predict will strongly impact brands, advertisers, agencies, and digital publishing companies in the coming year:

1. Mobile Gaming Stagnates

Have we reached the end of the road, at least for the moment, when it comes to mobile gaming hits? After the Pokémon GO phenomenon, there has not been a definitive mobile game hit, and the top mobile games rankings and user numbers have seemingly stagnated.

2. How Consumers Spend Their Time Online

While individual consumers still spend the bulk of their online time on social media, communications tools, and games, their attention — or the amount of time they spend — is shifting toward other types of content. Perhaps most worrying for online news publishers: the time spent per user on news and weather sites and apps showed one of the most significant declines, while sports- and travel-related apps and sites showed some of the biggest gains.

3. Keeping Pace with Digital Consumer Behavior

These new and sometimes subtle changes in consumer behavior mean we must adapt how we measure new devices and surrounding services. For example, the way we track web usage, an approach built over a decade ago, is not accurate or robust enough to measure micro-behaviors like app multitasking or complex consumer mobile journeys. Instead, we should anchor our measurement to the consumer so we can observe and adapt to changing cross-device habits — such as the role multitasking plays in online content consumption.

While these three trends shine a critical spotlight on some key market opportunities and challenges, I want to highlight a critical question for anyone in the consumer industry. How do you currently measure consumer behavior on digital platforms? New and sometimes subtle changes in consumer behavior mean we must adapt how we measure new devices and surrounding services. We're developing best practices to ensure we help companies understand and respond to changes in consumer behavior and new technologies.

Hannu Verkasalo
CEO

TREND 1:

Mobile Gaming Stagnates

Mobile games remain popular, but competition and user numbers have stagnated.

Mobile gaming sub-trends that emerged in 2017:



BIGGEST DISAPPOINTMENT:

Super Mario Run, Nintendo's highly-anticipated followup to Pokémon GO, entered Verto's list of top games at #14, with nearly 3.5 million users when it debuted in December 2016, and quickly moved to the #7 spot, with 4.8 million users, by March 2017. But user numbers (and presumably, player interest) quickly dropped: by April 2017, the game had fallen off our Top 25 list entirely.



BIGGEST CLIMBER:

Gardenscapes — New Acres was the 20th most popular mobile game in September 2016, with 2.5 million monthly players. After surging to #6, with 5.7 million players in May 2017, it settled into the #8 position by July 2017, with 5 million monthly players — an impressive gain for

a title from Playrix, a relatively obscure Russian mobile gaming company.



BIGGEST RISE AND FALL:

Panda Pop ranked at #16 last July, with 2.6 million monthly users, before enjoying a rapid climb to reach #7 by December 2016, with 4.7 million monthly users, before falling to #20 by July 2017, with just 2.3 million monthly users.



THE SLOW CLIMB TO THE TOP:

Clash Royale, a follow-up franchise to Supercell's hit Clash of Clans, was ranked at just #15 last July, with 2.8 million monthly users (compared to Clash of Clans' 4.3 million monthly users), before gradually making its way into the #10 spot by July 2017, with 3.9 million monthly users.

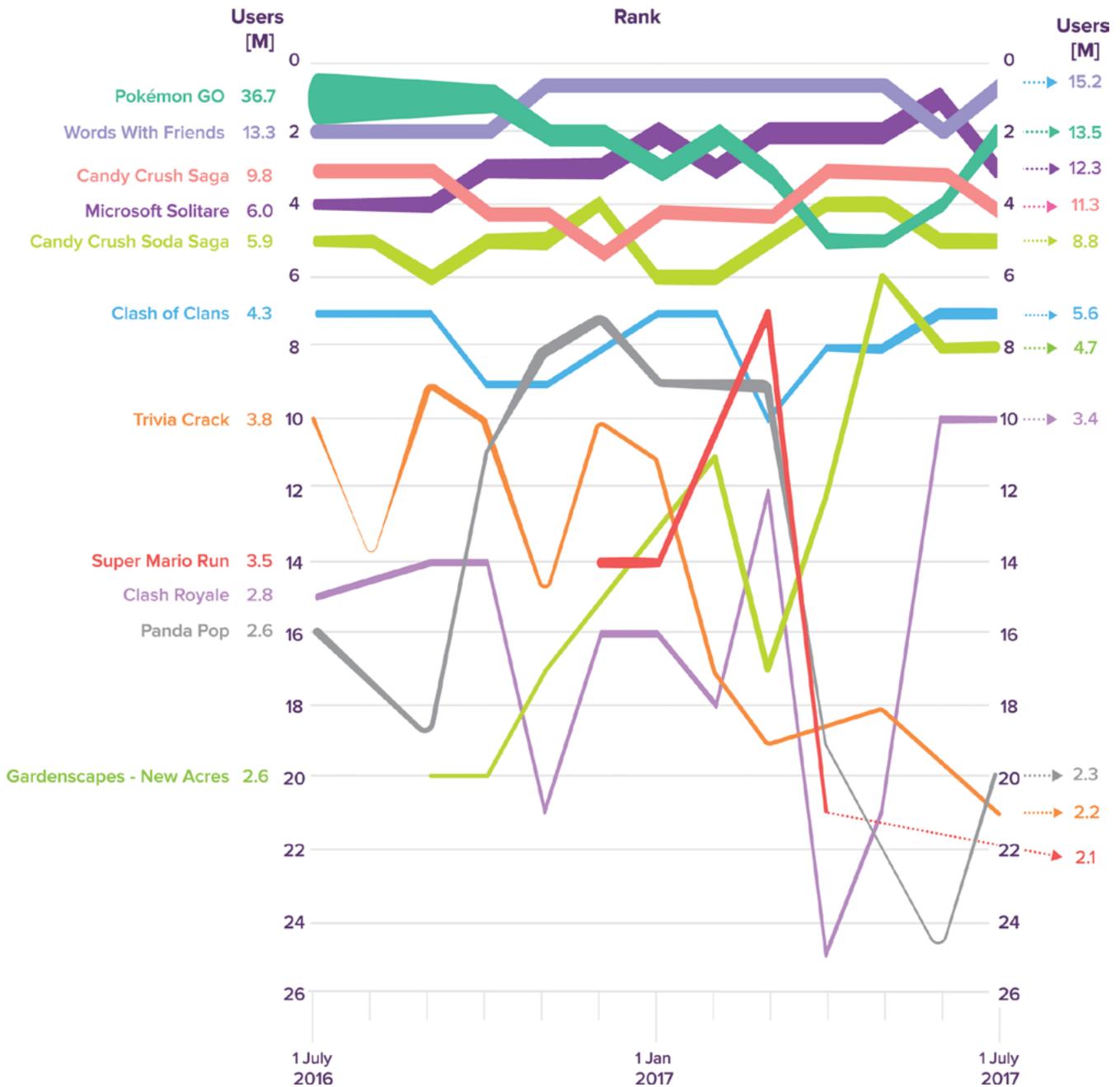
2016 was a banner year for mobile gaming companies: Tencent and Activision/Blizzard made multibillion-dollar deals to acquire stakes in Supercell and King (respectively), two industry powerhouses. And the phenomenal rise of Pokémon GO led to renewed interest in augmented reality (AR) gaming as a viable genre.

In comparison, 2017 was relatively quiet in terms of both investment and new hit titles, as the mobile gaming ecosystem stabilized; according to Verto Analytics data, the list of top-ranking mobile games remained unchanged in 2017, and user growth slowed; between July 2016 and July 2017, mobile gaming properties

gained about 12 million users, an increase of 10%. The same games (Words With Friends, Pokémon GO, and Candy Crush Saga) have maintained a near-iron grip on the top spots in Verto's leaderboard.

Despite being maligned as a mere fad, Pokémon GO has shown staying power; it held a consistent position in the top five most popular mobile games in 2017. In fact, the popularity of Pokémon GO appears to be positively influencing the AR game genre as a whole: the genre enjoyed a spike in popularity (as measured by monthly unique user numbers) when the game first debuted in July 2016 (see Chart 1). And, although it suffered a sharp

CHART 1: Growth and Decline of Selected Mobile Gaming Apps, July 2016-July 2017

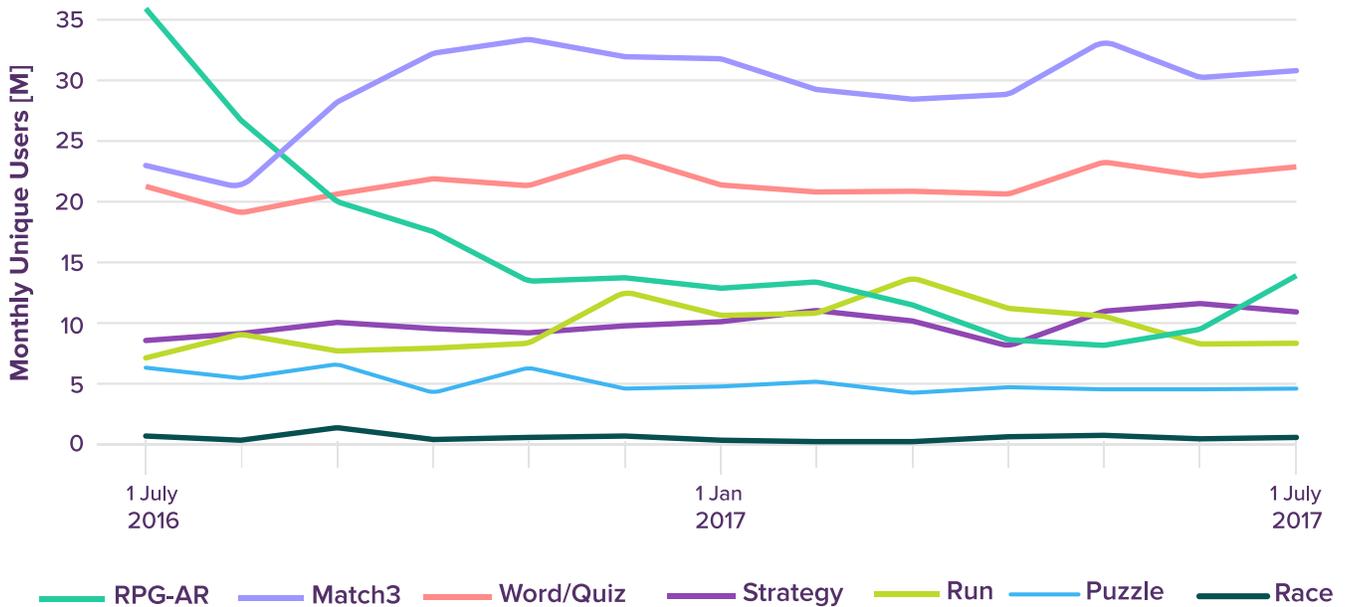


decline over the next 12 months, the AR and role-playing games (RPG) genre had regained some of its user numbers, and claimed about 14 million monthly users in July 2017, which puts it on par with the perennially-popular “Solitaire” genre (see Chart 2).

Unsurprisingly, the other two most popular game genres

(see Chart 2) reflect the top-ranking games: “Match 3” games (which includes the Candy Crush franchise) and “Word/Quiz” games (such as Words With Friends) have both increased their monthly user numbers over the past 12 months, although the “Match 3” genre has made significantly larger gains, from about 24 million monthly users in July 2016 up to just over 30 million as of July 2017.

CHART 2: Mobile Gaming Genre Growth Trends



Mobile gaming has been a constant presence in the headlines the past two years, buoyed by multibillion-dollar deals with superstar start-ups like Supercell and King, the incredible hype surrounding titles like Pokémon GO, and the mere fact that mobile games rank second only to social media and communications apps in terms of consumer time spent. But are we shifting away from a games ecosystem that supports one breakaway hit per year? Our analysis of the Word/Quiz, Match 3, Run, and Strategy genres (Charts 3-6) shows a relatively crowded ecosystem, dominated by a few key players — for now.

In the Match 3 and Strategy genres (Charts 4 and 5), for example, where bubble size (see chart below) corresponds to the number of each title’s monthly users, we can see that various spinoffs of Candy Crush and Clash of Clans currently dominate the ecosystem. But several other competitors are slowly cultivating the user numbers that could eventually unseat the Candy Crush empire. Similarly, our visualization of the Word/Quiz genre (Chart 3) shows an even more lopsided landscape ruled by Words With Friends. However, titles like Trivia Crack, Scrabble, and Word Cookies are currently vying for a distant second place. Meanwhile, the Run genre (Chart 6) shows us a much more equally-matched set of competitors, with Super Mario Run closely followed by a number of other titles.

CHART 3: Competitive Landscape, Word/Quiz Games

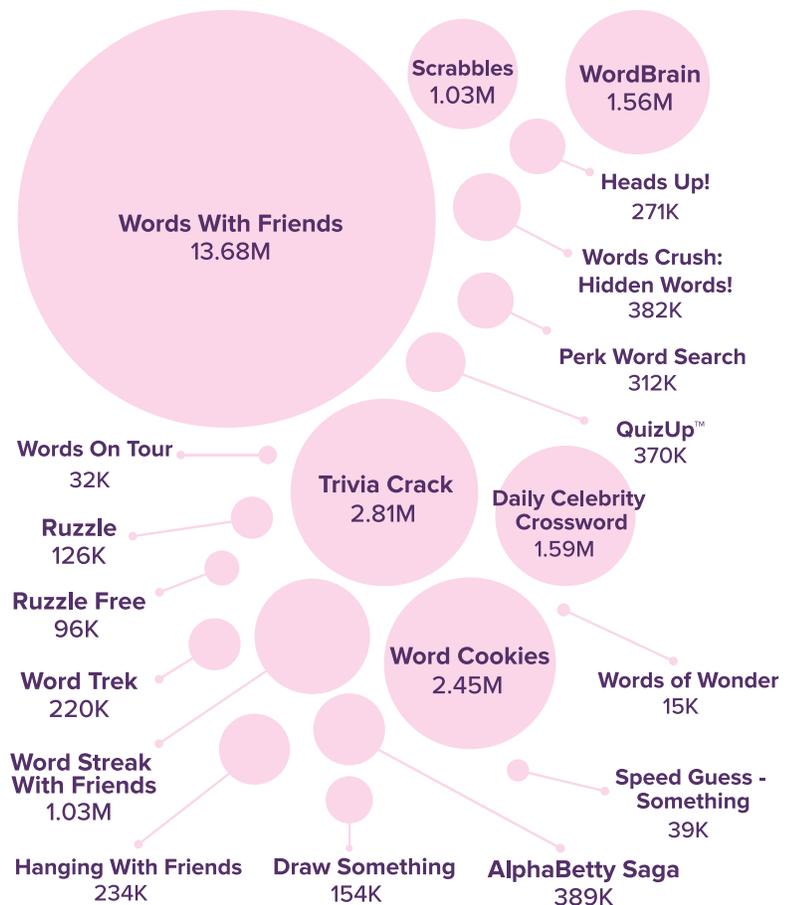


CHART 4: Competitive Landscape, Match 3 Games

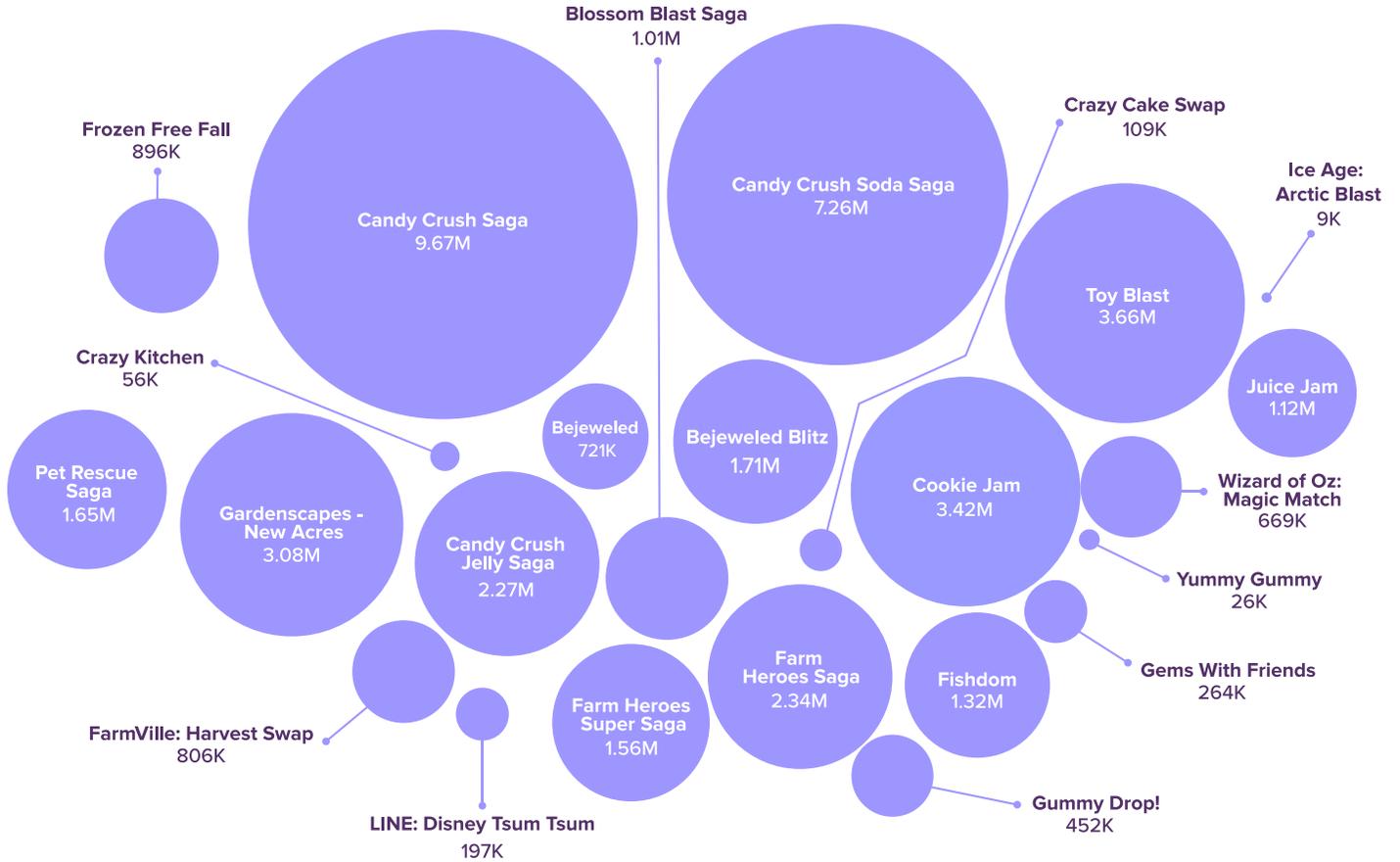


CHART 5: Competitive Landscape, Strategy Games

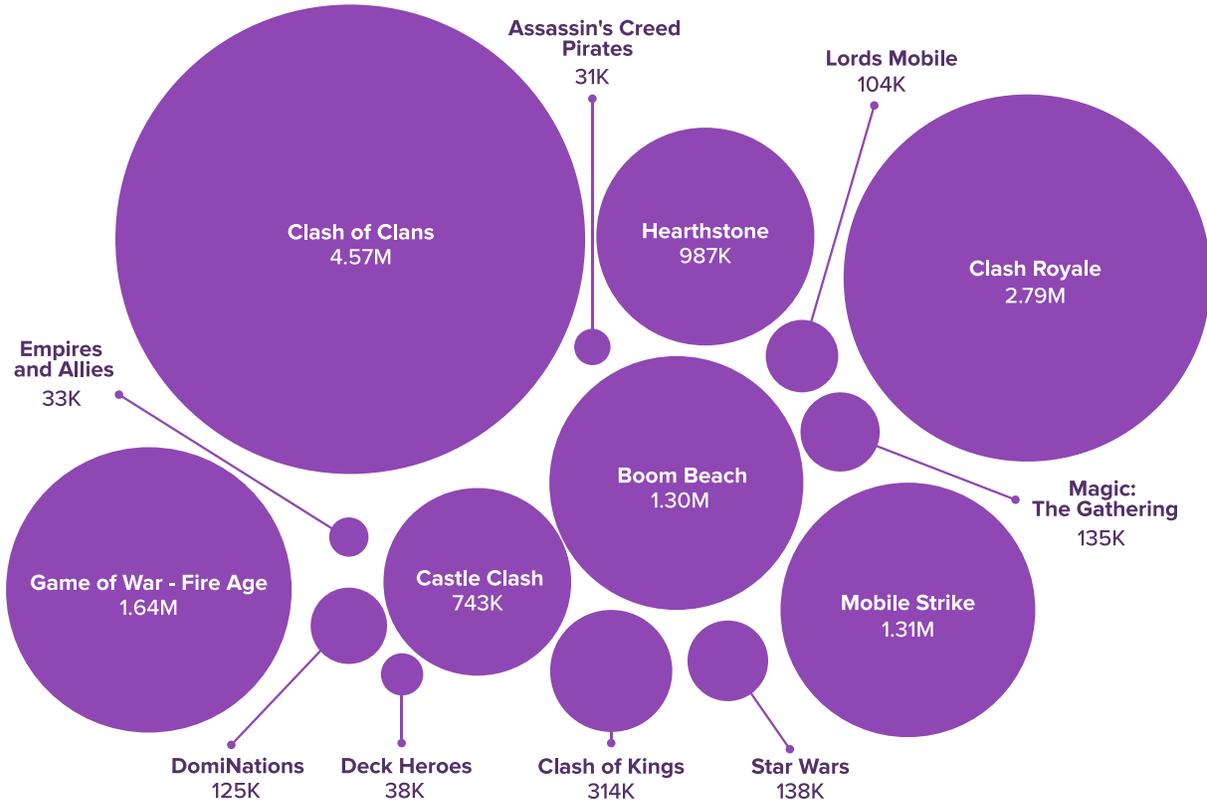
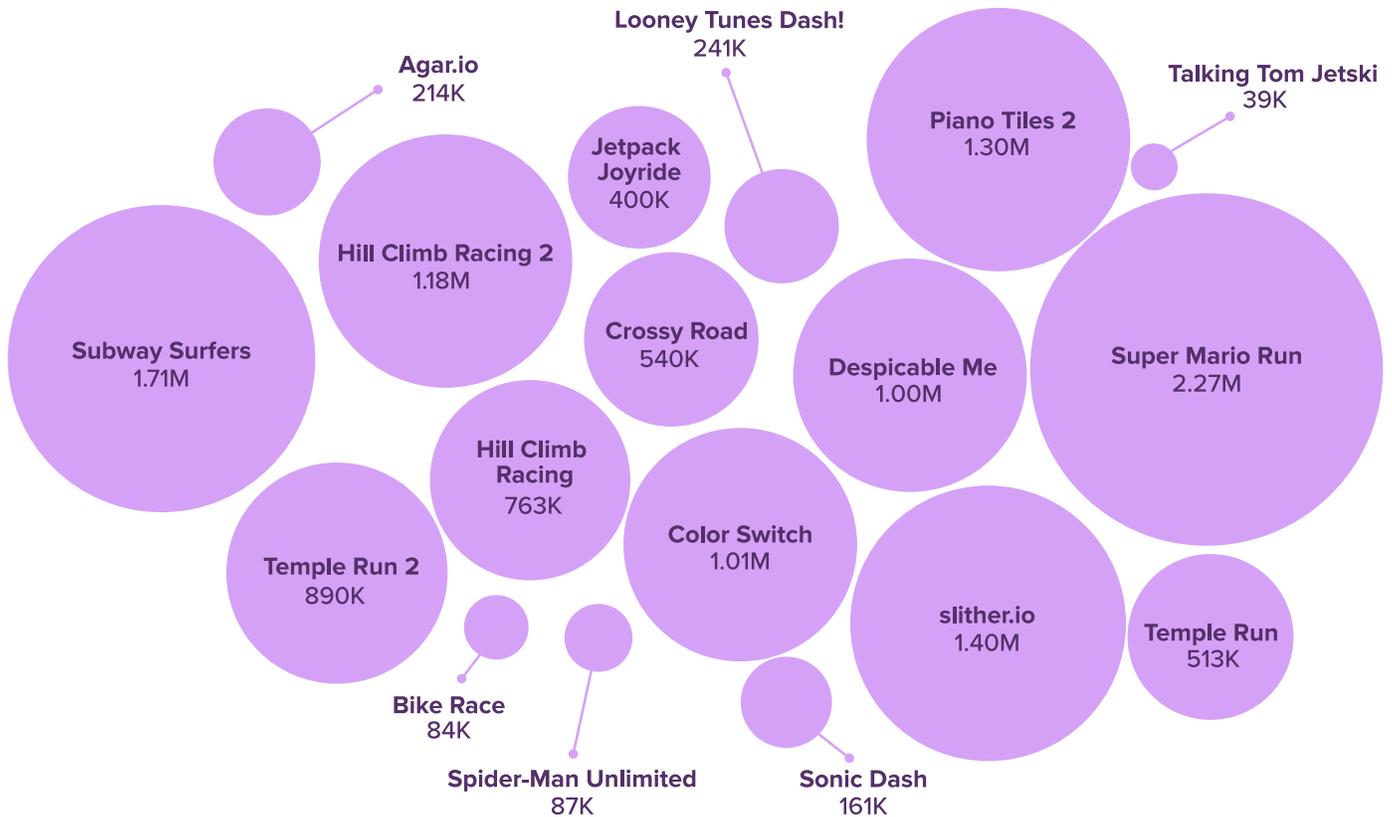


CHART 6: Competitive Landscape, Run Games



Takeaways

- ▶ User numbers and the amount of time consumers spend with mobile games stagnated between July 2016 and July 2017; however, this effect doesn't necessarily apply across the entire mobile games landscape.
- ▶ Instead, there's increased competition in specific gaming genres like Match 3 and Strategy, where many other titles appear ready to jockey for the number-one position if and when the dominant titles lose their lead.
- ▶ This shift could present problems for game publishers, who often plan their next release more than a year in advance, and need to project which game genres users will continue to play. The next few years could be especially challenging for publishers without the agility to respond to these changes in consumer behavior.
- ▶ And, as we've seen with Rovio's IPO, investor interest in mobile games may be waning. While it remains an important app category in terms of user numbers and engagement, the changes in consumer behavior around games align with the decline we've seen in the multibillion-dollar deals and mergers of the past. Likewise, is consumer interest in games decreasing or is attention just shifting elsewhere for now?

TREND 2:

How Consumers Spend Their Time Online

The amount of time that consumers spend online has stabilized, but time spent per consumer is shrinking in key app categories.

While the amount of time that users spend online has remained relatively stable over the past 12 months, our data shows that consumer attention or engagement is shifting, based on the amount of time that individual consumers spend in different content categories. While social media, email, and mobile gaming content have historically dominated the share of time that consumers access online, our data shows early signs of a shift to other types of content.

When we looked at the amount of time people spend online, we noticed three key trends:



Communications and social media are seeing time spent per user decline for the first time: Sites and apps like Facebook,

Snapchat, and Gmail attract the greatest percentage of consumer online time. As of July 2017, we spent more than 41% of our online time in this app category, which equates to an average of more than 25 hours per month per user of communications and social media apps. But, over the past year, the amount of time spent per user in these apps and sites showed a slight (less than 1%) decline, despite the fact that the overall number of users rose. While this decrease is relatively small, it may indicate that social media is starting to lose its grip on our online time. Are consumers choosing to spend their time in other places?

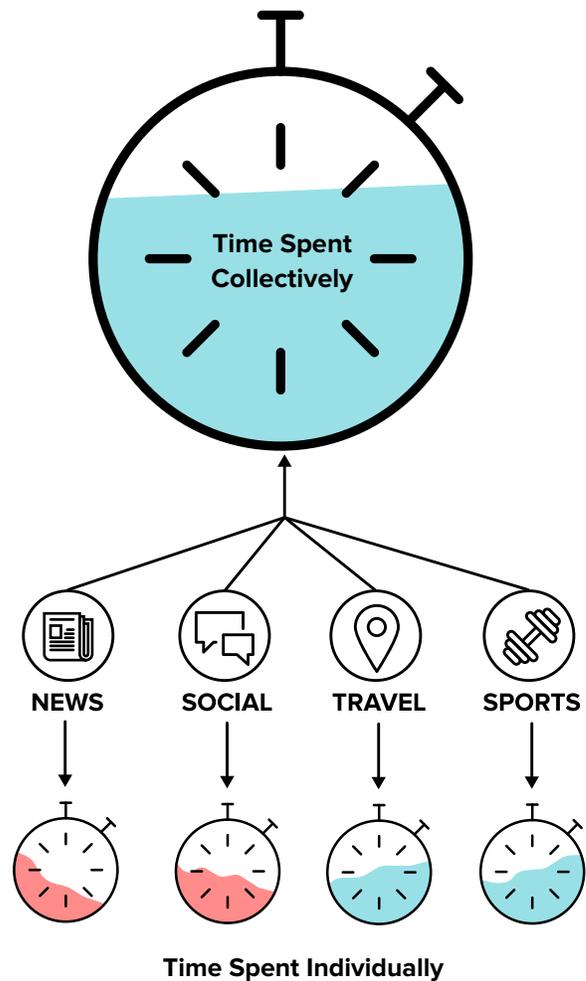


Mobile games are a distant second: Mobile games are the second-highest ranking category in terms of time spent per user, but that number has stagnated at about 12% of the amount of time consumers spend online, 20.7 hours per user per month.



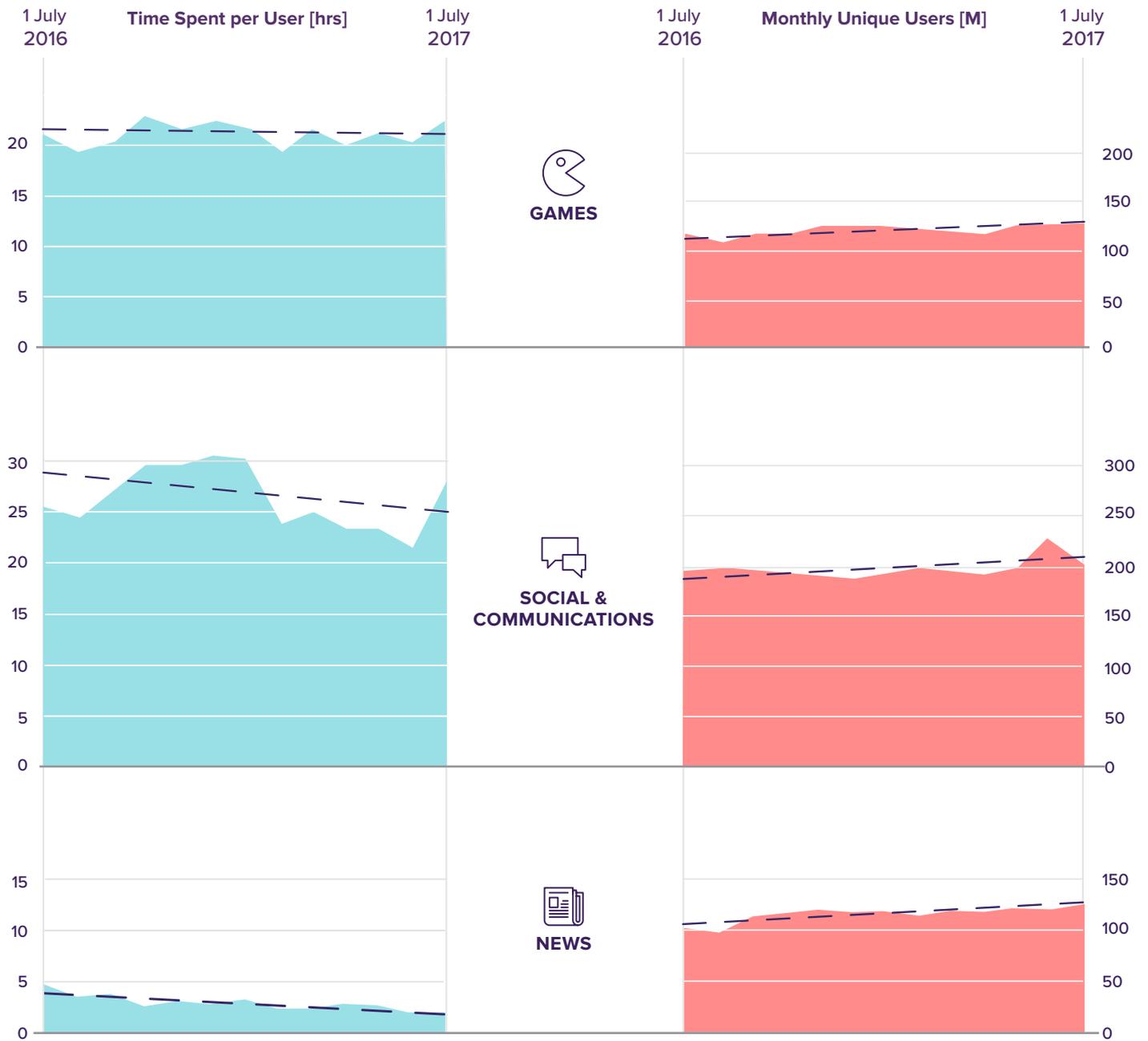
The slow rise of entertainment apps: This app category (which includes YouTube, Spotify, and Netflix) accounts for about 11% of the amount of time people spend online and enjoyed an increase in user numbers between the months of

CHART 7: Consumer time spent online has stabilized, but time spent in key categories is shifting



November 2016 and February 2017 — prime binge-watching season in many parts of the country. The app category also saw a rise in the amount of time spent per user, to 11.5 hours per month, indicating that these apps may be doing a better job of owning the consumer viewing experience on their own terms (and through proprietary apps, rather than social media and other external distribution platforms).

CHART 8: User Numbers and Time Spent per User: Content Breakdown



Overall online behaviors are shifting across different types of content



Lifestyle apps and websites (such as the Starbucks app, allrecipes.com, and ancestry.com) and travel properties saw an overall rise in user numbers, as well as in time spent per user, which rose to an average of 2.3 hours per month.



Sports apps and websites actually saw a drop in user numbers, but an increase in time spent per person, to 4.3 hours per month.



Shopping and e-commerce properties saw a gradual increase in user numbers, roughly corresponding with a slow rise in time spent per user, to 2.3 hours per month.



NEWS AND WEATHER: In light of the various “fake news” controversies that arose in the past year, it’s sobering but not surprising that news and weather apps and websites saw a large decline in time spent per user, despite a continuous rise in overall user numbers: users spent an average of just 3.3 hours per month on news and weather properties.

For social media and email apps, which dominate the amount of time consumers spend online, the fact that consumer time spent online is showing signs of decline could signal a major change in consumer online behavior.

Social media platforms like Snapchat, Twitter, and Facebook are also repositioning themselves as content creators and entertainment providers, having each launched forays into producing original or streaming content for the express purpose of capturing greater chunks of user attention. Facebook Watch, a new

platform for original video content, launched in August 2017, while Snapchat has inked deals with Time Warner, NBC, and more to produce original scripted content as well as distribute existing network television shows. And Twitter has positioned itself as a hub for events, livestreaming major sports matches as well as the total solar eclipse visible across the U.S. earlier this year. But will these efforts pay off?

For brands and content publishers working in areas outside this short list, this presents a double-edged sword: while many brands and publishers have relied on an uneasy co-existence with social media platforms as a distribution platform, dwindling consumer attention signals a need to generate new ways to break into consumer habits and everyday digital behaviors. And this may prove even harder than ever, now that consumers are spending more of their time across an increasingly fragmented landscape of content, sites, and services.

Takeaways

- ▶ While total user numbers for social media, communications, and mobile gaming properties (apps and websites) increased over the past year, the average time spent per user with this content either stagnated or **decreased** over the same time period.
- ▶ Traditional online entertainment providers, such as Netflix and YouTube, have been making large investments into their original content libraries. And with new players, such as Disney, entering the online video streaming ecosystem, we may be seeing battle lines being drawn across content creators, distributors, and formats.

- ▶ Content categories like shopping, sports, and entertainment are absent from the list of app categories where consumers spend a majority of their time, but all experienced increases in user engagement, as measured by the amount of time users spent with these properties.

In 2018, a key trend to watch is the interplay between total time spent online by the average consumer and where they spend the most time. These engagement metrics are something that advertisers and publishers need to watch when considering where and when to reach their targets.

TREND 3:

Keeping Pace with Digital Consumer Behavior

To reach your target consumer, you must understand “multitasking” and “consumer mobile journeys.”

How consumers engage with mobile devices — and the sites, services, and apps they use — is always changing. Multitasking and the consumer mobile journey are two ways we can look at how to engage with consumers across all their devices and throughout their digital day.

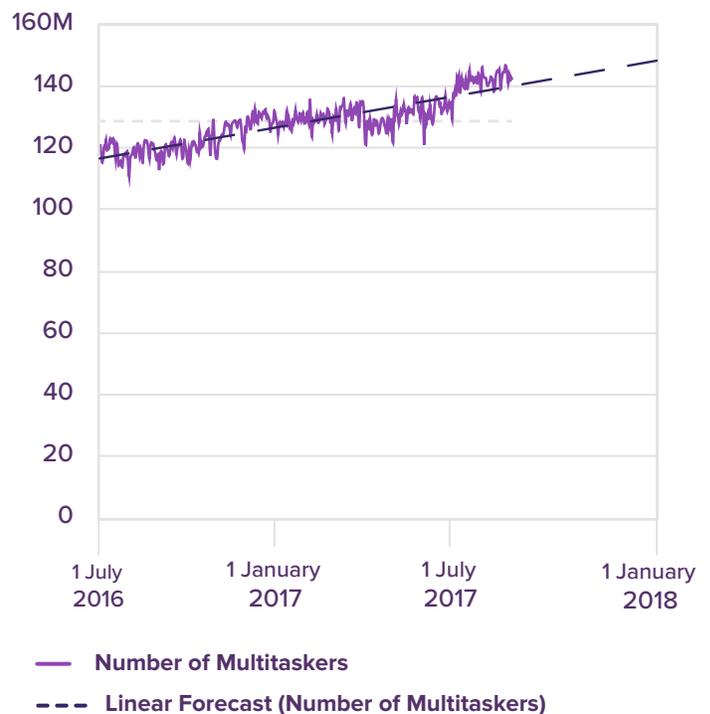
Multitasking Continues to Rise

Multitasking, a consumer behavior trend we originally defined in March 2017, continues to grow: between July 2016 and July 2017, the daily number of consumers who engage with more than four apps per mobile device session has increased by 10 percent, from 121 million to 143 million adults in the U.S., and this behavior will only continue to increase (see chart at right). According to Verto Analytics data, by January 2018, more than 149 million adult consumers in the U.S. are forecasted to engage in multitasking sessions, equalling 69.4% of the online U.S. adult population. As our earlier research revealed, understanding consumer multitasking can help brands, publishers, and agencies uncover the interaction and cooperative dynamics between apps — and the evolution of consumer in-app usage — to ultimately drive growth in user numbers, user engagement, and monetization or partnership potential.

Consumer Mobile Journeys: Which Apps Do Consumers Use Most Often?

And not only is multitasking on the rise, consumer mobile journeys — which apps consumers launch, and in which order — has also become a significant metric for advertisers and app publishers. As seen in Charts 10 and 11, Verto Analytics analyzed app user journeys based on mobile operating system (iOS versus Android) as well as by app category (i.e., what type of apps were used and in what order) to identify trends in consumer behavior across these parameters. Understanding these mobile journeys — and how they

CHART 9: The Rise of Multitasking Behavior: Actual and Projected



differ across demographics, operating systems, and other segments — can ultimately help brands, publishers, and agencies understand individual customers and offer new insights into how to craft improved engagement and user experiences with them in the future.

Consumer Mobile Journeys by App Category

As evidenced by the data in communication and social media apps dominate consumer mobile journeys: regardless of mobile operating system, nearly half (46%) of all smartphone device sessions begin with a communications or social media app immediately after

CHART 10: Consumer Mobile Journey by App Category

1st App		2nd App		3rd App	
Category	% Share of All 1st apps	Category	% Share of All 2nd apps	Category	% Share of All 3rd apps
1 Communication & Social	46	Communication & Social	47	Communication & Social	45
2 Web Browsers	14	Web Browsers	16	Web Browsers	17
3 Utilities & Tools	12	Utilities & Tools	9	Utilities & Tools	9

CHART 11: Consumer Mobile Journey by App and Operating System

iOS

1st App		2nd App		3rd App	
Category	% Share of All 1st apps	Category	% Share of All 2nd apps	Category	% Share of All 3rd apps
1 Safari	30	Safari	29	Safari	30
2 Facebook	13	Facebook	12	Facebook	12
3 Snapchat	8	Snapchat	9	Snapchat	9

Android

1st App		2nd App		3rd App	
Category	% Share of All 1st apps	Category	% Share of All 2nd apps	Category	% Share of All 3rd apps
1 Facebook	9	Chrome	11	Chrome	12
2 Chrome	8	Facebook	9	Facebook	9
3 Google	3	Google	4	Google	4

the device is unlocked. And just over 46% of all mobile device sessions include a communications or social media app as one of the first three apps launched within a given session.

Next, practical apps and tools are a central part of consumer mobile behavior: more than 16% of device

sessions launch web browsers as their second task within a device session, and nearly 10% launch utilities and tools apps (such as the Google Play and Apple App Stores, Contacts, and a smartphone’s native clock app) as the third operation within a single device session.

Entertainment apps (such as Netflix, YouTube, and Spotify) and mobile games (like Words With Friends and Candy Crush) play an important yet non-central role in consumer mobile journeys: only about 5.5% of device sessions begin with an entertainment app as the first app in their mobile device session. Likewise, only 3.7% of device sessions begin with a mobile gaming app.

Consumer Journeys: iOS vs. Android

The mobile consumer journey — and especially which apps are used — is influenced by which mobile operating system a given consumer is using. While part of this is based on which apps are pre-installed on a given device, which varies depending on the original manufacturer (e.g., iOS devices arrive with Safari as the pre-installed web browser, whereas most Android phones are shipped with Chrome), Verto Analytics data reveals distinct preferences in mobile app journeys even with apps

available on both mobile operating systems:

- ▶ Web browsers are equally popular across mobile operating systems, accounting for 14.4% of the first apps or services opened during a mobile device session. However, Android supports multiple default browsers depending on the device manufacturer; therefore, Chrome has a smaller share of the browser market than Safari, which is universally installed as the default browser on iOS devices.
- ▶ Social media apps play a dominant role in the consumer mobile journey on iOS devices: Snapchat, Instagram, and Twitter seem more likely to be first apps opened during iOS device sessions than on Android device sessions. Meanwhile, mobile games and communications apps, such as Words With Friends and Gmail, have similar penetration rates on both platforms.

Takeaways

While consumer behavior is fluid and ever-changing, Verto Analytics' data reveals several trends around mobile journeys that will impact how publishers, brands, and advertisers engage with customers and audiences in the future.

- ▶ First, the central role social media and communications apps occupy — on consumers' home screens, in their daily mobile journeys, and in the sheer percentage of time they spend online — points to the continued rise of these apps as influencers in content consumption and discovery. Additionally, it's clear that social media and communications apps play a key role in how consumers navigate across other sites, apps, and services, and back again. All told, the relationship between social media and communications apps and others — such as content providers and e-commerce portals — is changing. As the interplay across apps and

sites is increasing, we're seeing the emergence of apps and app categories that drive consumers in their decision-making process. Understanding which apps and app categories drive specific types of consumer behavior will help brands and agencies especially as they design touchpoints, plan media spend, and make other key revenue decisions.

- ▶ Second, as multitasking continues to rise, the role of these social media and communications apps — such as Snapchat, Twitter, and Gmail, as identified in our analysis of consumer journeys — may arise as new hub apps, the center of an interconnected ecosystem of content that consumers return to on a regular basis as part of their digital day. For smaller apps or newcomers, breaking into this digital cycle of consumer habits will present an especially great challenge.

Conclusion

Consumer mobile behavior tends to shift rapidly, and sometimes in some very subtle ways. It is imperative for brands, advertisers, and publishers to adopt increasingly targeted and sophisticated ways of tracking the consumer's digital journey, especially considering the constant proliferation of new products, content, and user interfaces all designed to capture — and hold — our attention.

Will these new user interfaces, and the spectrum of new devices they could power (everything from VR kits to wearables), continue to grow in the future? And an even a bigger question — one that could significantly affect the revenues of today's dominant device manufacturers and operating systems — is whether new devices are adding into or substituting for the existing use of the internet. 2018 has all the hallmarks of ten more years of progress with new interfaces and digital services designed to keep consumers engaged and entertained.

Beyond the mobile-centric revolution and emergence of new forms of entertainment with mobile games, the market is obsessed with the

evolution of user interfaces. While the iPhone introduced the touchscreen as the standard user interface to the masses, we are now seeing Siri and dedicated devices like the Amazon Echo coming to reach market popularity. And in the coming years, we anticipate these changes in content, interfaces, and consumer behavior to change at an increasingly rapid rate. Developing a greater understanding of consumer journeys will, in turn, equip brands (and the agencies that serve them) with the insights they need to build the products and experiences that meet consumers' precise needs and give them an advantage in cultivating long-term loyalty and engagement. After all, knowing how to meet consumers' precise needs based on their everyday behavior will help brands and publishers know how to build and market products that delight their customers.

As a result, we hope the data and analysis in this report serve as a useful yardstick for any company attempting to navigate and succeed within this volatile landscape, and provide strategic guidance for 2018 and beyond.

About Verto

Verto Analytics is a media measurement platform that offers a holistic view of the consumer — their behavior along with demographics, lifestyles, attitudes, and interests. Verto owns and operates a single-source, passively metered panel that gives us the power to measure behavioral changes over time across all media — second by second. Through a platform that democratizes behavioral research, brands, publishers, and researchers can benchmark against competitors and the market, fill in the gaps in the consumer journey, and identify ways to increase engagement and loyalty.

The data and analysis used in this report are products of Verto Watch, which offers syndicated research on the cross-device consumer accessible 24/7 from an online reporting portal. To understand the motivations that drive consumer behavior, we use Smart Poll to combine survey research with behavioral metrics by using passive cross-device metering of our opt-in panel of consumers. Audience Profiles, our newest product, combines behavioral, demographic, device usage, and competitive insights and allows us to visualize a day in the life of that user or audience segment.

Verto Methodology

Verto Analytics' single-source, passive measurement methodology is based on behavioral data gathered from a panel of consumers who own and use multiple devices. We measure from the point of consumer interaction across all platforms, media, content, and devices. Our panelists, who are compensated for their participation depending on their demographics, opt in to install a measurement app on their digital devices.



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