

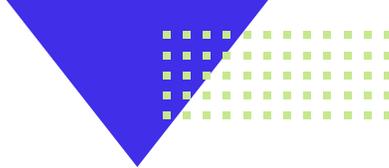
JUNE 2019

# State of React Native

Global and U.S. trends for Android and  
iOS apps built in React Native



bugsnag



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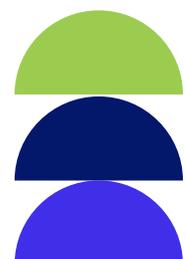
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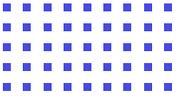
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# What is React Native?

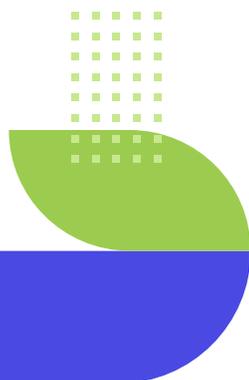
When React Native debuted in 2015, it was a welcomed addition to the mobile application world. An open-source framework, React Native was the first to address long-standing challenges that development teams faced when building native apps for Android and iOS platforms.

Historically, organizations faced a choice: either staff two separate mobile development teams to build native apps in parallel, or prioritize one platform over the other and build sequentially. Unfortunately, these strategies both resulted in Android and iOS apps that rarely matched, which meant functionality and user experiences differed across platforms.

Thankfully, React Native brought a wave of change to mobile development by allowing native mobile applications to be built at the exact same time. React Native enables developers to write code just once using JavaScript and React and then build native apps for multiple platforms—all without learning native code.

Best of all, the resulting apps don't rely on HTML rendered inside a webview; the apps are truly native.<sup>01</sup> In short, React Native is a two-for-one mobile application development tool that saves an estimated 20-40% development time<sup>02</sup> and effort and 30-40% cost savings.<sup>03</sup>

To understand the impact React Native is having on mobile application development, we compiled MightySignal data from more than 77,000 Android and over 6,000 iOS apps built in React Native.<sup>04</sup> The following analysis represents a peek into how React Native is being used and where it has gained traction.



# How React Native is used globally

While React Native only became an open-source option for mobile development about four years ago, it's garnered attention quickly. The framework is most popular with U.S. developers, who account for approximately seven out of every ten of its global users.

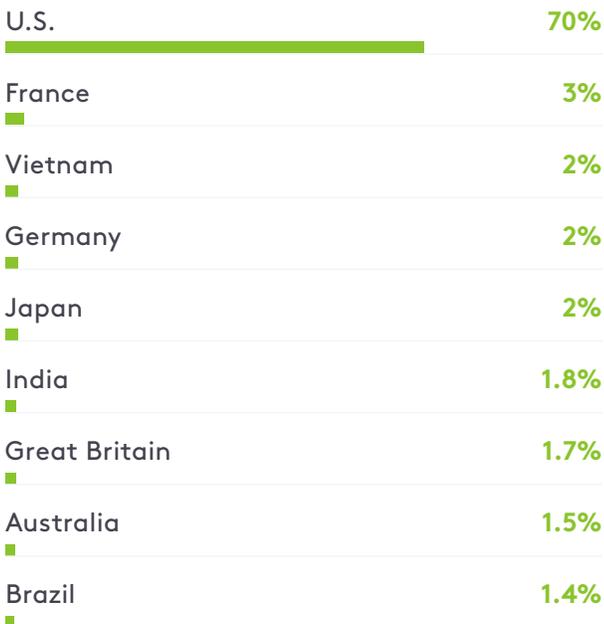
All categories of applications are being built, although business apps are most popular, followed by lifestyle, productivity, finance, and entertainment.

React Native apps are almost always free for consumers on Android, while iOS apps are usually free and are more likely to provide in-app purchases.

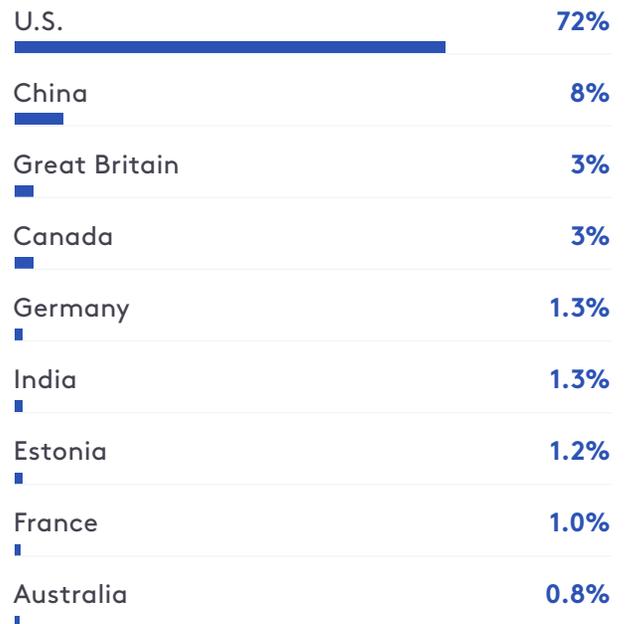
## React Native is most popular with U.S. developers

U.S. developers are the strongest users of React Native by 70% or more on both platforms.

### ANDROID DEVELOPERS



### iOS DEVELOPERS



## iOS apps are being built in a wide variety of categories

Business apps are the most popular, followed by lifestyle apps.



Lifestyle  
8.7%



Productivity  
6.8%



Business  
14.2%



Finance  
6.4%



Entertainment  
6.1%



Education  
5.7%



Social Networking  
5.6%



Health & Fitness  
5.5%



Travel  
5.3%

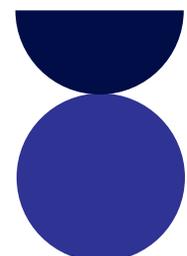


Shopping  
5.3%

## Apps are usually free, and not many offer in-app purchases

However, iOS is 7% more likely to offer in-app purchases in free apps.

OFFERS	ANDROID	iOS
Free, no in-app purchases	95%	84%
Free, in-app purchases	5%	12%
\$0.99	0.03%	0.20%



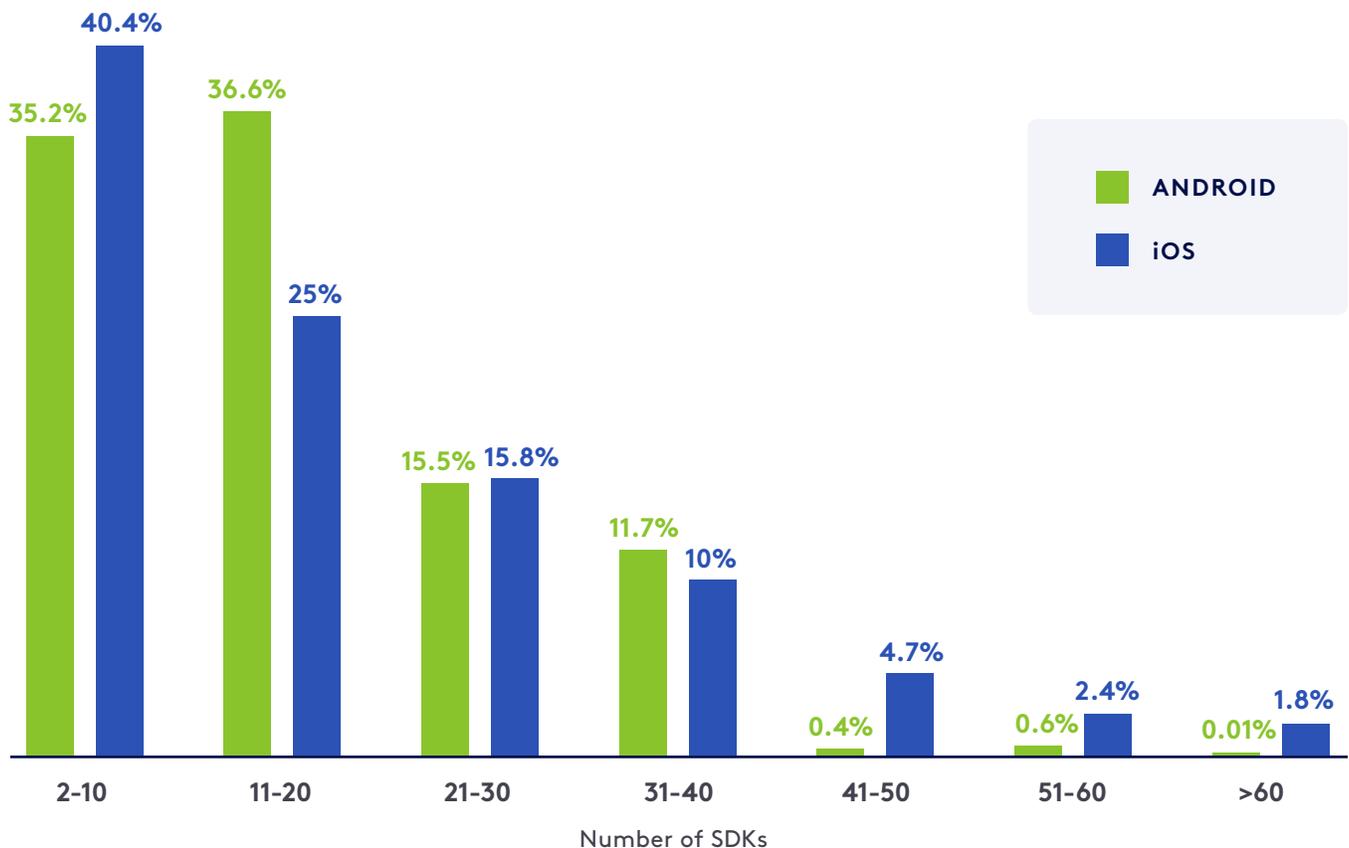
# What development trends look like today

Developers rely on a varying number of SDKs (software development kits) when they build apps, and React Native is no different. For both Android and iOS development, the majority of apps use between two and 20 SDKs.

With its 2015 general release date, it's not surprising that 2016 experienced a sharp spike in new iOS React Native apps built that year. The subsequent years have seen the percentage of new apps built remain high but level off a bit. However, existing apps are being improved upon on a regular basis, with more than a third of developers updating their apps on a weekly basis. In fact, 78 percent of Android apps were updated in the last nine months, and the first three months of 2019 is the highest rate of updates yet at 43 percent

## Developers use a wide range of SDKs to build apps

72% of Android and 65% of iOS apps use between 2 to 20 SDKs.



## More than a third of publishers update on a weekly basis

50% of publishers update apps on a low frequency basis, i.e. less than once every four months.

UPDATE FREQUENCY	ANDROID	iOS
High	33.4%	37.4%
Medium	18.4%	10.8%
Low	48.2%	51.8%

## iOS release dates demonstrate sharp spike in new apps built in 2016

The last two years have seen continued new development but at a slightly slower pace.

RELEASE DATE	
2015	9.83%
2016	31.4%
2017	21.9%
2018	16.0%

## Android developers are focused on improving existing apps

78% of Android apps were updated in the last nine months.

LAST UPDATE	
2015	0.16%
2016	0.72%
2017	9.3%
Jan-June 2018	12.4%
July-Dec 2018	34.5%
Jan-Mar 2019	42.8%

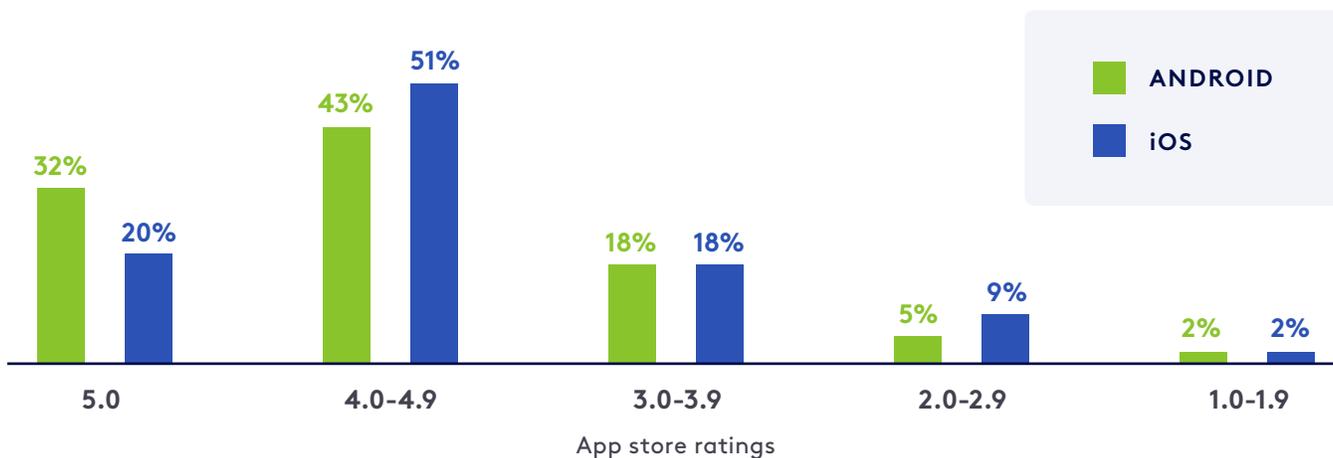
# React Native apps rate strongly and are popular with consumers

Remarkably, average consumer ratings are high on both platforms with over 70 percent of both Android and iOS apps rated 4.0 or higher.

While Android has a higher number of top rated apps (those that score 5.0), iOS prevails with download numbers. While Android only has four percent of their apps downloaded more than 100,000 times, a full 14 percent of iOS apps have strong (100,000 to 500,000) or elite (one million or more) download status. On the whole, though, the majority of Android and iOS apps experience less than five thousand downloads, which is on par with published Android download averages.<sup>05</sup>

## Average ratings are high for both platforms

Android edges out iOS with 75% apps rated 4.0 or higher.



## iOS apps outperform Android apps in downloads

iOS apps outperform Android apps with 14% downloaded 100K times or more. However, most apps have less than 5K downloads.

APP DOWNLOADS	ANDROID	iOS
Elite (>1 million)	1%	6%
Strong (100K-500K)	3%	8%
Moderate (10K-50K)	10%	12%
Weak (<5K)	85%	75%

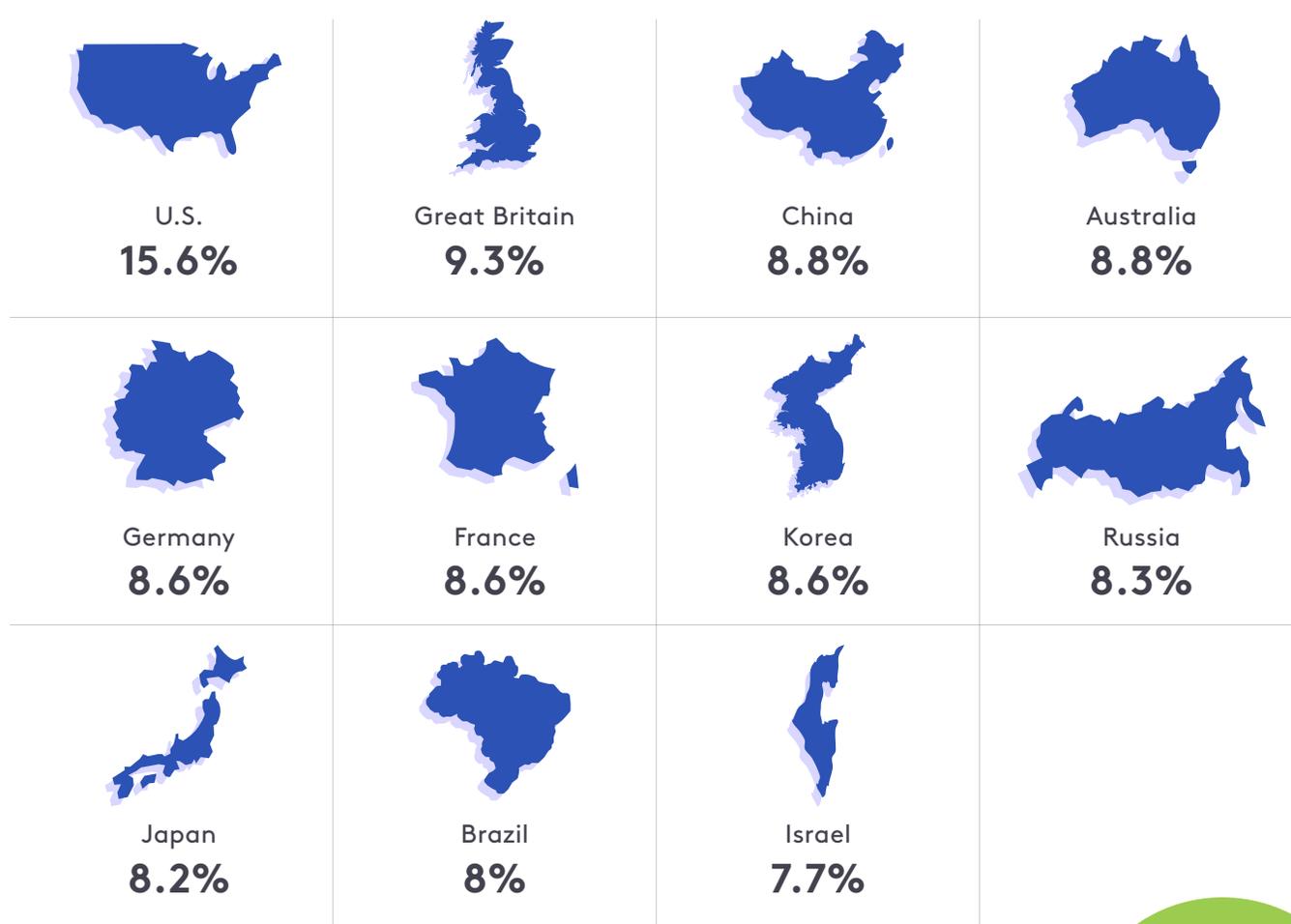
# Americans are the largest consumers of React Native-built apps

Given where most React Native development takes place, it's not surprising that the U.S. has the largest consumer base for iOS apps built in React Native.

American consumers are also much more likely to use iOS apps that are built in their own country, as a full 72 percent use U.S.-built apps. In addition, apps built in the U.S. have much stronger download numbers with 28 percent of apps being downloaded more than 100,000 times—twice the global numbers.

## The U.S. has the strongest consumer base for iOS apps built in React Native

Great Britain is the next strongest consumer base, followed by China and Australia.



## Americans are much more likely to use iOS apps built in the U.S.

China is a distant second with a 64% lower U.S. consumer base.



U.S.  
**72%**



China  
**8%**



Great Britain  
**3%**



Canada  
**3%**

## U.S.-built iOS apps also have more downloads

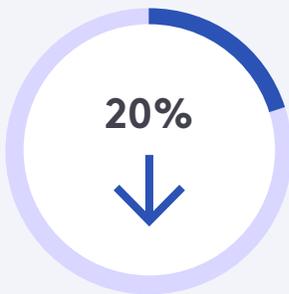
28% of U.S.-built apps are downloaded more than 100K times by American consumers.



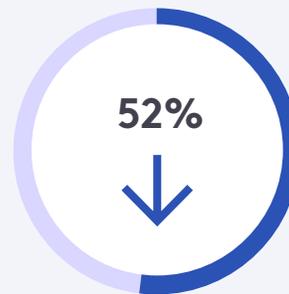
**ELITE APP**  
—  
>1 million  
apps downloaded



**STRONG APP**  
—  
100K-500K  
apps downloaded



**MODERATE APP**  
—  
10K-50K  
apps downloaded



**WEAK APP**  
—  
<5K  
apps downloaded

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# The future of React Native looks strong

Today, thousands of React Native apps have been built for organizations of all sizes. From popular consumer apps like Facebook, Instagram, Uber, Pinterest, and Skype to shopping apps like Walmart, news apps like Bloomberg, and productivity apps like Salesforce, React Native has found its way into the mainstream application world.<sup>06</sup>



Game provider on social media platforms that uses Bugsnag for apps like Words with Friends, which has 13 million monthly active users

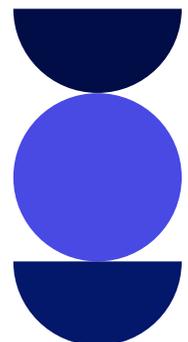


eCommerce platform for online stores that uses Bugsnag on their full-stack React Native apps, including customizable merchant apps



Trucking & transportation company that uses Bugsnag for two flagship products, Carrier 360 and J.B. Hunt Drive, which manage entire workflows

No one can say for certain what will happen with React Native in the coming years, but there's little question that the open-source framework is hot. While U.S. adoption has been the strongest to date, all signs point to future global use as word continues to spread about React Native and the ease it brings to Android and iOS native app development.

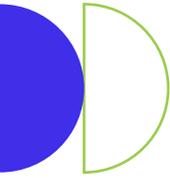




# Bugsnag

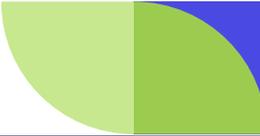
Bugsnag is the “command center” for software stability. We empower software teams to make data-driven decisions on when to focus on building new features and when to fix bugs. By automatically detecting software bugs in mobile, web, and backend applications, Bugsnag groups issues by root-cause, sorts by business impact, and displays alongside rich diagnostic data, which enables teams to reproduce and fix each bug. A release health dashboard and software stability score help our customers detect broken releases immediately, know when to promote builds from beta to production, and set company-wide stability targets.

We process over a billion crash reports every day from applications worldwide and over 5,000 software teams worldwide use Bugsnag as their daily dashboard, including Airbnb, Slack, Pinterest, Lyft, Yelp, and Pandora.



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**Balance agility with stability.**