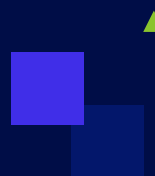


2019

Unity Gaming Platform Trends

Almost fifteen years after its launch,
Unity is still at the top of its game



bugsnag



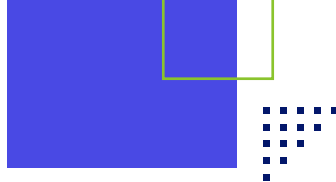


Table of contents

03 What is Unity?

- What does the gaming market look like today?
- Unity isn't just for video games anymore

04 Where Unity and the 3D future meet

- Labor skills projections demonstrate demand growth for Unity skills
- Unity is most popular with U.S. developers

05 The types of mobile apps built with Unity today

- iOS apps are built largely for the Gaming category
- Apps are usually free, and some offer in-app purchases

06 An inside peek at Unity development trends

- Most developers use 20 or less SDKs to build apps
- iOS release dates demonstrate a sharp spike in new apps built in 2016
- Less than 10% of publishers update on a weekly basis
- Android developers are improving existing apps

08 Popularity and ratings with worldwide consumers

- Average ratings are relatively high for both platforms
- Most apps have less than 5k downloads

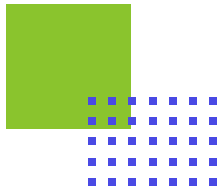
09 Global demand for Unity-built apps

- Led by the U.S., many countries have strong iOS consumer bases
- Americans are much more likely to use iOS apps built in the U.S.
- U.S.-built iOS apps also have more downloads than the global average

11 Powering future apps and reality

12 Bugsnag





The Unity platform

Released in 2005, Unity's initial aim was to simplify game development and make it easier for a broader group of developers to build games. Almost fifteen years later, Unity remains at the forefront of video game development (now in 2D, 3D, VR, and AR) through its spectrum of real-time tools for programmers and artists, as well as its exhaustive documentation from an enormous community of users.

Today, the engine boasts over 28 million installs of Unity games on over 3 billion unique devices worldwide.⁰¹ Impressively, Unity is credited with the creation of approximately half of all games in the burgeoning mobile market.

What does the gaming market look like today?

Gaming is one of the largest players in the media and entertainment industry, having secured its place alongside film, television, music, and book publishing. Remarkably, video games are the fastest-growing segment in the entire industry and are forecast to grow at a compound annual growth rate of 14.95% from 2019 to 2030.⁰²

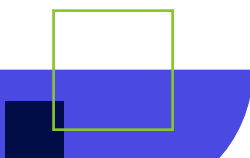
Within video games, mobile gaming is the largest segment and represents 45% of the global games market, the majority of which comes from smartphone games.⁰³ In fact, with only one exception, every gaming segment is experiencing impressive growth worldwide.

Unity isn't just for video games anymore

While many people associate Unity primarily with video game creation, this cross-platform software engine is proving to be an invaluable resource for developers, programmers, specialists, and artists in multiple fields.

Industries such as film, health care, transportation, manufacturing, construction, and education have discovered the benefits of using Unity's infrastructure and software, thanks in part to its compatibility with more than 25 platforms across mobile, console, TV, virtual reality (VR), augmented reality (AR), and the web. The capability to build once and deploy on multiple platforms makes Unity a popular choice for the fast creation of immersive and interactive user experiences.

Unity is used for creating approximately 60% of all AR and VR content and is the engine behind roughly 90% of emerging extended reality (XR) technologies. Companies like Alphabet's DeepMind have partnered with Unity to help accelerate advancements in areas like artificial intelligence (AI) and machine learning (ML).⁰⁴





Where Unity and the 3D future meet

Outside of the gaming world, industries such as health care, manufacturing, and film are recognizing the huge impact that 3D can have on accelerating work within their fields. The challenge is that organizations must hire skilled employees who can use 3D technologies to use these virtual tools and build extended reality worlds.

Real-time 3D and 3D graphics skills are critical if companies want to create immersive experiences and benefit from new technologies. Demand for skilled employees will see a sharp increase in the coming years, including the need for those skilled in Unity.⁰⁵

Labor skills projections demonstrate demand growth for Unity skills

While demand for video game developers will grow twice as fast as the overall market, developers will experience almost 3.6 times more demand if they are skilled in Unity.

PROJECTED DEMAND GROWTH OVER THE NEXT TEN YEARS

Overall market	10%
Video game developers	>20%
Developers skilled at Unity	72%

Unity is most popular with U.S. developers

Speaking of labor markets, Unity has the strongest number of users in the States. **Three out of every four Android and more than six in ten iOS app developers are based in the U.S.**, which bodes well for the workforce and economy as these skills continue to increase in demand.

American-based developers are the strongest users of Unity on both Android and iOS, with Great Britain and China in very distant second positions, respectively.

ANDROID DEVELOPERS

U.S.	75%
Great Britain	3%
Japan	2%
South Korea	2%
India	2%

iOS DEVELOPERS

U.S.	64%
China	4%
Great Britain	4%
Israel	2%
India	2%

The types of mobile apps built with Unity today

While gaming accounted for almost all Unity development ten years ago, the education and entertainment categories together represent 15% of all Unity apps built today, demonstrating a shift to new app types.

The vast majority of Unity-built Android apps are free for consumers, and about a third of all free Android and iOS apps offer in-app purchases. However, the trend is moving towards advertising over in-app purchases, as demonstrated by the 10.2B monthly ads Unity serves.⁰⁶

iOS apps are built largely for the Gaming category

Education and Entertainment are the other two categories that demonstrate a significant number of apps.



Games
79%



Education
8%



Entertainment
7%



Books
0.9%



Lifestyle
0.8%

Apps are usually free, and some offer in-app purchases

Free Android apps are 12% more likely to offer in-app purchases than their iOS counterparts.

OFFERS	ANDROID	iOS
Free, no in-app purchases	76%	84%
Free, in-app purchases	23%	11%
\$0.99	0.07%	0.7%

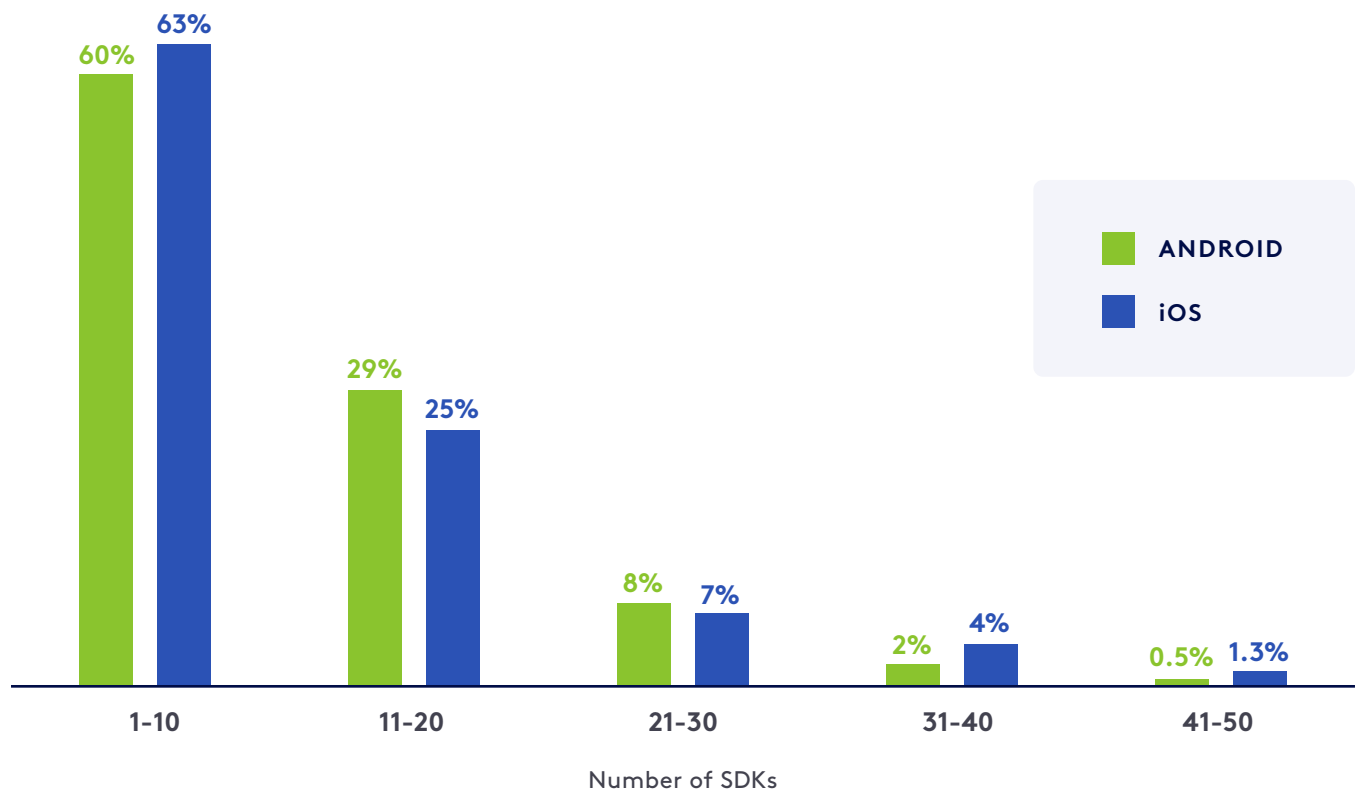
An inside peek at Unity development trends

While developers use a varying number of SDKs (software development kits) for building apps, the vast majority of Unity builders stick to 20 or less SDKs. This trend holds true across Android and iOS development.

2016 was a popular year for building new iOS Unity apps and represents over half the apps built in the last ten years. New development has continued strong in the last couple years but at a more measured pace. Both Android and iOS apps tend to be updated on a low frequency basis (less than once every four months), and over 60% of Android apps have received updates since 2018.

Most developers use 20 or less SDKs to build apps

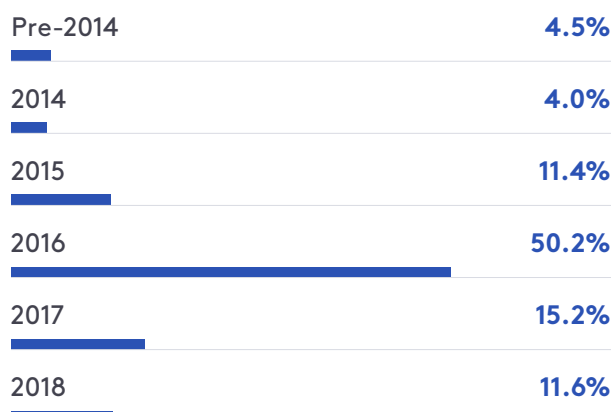
89% of Android and 88% of iOS apps use between one to 20 SDKs, with the majority using 10 or less.



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

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

RELEASE DATE



Less than 10% of publishers update on a weekly basis

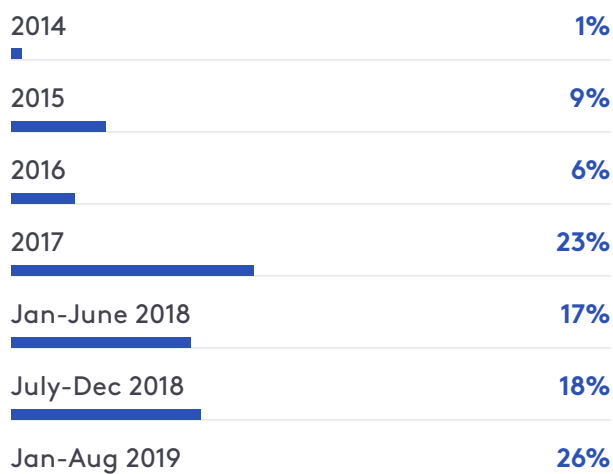
More than 80% of iOS and Android publishers update apps on a low frequency basis, i.e. less than once every four months.

UPDATE FREQUENCY	ANDROID	iOS
High	9%	8%
Medium	7%	4%
Low	84%	88%

Android developers are improving existing apps

One-quarter of apps have been updated in 2019, and 61% have been updated since 2018.

LAST UPDATE

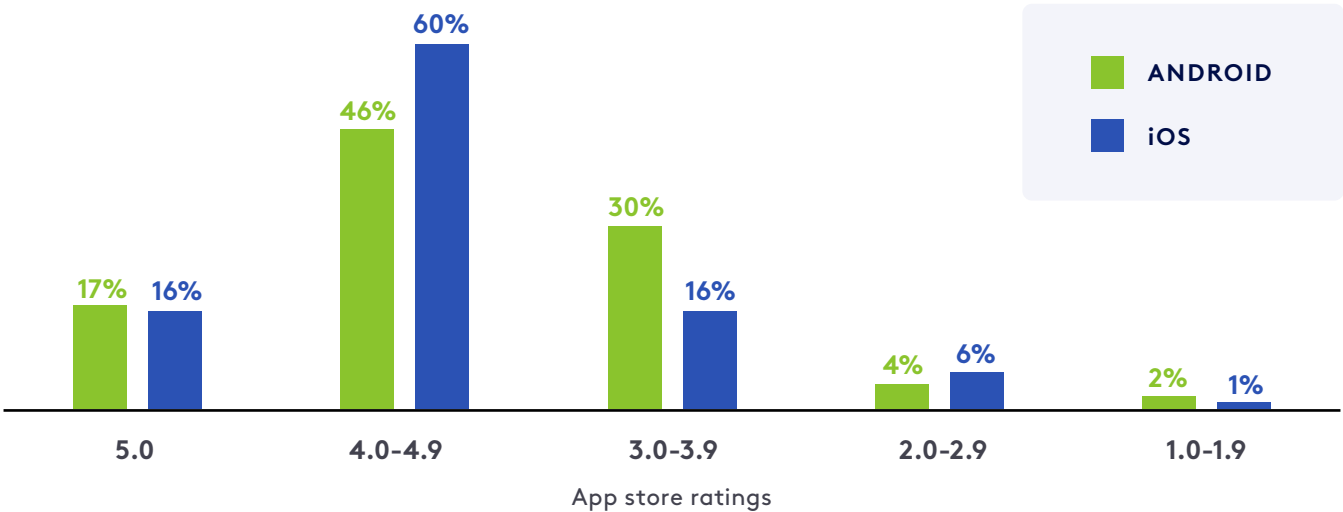


Popularity and ratings with worldwide consumers

Consumers are big fans of Unity-built apps. Remarkably, Android is slightly favored when it comes to receiving a perfect 5.0 rating. However, iOS outperforms Android in 4.0 and higher ratings, while Android is twice as likely as iOS to get a 3.0-3.9 rating.

Average ratings are relatively high for both platforms

iOS outperforms Android with 76% rated 4.0 or higher.



Most apps have less than 5k downloads

Unity-built Android apps outperform the published Android download averages (for 5,000 times or less⁰⁷) with 70% compared to 82%. In contrast, 30% of Unity apps are downloaded 10,000 or more times, which is a 12% step up.

Android apps edge out iOS apps with 13% downloaded 100k times or more.

APP DOWNLOADS	UNITY-BASED ANDROID	ANDROID
Elite (>1 million)		
Strong (100K-500K)	30%	18%
Moderate (10K-50K)		
Weak (<5K)	70%	82%

APP DOWNLOADS	ANDROID	iOS
Elite (>1 million)	3%	4%
Strong (100K-500K)	10%	6%
Moderate (10K-50K)	17%	17%
Weak (<5K)	70%	73%



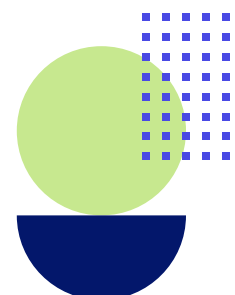
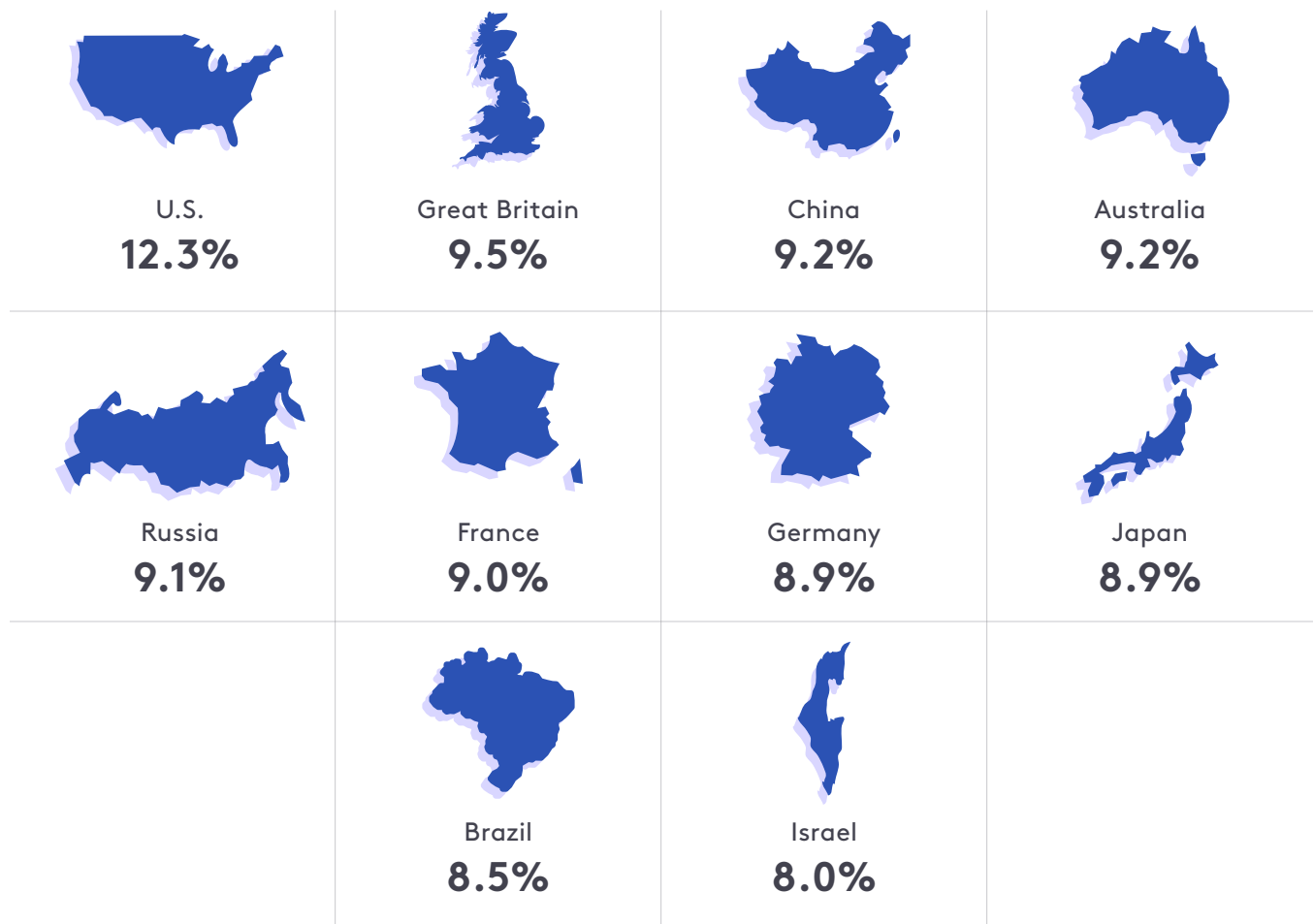
Global demand for Unity-built apps

Unity apps are popular with consumers on a global level. While the U.S. has a strong consumer base for iOS apps built, quite a few countries are nipping at the Americans' heels, including Great Britain, China, and Australia.

Remarkably, U.S. consumers overwhelmingly prefer to consume iOS apps that are built in the States, and these apps are also twice as likely to have over 100,000 downloads by American consumers.

Led by the U.S., many countries have strong iOS consumer bases

Great Britain is the second largest consumer base, followed by China, Australia, and Russia.



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

Great Britain and China are tied at a distant second with a 79% lower likelihood of being downloaded by a U.S. consumer.



U.S.
85%



Great Britain
6%



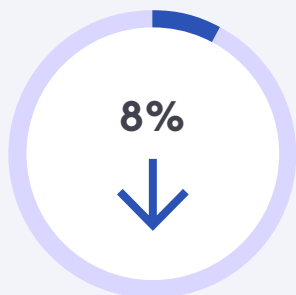
China
6%



India
3%

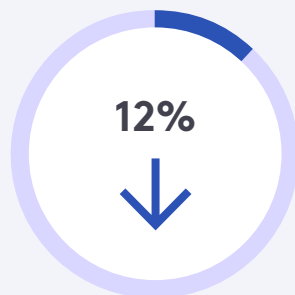
U.S.-built iOS apps have more downloads than the global average

20% of U.S.-built apps are downloaded more than 100k times by American consumers.



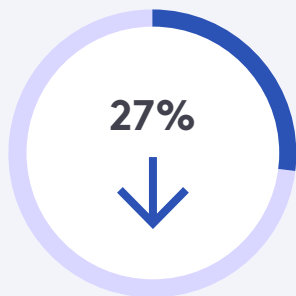
ELITE APP

>1 million
apps downloaded



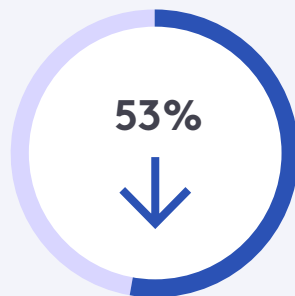
STRONG APP

100K-500K
apps downloaded



MODERATE APP

10K-50K
apps downloaded



WEAK APP

<5K
apps downloaded

Powering future apps and reality

Pokémon GO and Angry Birds 2 serve as famous examples of Unity-built apps, but it's clear that the future of Unity goes beyond mobile apps. Even as mobile gaming continues its upward trajectory on a global scale, Unity is being discovered as a great tool in other industries. One look at the latest Tesla news regarding in-car gaming with Unity demonstrates that gaming will soon be incorporated into all facets of our lives.⁰⁸

It will be exciting to see where Unity leads us in the years ahead, especially in fields such as transportation and medicine, but one thing is for certain: plenty of global consumers will enjoy many hours of immersive and interactive games in the meantime.



With over 80 million monthly active users, this game provider uses Bugsnag on Unity for popular games like Star Wars: Commander, Wizard of Oz Magic Match, Words for Friends, and Farmville: Tropic Escape.



A subsidiary of 20th Century Fox, this video game producer uses Bugsnag for games built with Unity such as Marvel Strike Force, FoxTales, and Storyscape.



From Warner Brothers Home Entertainment, this video game division uses Bugsnag for mobile games related to Harry Potter, Game of Thrones, and the DC Universe.

Bugsnag

Bugsnag is a pioneer in application stability management. We make error monitoring actionable and help enterprises and small businesses stabilize, prioritize, and fix bugs. As a full stack solution, we are recognized for our best-in-class support for mobile applications. Bugsnag empowers software development, client observability, and release management teams to make data-driven decisions on when to build features versus fix bugs. Organizations experience significant ROI due to faster innovation led by developer efficiencies and improved customer experiences.

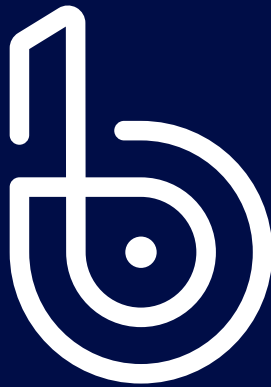
Bugsnag groups issues by root-cause, sorts by business impact, and displays alongside rich diagnostic data, which enables teams to reproduce and fix each bug. A release health dashboard and software stability score help our customers detect broken releases immediately, know when to promote builds from 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 industry leading brands, including Airbnb, Slack, Pinterest, Lyft, Yelp, and Pandora, use Bugsnag as their daily dashboard. Based in San Francisco, Bugsnag is backed by GV (Google Ventures), Benchmark Capital, and Matrix Partners.



SOURCES

- 01 Unity Public Relations. Unity3D.com. Accessed September 2019.
- 02 Entertainment and Media Market Share Size, 2019 Industry Development Analysis, Global Trends, Growth Factors, CAGR Status, Industry Insights by Top Key Players, and Forecast to 2023. The Expresswire Press Release. August 23, 2019.
- 03 The Global Games Market Will Generate \$152.1 Billion in 2019 as the U.S. Overtakes China as the Biggest Market. Tom Wijman for Newzoo. June 18, 2019.
- 04 DeepMind Partners with gaming company for AI research. Nahila Bonfiglio for The Daily Pot. September 30, 2019.
- 05 Visualizing the Future: Demand for 3D Graphics and Real-time 3d Across the Economy. Burning Glass Technologies. May 2019.
- 06 Unity Public Relations. Unity3D.com. Accessed September 2019.
- 07 Distribution of Android apps per download range as of 1st quarter 2018. Statista. 2019.
- 08 Tesla is blazing a trail for in-car gaming with Unity and Unreal Engine ports. Simon Alvarez for Teslarati. May 20, 2019.



Balance agility with stability.