

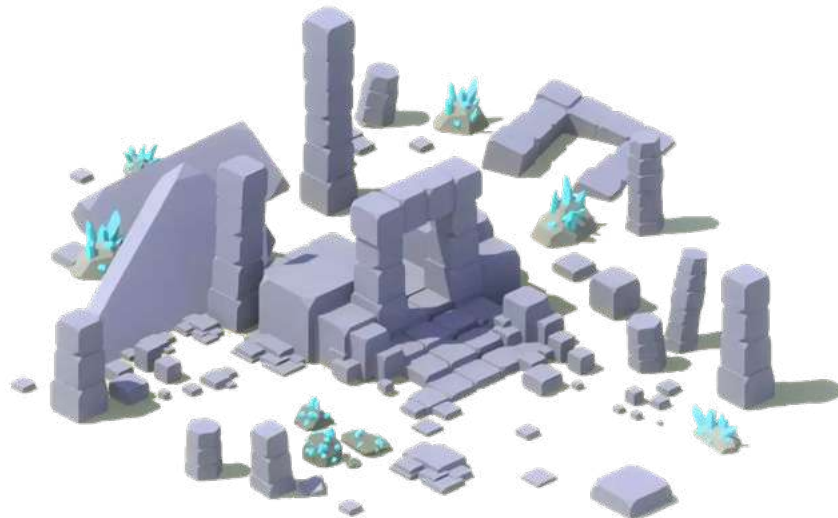
# Mobile gaming trends

What you need to know  
for 2022 and beyond



# Introduction

Learn about the biggest changes in mobile game development – and how you can use them to help your game win.



Low Poly Gems And  
Rocks by A3D –  
Unity Asset Store

Making mobile games is hard, but finding success is even harder. It means knowing how best to realize your game vision, how to ensure a quality experience across a fragmented device ecosystem, how to stand out from innumerable other mobile games, and how to do so within a growing team. Even if you already know how to make a great game, you might still be missing some answers on how to build a successful game business.

Understanding the latest trends in mobile gaming will help you make the right decisions about what types of games to develop, the audiences you'll target, and which marketing and monetization strategies to adopt. The market for mobile games keeps getting bigger – but the development challenges you'll face there are growing more complex.

This guide integrates the Unity team's years of experience helping our customers launch thousands of successful games.

Paired with the latest market research, it provides a snapshot of the mobile gaming market. We created it to give you a sense of the latest trends, the opportunities these changes create, and how Unity solutions can help you meet development challenges and expand your user base.

We'll dig into the top six trends that are shaping the mobile game market, now and into the future:

- Mobile is the fastest-growing segment in gaming.
- Players expect AAA-quality experiences on all their devices.
- Players want a more connected experience.
- Studios are refining genre strategies and monetization practices.
- Crossplay and spin-offs are driving stronger branding.
- Privacy concerns are complicating monetization tactics.

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**Mobile is the fastest-growing segment in gaming.**







## TREND 1

Mobile devices have enabled 24/7 gaming anywhere, and gamification now permeates every online experience, from marketing and sales to education. The rate of growth for mobile gaming is constrained only by the distribution of devices and bandwidth, with people of all demographics playing mobile games at surprisingly similar rates.<sup>1</sup>

If you're developing mobile games, rest assured you'll be busy in a growing market for some time. And regardless of how many developers are scrambling for a piece of the pie, there will be plenty of dessert for all. Nearly four billion smartphones will be in people's pockets in 2021,<sup>2</sup> and nearly 1.8B people have downloaded games for these smartphones.<sup>3</sup> By 2025, it's estimated that this number will have exploded to more than 2.2B.<sup>4</sup>

Critical factors that studios should account for in their strategic planning include:

- Worldwide, mobile gaming (smartphones and tablets) will generate revenues of over \$85B in 2021 and over \$100B in 2023, with an overall compound annual growth rate (CAGR) of more than 18%.<sup>5</sup>
- The majority of gaming revenues will be from mobile by 2023.<sup>6</sup>
- Asia/Pacific is, by far, the largest and fastest-growing regional market.<sup>7</sup>

<sup>1</sup> AdColony Report

<sup>2</sup> Bankmycell/Statista

<sup>3</sup> Statista

<sup>4</sup> Statista

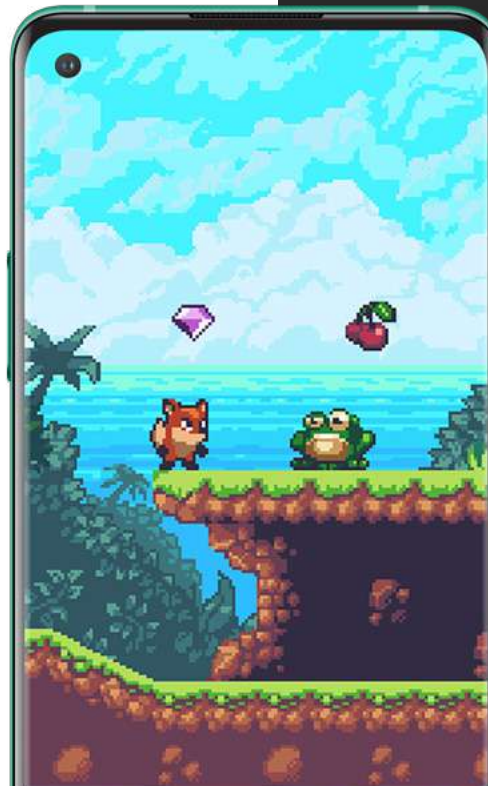
<sup>5</sup> Newzoo 2020 Global Games Market Report

The opportunity:

# Reach a larger audience by developing for all devices

The practical takeaway from these statistics is that regardless of which demographic, genre, or geographical region you're targeting, cross-

platform development is obvious low-hanging fruit. What can make cross-platform development challenging is not so much the different code bases, but rather the need to optimize your game for an ever-increasing number of different devices, all with different hardware capabilities. While there've been fewer than 10 primary iPhone models, there are thousands of different Android-based smartphones with varying performance capabilities.



Sunny Land by  
Ansimuz - Unity  
Asset Store



# 71%

of the top 1,000 mobile games in 2020 were created using the Unity platform

## How Unity can help

71% of the top 1,000 mobile games in 2020 were created using the Unity platform. The studios that developed them chose Unity for its robust ecosystem of tools to help make beautiful games that run well across any mobile platform, as well as services to help developers grow, engage, and monetize their player base to run a sustainable business.

Low Poly Nature Gradient Pack by  
JustCreate – Unity Asset Store

<sup>5</sup> Newzoo 2020 Global Games Market Report

<sup>6</sup> [Gaming Market – Growth, Trends, Forecasts \(2020–2025\)](#)

<sup>7</sup> Newzoo 2020 Global Games Market Report

<sup>8</sup> [Unity Shareholder Letter](#), February 2021



2

**Players expect AAA-quality experiences on all their devices.**

**AAA**





## AAA

## TREND 2

As smartphone capabilities have expanded, mobile games' production values have more than kept pace. Better mobile chipsets provide greater performance with less battery drain, powering higher screen resolutions on display sizes that now average 6 inches. And 5G's unprecedented speed (20× 4G) and low latency (20 ms to 5 ms)<sup>9</sup> is making PC-quality experiences sparkle on smartphones and AR headsets.

As a result, players increasingly expect mobile gaming experiences to rival consoles and PCs. They want to play sophisticated, graphically intense games on any device. They want to find their friends, get matched with competitors, and they want to do so on any device, in any corner of the world. They want transparent content updates frequently, if not constantly.

These expectations generate enormous pressure for developers to keep up with production standards while trying to innovate unique gameplay. A polished, high-quality experience will keep players more engaged and playing longer, but hardware-intensive games with rich worlds or complex gameplay require specialized low-level programming knowledge to work efficiently on different chipsets.

Mountain Environment - Dynamic Nature  
by NatureManufacture - Unity Asset Store

<sup>9</sup> Ericsson, "5G and gaming: 5 things to know about 5G if you're a gamer"

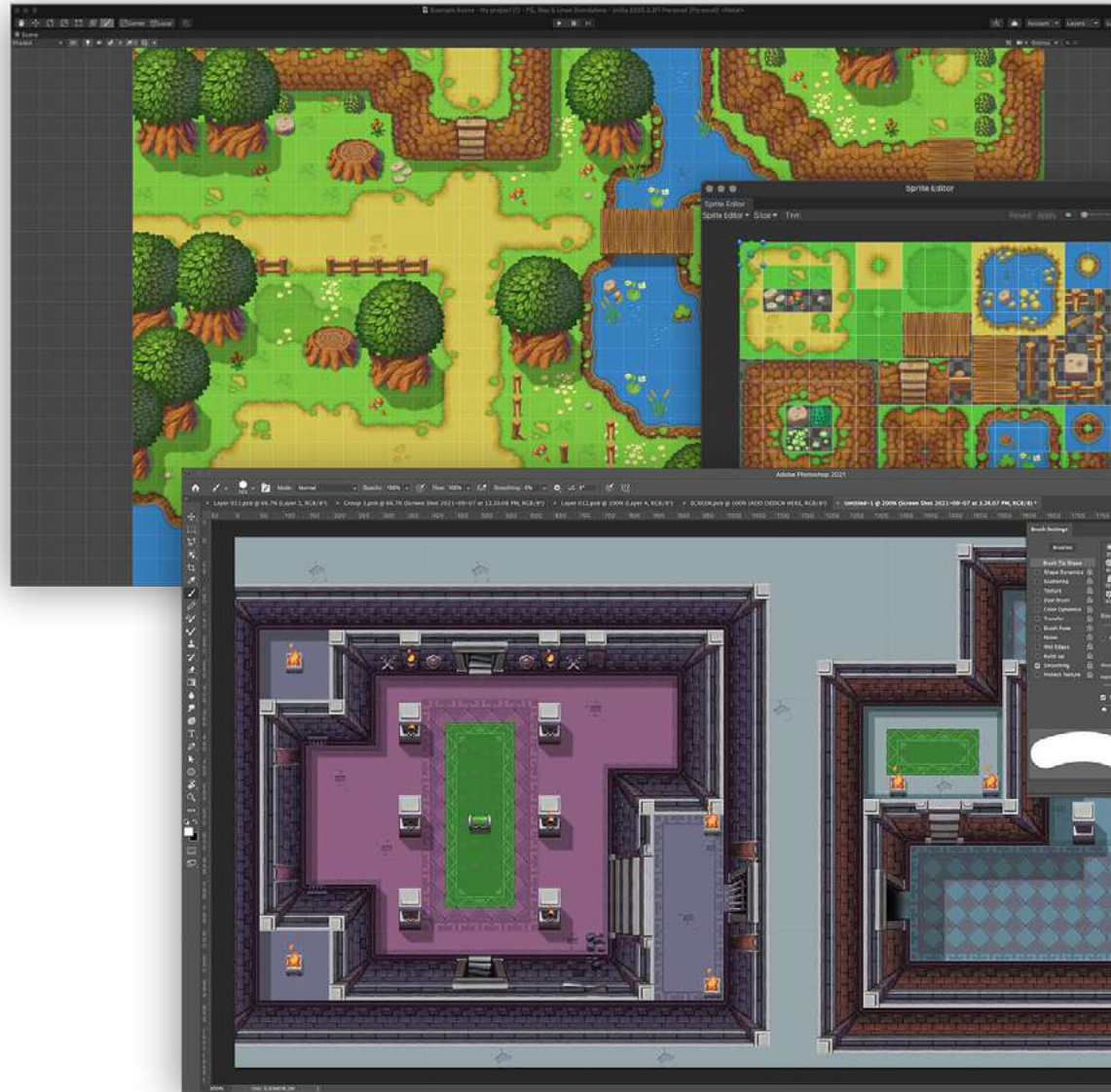


The opportunity:

# Drive engagement through better art and gameplay

The same technological advancements that have raised player expectations so dramatically have also boosted developers' ability to meet them. It can be tempting to think that there's no longer need to worry about cross-device performance or porting to different platforms.

Success means being strategic when considering a game's art style and design, then choosing development tools that will make it easier to deploy to many platforms and meet the highest player expectations. The right tools enable you to apply even more creativity to your art and gameplay. Increasingly, the "how" of your game is taken care of, relatively transparently, by your development platform, giving you greater freedom to focus on creative factors.



2D Hand Painted – Grassland  
Tileset by Daniel Thomas –  
Unity Asset Store





## How Unity can help

A number of Unity capabilities simplify creating and distributing best-in-class gaming experiences across diverse mobile devices:

- The Unity [Universal Render Pipeline](#) provides open and flexible rendering to deliver maximum-quality graphics for high-end devices, as well as optimized performance for lower-end devices – all customizable using C# scripts.
- The [C# Jobs System](#) lets you take advantage of multithreaded code for enhanced game performance. The Unity [Burst Compiler](#) is a new LLVM-based backend compiler technology you can harness to run your games faster than ever.
- Unity offers numerous optimization tools to help you make sure your game will run well across different mobile devices, including the [Memory Profiler](#), [Frame Debugger](#), [Profiler](#), [Roslyn analyzer](#), and the [Device Simulator](#).
- To easily deploy game content, Unity [Cloud Content Delivery](#) is an end-to-end service for pushing live game updates with a content delivery network (CDN) and back-end-as-a-service (BAAS) built for game development.

Fantasy Forest Environment by Triforce  
Assets – Unity Asset Store



3

**Players want a  
more connected  
experience.**







### TREND 3

The social element is an important way to drive a successful and long-lasting gaming experience. The ability to play with others and enjoy full communications without network lags can make any game more immersive and sticky. The proliferation of 5G promises to bring the kinds of immersive and highly-competitive multiplayer game experiences that people expect from consoles and PCs to mobile gaming as well. And because a 5G network enables more CPU-intensive processing in the cloud rather than on devices, even lower-end units will be able to join in.

According to a recent industry report, more than half of frequent gamers play online with others an average of seven hours a week, and 55% reported using social gaming to stay connected during the pandemic. The growth of sophistication in multiplayer gaming has been a continuous trend for years, and multiplayer games can be astonishingly complex social environments. For some, it's all about winning and accomplishing goals. For others, simple human interaction is ample reward. But everyone is there because engaging multiplayer environments have turned gaming into an interpersonal playground.

Low Poly Animated People by  
polyperfect – Unity Asset Store

<sup>10</sup> [Entertainment Software Association](#)





WITH HELP, YOU CAN FOCUS ON THE IMPORTANT PART OF YOUR GAME.

The opportunity:

## Stay focused on gameplay

Developing a multiplayer game isn't easy. Nailing server orchestration with highly volatile bandwidth requirements and complex technology stacks is a tremendous challenge. Offering a seamless, reliable environment with good matchmaking – balancing player skills, attributes, and network considerations – is also key.

Outsourcing backend tasks like server orchestration and matchmaking frees up your team to create thoughtful and tailored approaches to the multiplayer experience. For example, creative developers can optimize asynchronous turn-based, real-time PVE/PVP gameplay, integrate share-to-social features, and find new ways to use ghost objects and characters. You can focus on designing delightful gameplay rather than troubleshooting esoteric networking issues.

Low Poly Animated People by  
polyperfect – Unity Asset Store





### How Unity can help

Unity provides key game-server hosting solutions for operating and optimizing multiplayer games:

- Unity [Multiplay](#) is a resilient multicloud server hosting and matchmaking platform that removes the complexity of creating and operating backend technology and infrastructure. This lets you concentrate on gameplay while Multiplay keeps game launches and live operations running smoothly.
- Implementing voice communications is another complex backend challenge, and [Vivox](#) is Unity's answer. Vivox is a hosted, managed solution for voice and text chat that helps your game to consistently deliver the best player experience possible. You can integrate [Vivox](#) for free for up to 5,000 concurrent users.



Low Poly Animated People by  
polyperfect – Unity Asset Store

4

**Studios are refining  
genre strategies and  
monetization practices.**







#### TREND 4

Here's the headline: **Gamers are playing longer and spending more than ever.** For mobile gaming from 2016 through 2020, 75th-percentile player retention at day 30 grew by 7.1%. In-app purchase conversion rates rose by 7.7%. Mobile gamers spent more money, more often. And since 2020, mobile ad revenues are up more than 8%.

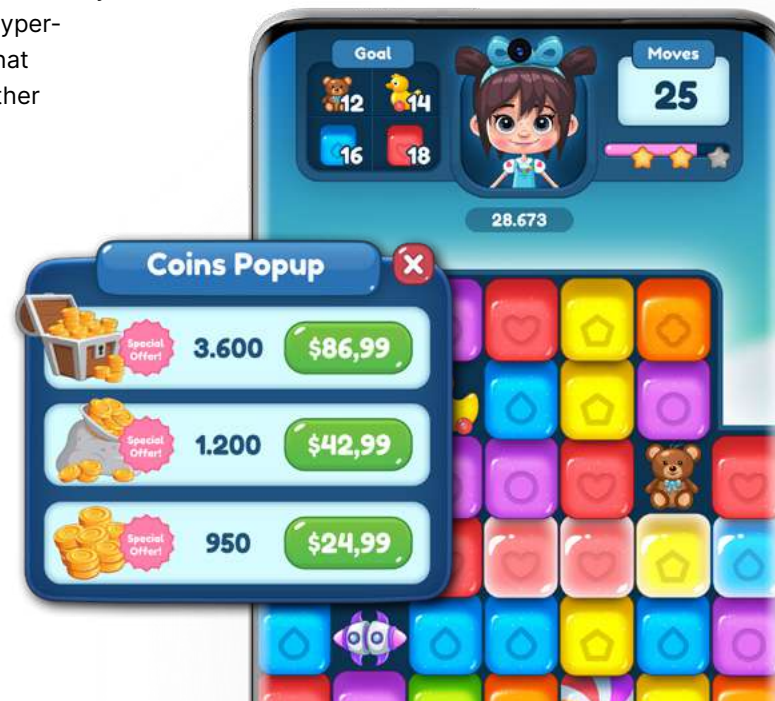
But the competition is also thicker than ever, and the studios that profit most from these improvements are the ones that plan and take a disciplined approach to monitoring genre trends and monetization techniques.

The hyper-casual genre continues to dominate download charts, and it's likely to continue growing to a nearly \$100B market by 2022.<sup>11</sup> Traditionally, hyper-casual gaming is defined by puzzle, word, and card games, plus a seemingly infinite number of variants that are lightweight and instantly understood for easy play. However, many define hyper-casual as any game that's free to play (F2P) and that makes most of its money from ad monetization rather than conversions.

Puzzle Match Kit by Gamevanilla –  
Unity Asset Store

The top downloads in 2020 are a good clue to how genres are likely to shake out in the next few years: mostly hyper-casual, but with clear inroads from mid-cores, especially as bandwidth and device performance improve. The #1 and #3 top downloads were battle royales, while the rest were hyper-casual, with the exception of a virtual pet app.

Any F2P game requires skillful follow-up for monetization, and in-app purchases (IAP) and rewarded ads will continue to be the primary approaches. Ads will also generate consistent monetization results for nearly all mobile gaming categories. Rewarded ads, content that gamers have chosen to watch in exchange for a game advantage of some sort, have the highest effective cost per thousand impressions (eCPM) and return significantly better click-through rates (CTRs) than banner ads.



The opportunity:

# Take advantage of monetization tools

The gaming industry is like any other: Developing robust plans and aligning your tech stack accordingly are the keys to success. Gaming is a mature industry, relatively speaking, and you can leverage a wealth of best practices to keep your key performance indicators on the uptick.

These best practices include using AI-enabled analytics that provide player insights quickly, so your team can more deeply understand trends and rapidly iterate and update. Optimizing ad placements and in-app purchase configurations, preferably with a tool tightly integrated into the development platform, is another essential best practice for driving revenue.



Low Poly Cars by Broken  
Vector – Unity Asset Store

City 3D Low Poly 6 Industrial  
by NOT\_BROWN\_PUBLISHER  
– Unity Asset Store

## How Unity can help

Unity provides integrated and in-depth analytics capabilities for key insights into gameplay, monetization, and more to help you hone your games' player experience. [Unity Analytics](#) are a built-in feature of the Editor, while [deltaDNA](#) is an add-on Unity product that provides deeper insights with greater customizability.

Unity's monetization suite gives you comprehensive tools and analytics to grow your game and drive the most revenue. Working within the Unity Editor, you can integrate powerful [Unity Ads](#) mediation. You can also quickly set up [IAP](#) with a single, unified API that saves you significant engineering hours.





The background is a stylized, low-poly 3D rendering of an Asian village scene. It features a multi-tiered pagoda with a blue roof and red accents, a traditional wooden building with a balcony on the left, and a small boat in the foreground. The scene is set against a dark, hazy sky with stylized mountains in the distance.

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**Crossplay and  
spin-offs are driving  
stronger branding.**





## TREND 5

The combination of advancing technologies and more sophisticated development platforms has made it much easier to port the same game – even midcore and hardcore – to any device, from the most powerful PCs to hybrid consoles. This crossplay trend is essential to growing multiplayer gaming. Players may have different preferences in devices, but at least they can play the same game and be part of a wider user base.

Of course, any game played with a gamepad, multiple buttons, and a 75" screen won't generate the same experience on a smartphone. That's why studios are increasingly creating spin-offs, using their primary brand IP from console or PC versions in variations optimized for mobile experiences. This trend started years ago with games like *Pokémon GO* and *Hitman GO*, but it's picked up with games such as *Monster Park AR* and *Crash Bandicoot: On the Run!*

Spin-offs are brand-enhancing smartphone companion apps for console and PC games. These appeal to more dedicated players, ranging from character configurators to chat programs. For example, *Destiny 2* has spawned ten companion apps from the Bungie studio that let players track stats, inspect weapons, manage items, and even research opponents.

SurrounDead – Survival Game  
Assets by Justwo – Unity  
Asset Store

The opportunity:

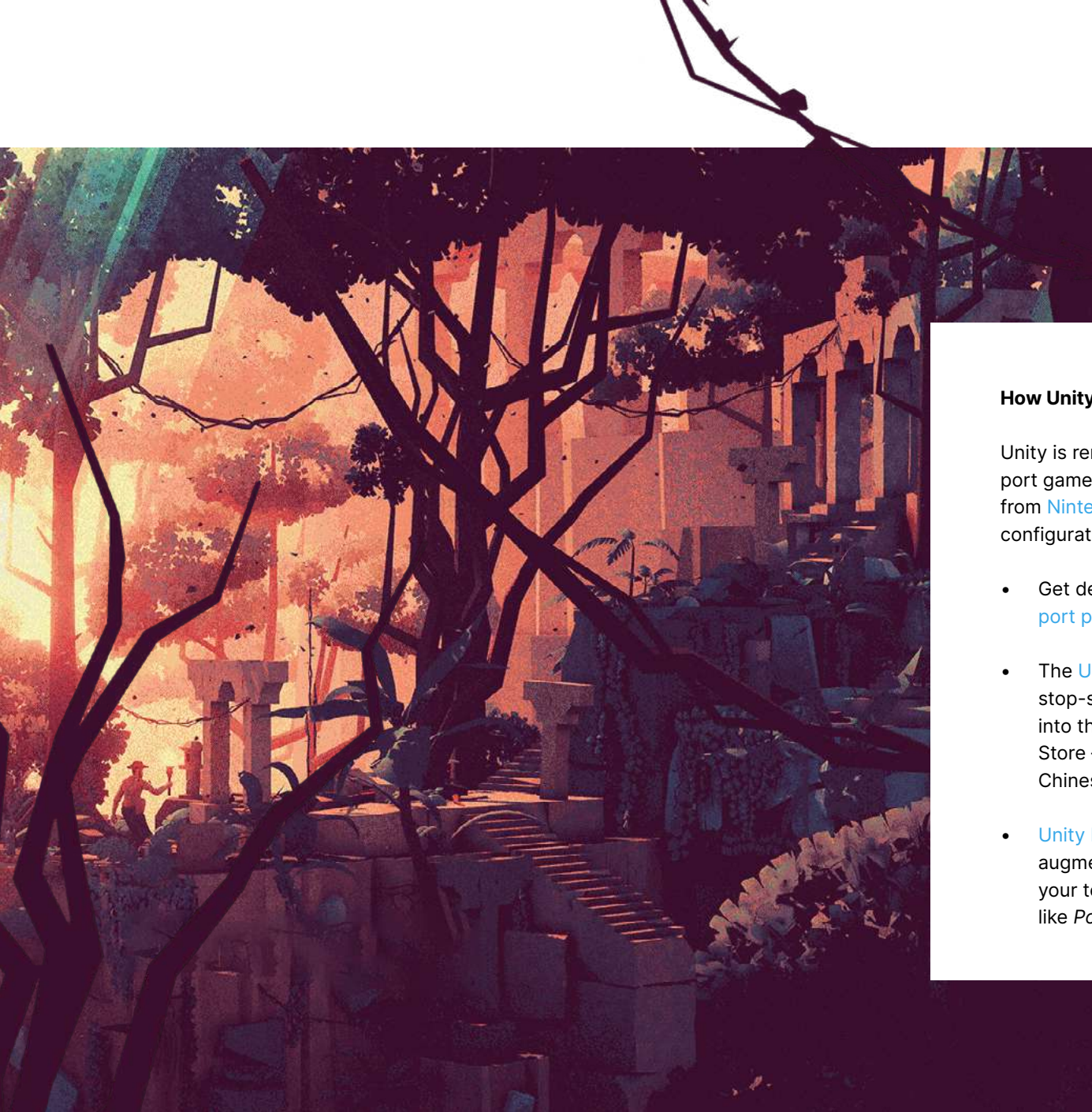
## Expand your user base

Developing for diverse platforms with crossplay adds costs, but this can throw open the doors for a substantially larger user base. It involves greater risks, but these can be justified by the potential rewards. Plus, extending an existing IP to mobile devices increases the overall brand value and enables greater cross-promotion for other games and companion apps.

Another benefit of porting games to mobile is simply extending your mindshare. In addition to whatever game time a user is racking up on a console or PC, they're spending additional time with the brand's mobile spinoffs or companion apps when they're out and about.







### How Unity can help

Unity is renowned for its ability to quickly port game versions to any mobile platform, from [Nintendo Switch](#) to iOS and the myriad configurations of Android smartphones.

- Get details about how Unity helps you quickly [port projects between platforms](#).
- The [Unity Distribution Portal](#) (UDP) is a one-stop-shop for mobile game developers to tap into the Android ecosystem beyond the Play Store – particularly within heavily regulated Chinese app stores.
- [Unity MARS](#) enables the integration of augmented reality experiences into games, so your team can create AR spin-off experiences like *Pokémon GO* and *Angry Birds: FPS*.

The Lost Lands  
by Beffio – Unity  
Asset Store





6

**Privacy concerns  
are complicating  
monetization tactics.**





#### TREND 6

Ad tracking has been a fundamental part of the mobile advertising ecosystem for some time, and historically Apple enabled this with a device identifier called the Identifier for Advertisers (IDFA). In 2020, Apple announced that in iOS 14, the rules and system for how IDFA could be shared and used by publishers and advertisers would change. Users would now be required to actively opt in to ad tracking, creating a major shift in how monetization and user acquisition strategies were executed. As of the spring of 2021, these new rules have started to be enforced, and the long-term impact on revenue and growth is yet to be seen.

While this was not the first time a major shakeup has happened in the mobile advertising ecosystem, it was a significant one since studios rely on expected ad performance to drive their business and growth plans. For more details on ad tracking changes, our [iOS 14 resource center](#) includes content such as our app-readiness guide that breaks down the frameworks and processes that now govern how IDFA is shared and used.

Utopia (HDRP )by  
KitBash3D – Unity  
Asset Store





The opportunity:

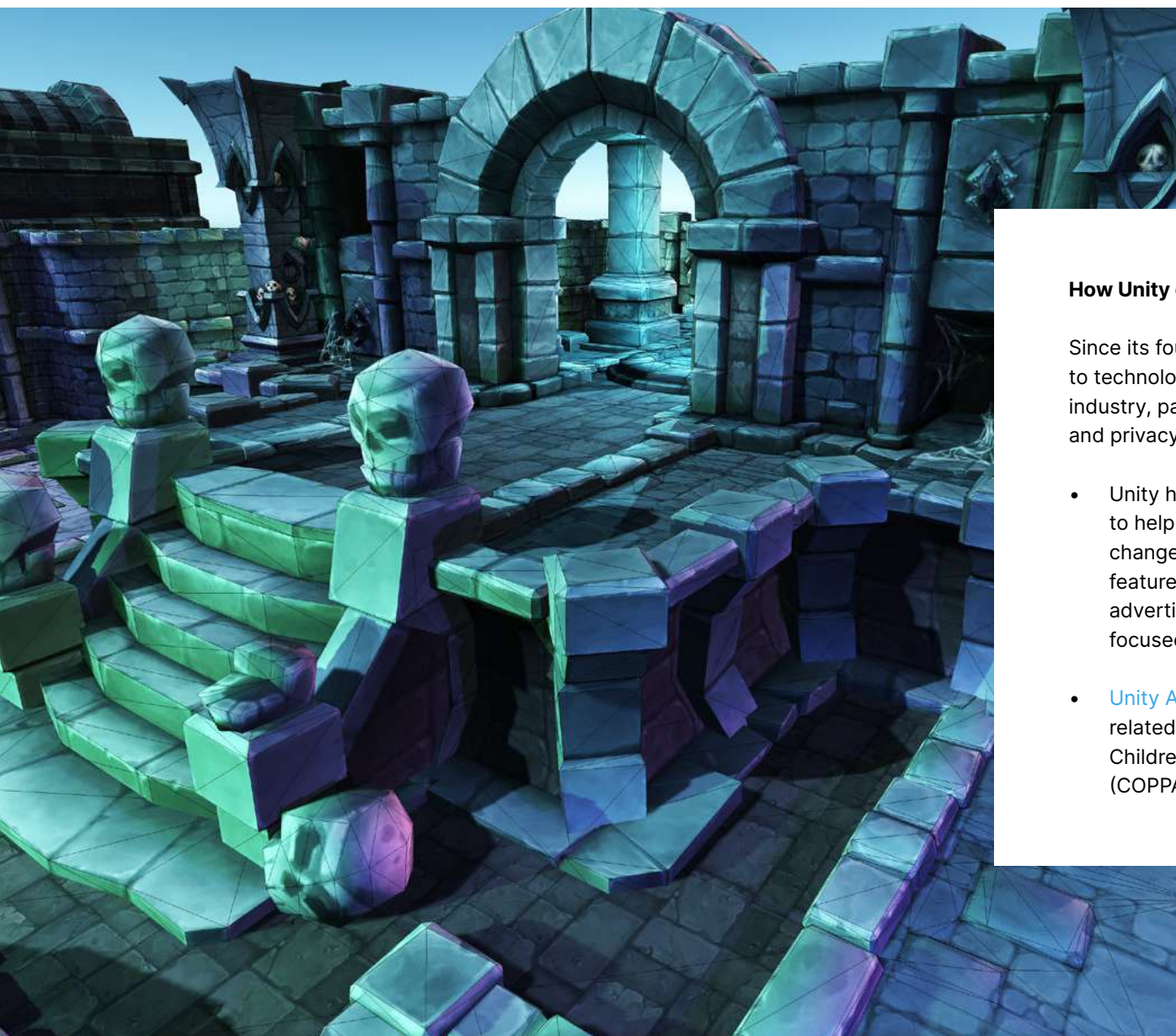
## Keep on keepin' on

Regardless of how predictably ads will perform, studios always benefit from knowing as much about their monetization strategies as possible. But no monetization strategy will mean much without a great game that engages and retains users by performing optimally across diverse platforms. The best strategy is to remain focused on monitoring your monetization strategies' performance, pivoting when necessary, and diversifying the distribution of your games across multiple stores to ensure a healthy revenue as you figure out what works best in this new environment.



Lich by Meshtint Studio –  
Unity Asset Store

Dungeon Cute Series by Meshtint  
Studio – Unity Asset Store




### How Unity can help

Since its founding, Unity has responded quickly to technological and cultural shifts in the gaming industry, particularly in the areas of security and privacy.

- Unity has comprehensive [iOS 14 Resources](#) to help studios work with the tracking changes in iOS 14. Resources include features and content to help publishers and advertisers transition smoothly to a privacy-focused ad environment.
- [Unity Ads](#) helps studios comply with privacy-related regulations in such standards as the Children's Online Privacy and Protection Act (COPPA) and the GDPR.

Dungeon Builder Starter  
Set by BitGem – Unity  
Asset Store





# Set your studio up for long-term success on mobile

Understanding technology and market trends can inform how you assess your current practices and look for better ways to run your studio. How do we sum up these insights and trends? Mobile gaming is growing faster than ever, technologies are improving device performance across the board, and the Unity development platform is providing the most complete solution for making beautiful, highly performant mobile games. Most importantly, players are having more fun than ever.

We hope this e-book has left you inspired. Unity is the preferred platform of successful mobile game developers, powering more than 70% of the top 1,000 mobile games worldwide. Our team is always here to help you take on the right tools and services to make sure you're supported throughout your game development journey, from concept to commercialization.

If you're ready to get going, [you can gain access to Unity Pro today](#) or [talk to one of our experts](#) to learn how we can help you take your game to the next level.

**Get Unity Pro**

**Talk to our experts**

The Lost Temple by TRIPOLYGON, Inc.  
– Unity Asset Store

