



PERFORCE

2022 GAME DEVELOPMENT TRENDS & FORECAST

INTRODUCTION

WELCOME TO THE 2022 GAME DEVELOPMENT TRENDS & FORECAST REPORT

We're excited to bring you the results of our 2022 survey!

This year, we surveyed more than 300 professionals working in the game development industry. We asked participants to weigh in on the biggest challenges their teams and projects are facing, how Covid has changed their way of working, and what predictions they have for game dev in the next few years.

Finally, we gathered insights on the tools and technologies used to support game development. From game engines to graphical tools, we dug into what helps and hurts these professionals.

We hope the information in this report will inform decisions your game development team makes on tools and processes.

Thank you to everyone who participated in our *2022 Game Development Trends & Forecast* survey.

Brad Hart

Chief Technology Officer, Perforce

Key Findings



Game developers predict that streaming will become the dominant platform by 2025.



COVID-19 has permanently changed the way teams work, with remote teams across time zones becoming the new normal.



Most game dev teams are doing at least part of their game development in the cloud.



Creatives are a larger part of the game development process than ever before.

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THE FUTURE OF GAME DEVELOPMENT

We asked game development professionals about the future of game development. They weighed in on what trends they see leaving a lasting impact versus those that are fads.

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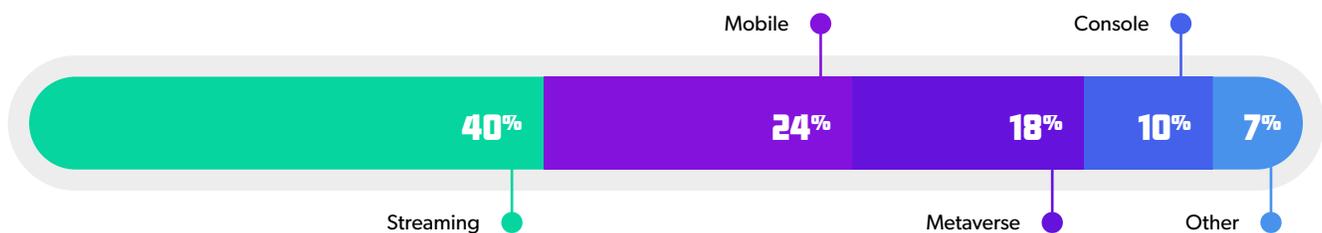
[Top Predictions For Game Development by 2022](#)

WHAT WILL IMPACT GAME DEVELOPMENT THE MOST?

Streaming was the most popular answer to the question “which game development platform will grow the most by 2025?”

Customers are increasingly demanding to play their favorite games on whichever system they want to use, so game companies are feeling the pressure to offer streaming services. The second highest group at 24% said mobile will grow the most by 2025 — considering it is a platform the vast majority of people already own.

Streaming helps gaming move forward faster, with less reliance on hardware, meaning games are more transportable and accessible for those unable to afford a game system or PC. Game dev respondents predict an increase in the creation of infrastructure around 5G to better support mobile and streaming play.



RELATED READING: [Essential Mobile Game Development Software for Teams](#)

In Your Words



“The future is with Streaming when it comes to gaming. Everyone now wishes to play their favorite PC and Console games during a bus ride, it only needs the suitable infrastructure to grow more, and I can see that this can be possible in 2025.” – Anonymous



“Streaming allows more games to be played that people otherwise couldn’t play without an expensive console or PC build.” – Brian Avila

WHAT ABOUT CURRENT TRENDS IN AR, VR, METaverse, AND NFTS?

Augmented reality (AR), virtual reality (VR), the metaverse, and most controversial of all, non-fungible tokens (NFTs) captured attention in the early 2020s. We asked participants what they thought of these trends and if they believe they will last.

Augmented and Virtual Reality: Here to Stay

More than 75% of respondents say that either AR or VR will have at least some impact on game development by 2025. While 33% say it will have a major impact.



A lack of availability, accessibility, and affordability will likely keep AR and VR from being as mainstream as desktop or console. Game dev professionals forecast virtual reality having an even bigger impact on other industries, though. One respondent expects a higher impact on education and healthcare.

In Your Words



"I believe AR potentially has the greatest impact if it can seamlessly work with devices that are readily available. However, the others are more niche and not as accessible to people. AR likely has more bleed over to other industries, which will make it more attractive." – Anonymous



"Due to a lack of availability to baseline tech, AR, VR, and extended reality (ER) will not be able to scale in the same proportion as typical desktop applications nowadays. It is and will be for a while a luxury or product of choice." – Anonymous

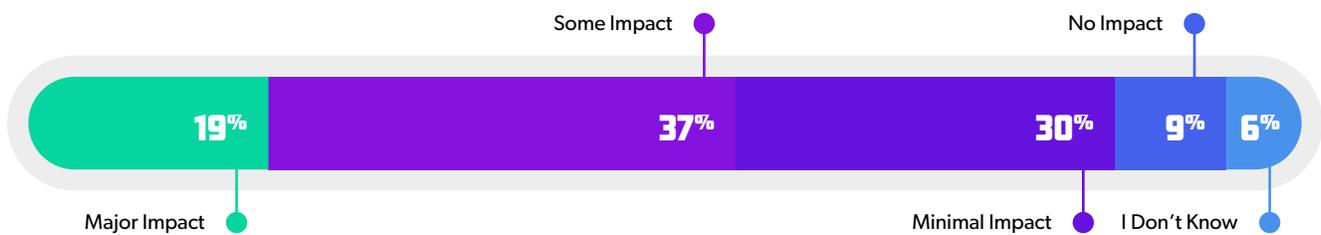


"I believe in about 10 years or so VR will be more than just a game experience. It will stretch beyond the limits of reality, not just a virtual one. It will bring us to a whole new world and create new aspects of life. It will be able to be used longer and will maybe even help in more jobs and save lives in the future." – Elijah McElwian

Metaverse: A Mixed Bag

The metaverse is a loose term being used to reference a network of 3D virtual worlds. Most famously, Facebook has rebranded to Meta, a move made to focus on the metaverse. Meanwhile, other tech giants like Microsoft and Sony are buying up major studios in what appears to be a massive bid on this speculative virtual future. Even so, survey respondents are divided on what impact it will have on the industry in the next few years.

At 37%, the largest group of respondents say the metaverse will have some impact on the game industry by 2025, while 30% say it will have a minimal impact. Only 19% say it will have a major impact.



In Your Words



"I think 'metaverse' as a marketing term will probably inspire a bunch of new short-lived, low-quality games, but any good things enabled by the 'metaverse' have already been done in older games."

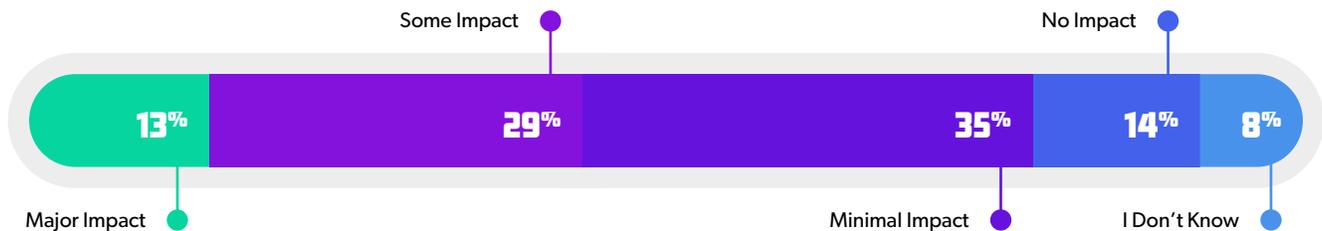
– Anonymous



"2025 is still too soon to make the impact people are talking about, as we can see with VR this idea can provide numbers, but it won't do it in a short time." – Mateusz Kruk

NFTs: Here Today, Gone Tomorrow

NFTs have made the news for their role in selling and buying art, fashion, real estate, and in-app gaming. Game development professionals, though, overwhelmingly (49%) said NFTs would have either no impact or minimal impact on the future of the game industry.



Many respondents don't see how NFTs benefit gamers, viewing them as a way for big studios to make more money with no added value to customers. And concerns over environmental sustainability may discourage the use of the cryptocurrencies behind NFTs – leading to a decline in popularity.

In Your Words



"The reality is that NFT technology does not do anything that a centralized database cannot — if Microsoft wants people to buy a Master Chief helmet in Halo and use it in Call of Duty, they need only tie it to a player's Xbox or Game Pass account; they have no need to involve the blockchain. It is more costly and less efficient. Once the gold rush dies down and people buying purely to invest cash out, NFTs will settle into a place of being digital collectibles for superfans, a niche item for a niche market." – Anonymous



"I have yet to see a game use NFT technology in a unique way. Right now it seems like a gift. People add NFT tech to games so they can include that buzzword in their product." – Anonymous



"The reality is that there is nothing an NFT can do that game development companies with global scale can already do using their own services, apart from waste energy and wreck the climate." – Anonymous

TOP PREDICTIONS FOR GAME DEVELOPMENT BY 2025

We invited game development professionals to share their top predictions for game development in the upcoming years. Here are some of their responses.

Move to a Subscription-Based Model



"Subscription services like Game Pass will begin to make selling individual games less viable, and the industry will move to a Netflix/Hulu model. Eventually, even console hardware may become irrelevant." – Anonymous



"The increase in subscription model game development as a replacement to free-to-play game models. We are seeing major publishers work to achieve exclusivity rights to IPs in the game libraries they offer for a subscription fee." – Anonymous

Increase in Indie Studios



"...You'll see (and are already seeing) a huge increase in smaller studios. Unionization is a major possibility." – Anonymous



"I think the big push towards open source and Epic's involvement in supporting small studios will play a large role in pushing Unreal and other engines, further eroding AAA studios and moving production to small groups." – Anonymous

Remote Work as the Future



"I think the way in which we make games will change. Due to Covid, large studios have started to take more of a lax approach to development and allowed for a longer development period, which in the long run has allowed for less crunch and more time for staff to focus on not just their work but their own mental and physical health. I also believe working from home and remote work will become more common, especially in smaller studios and independent teams." – Anonymous



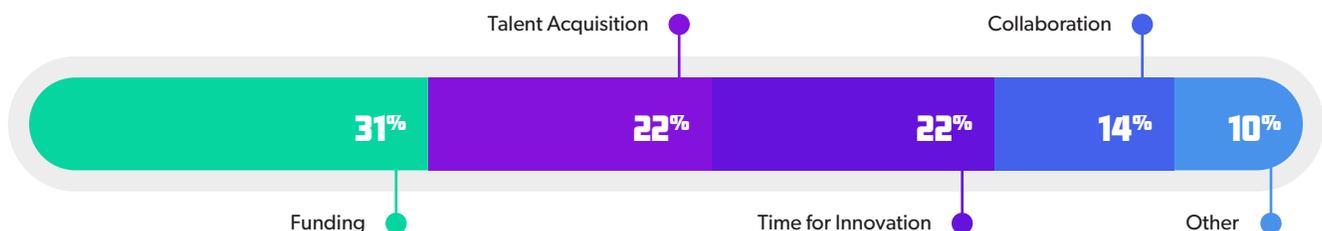
"Remote working will become an expected offer from all major game studios who hope to retain talent." – Anonymous



"With remote work being accepted as the norm, new talent will emerge from developing nations and bring incredible content and stories." – Anonymous

BIGGEST CHALLENGES IN GAME DEVELOPMENT

Across the board, game development professionals share the same frustrations. Funding once again was the top challenge according to 31% of participants — only a slight dip from 33% in 2020. Other common challenges include keeping and attracting employees, finding time to innovate, and collaboration.



WHAT CHALLENGES IMPACT GAME DEVELOPMENT STUDIOS TODAY?

It's apparent that these challenges are prevalent throughout the industry, in teams both large and small. Let's dive deeper into what these challenges are and how teams are approaching them.

#1 Challenge: Securing Funding For Teams/Projects

Lack of sufficient funding snowballs into other challenges, like having no time for innovation and fewer resources for talent acquisition and retention. Adequate funding allows for better tools, bigger teams, and faster development.

RELATED READING: [Top Tips For Getting Game Development Funding](#)

In Your Words



"For funding we are looking at any available grants via government and companies such as the Epic MegaGrant program, as well as bootstrapping as much as we can." – Luke Brewerton



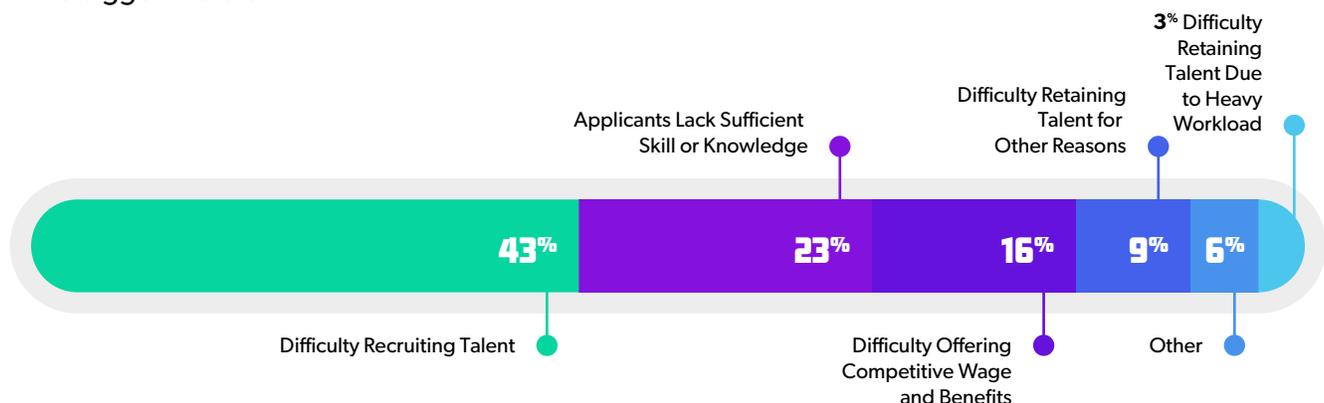
"I've been in contact with professionals from another organization in hopes to start a crowdfunding campaign and get our game developed faster." – Anonymous



"We're thinking of making prototypes to attract backers and investors, also starting with small companies and small-to-medium scale projects to maintain funds." – Mostafa Nabil

#2 Challenge: Talent Acquisition and Retention

It is no wonder 22% of respondents reported talent as an issue. The competitive market has made it difficult for small teams to compete with the wages and benefits of larger studios. Add in the "Great Resignation", and teams are struggling to attract and retain top talent, with almost half of respondents citing recruitment as the biggest hurdle.



So how are teams currently trying to overcome the pervasive talent shortage?

In Your Words



“Using recruiters, hiring from out of area for remote work.” – Anonymous



“Expanding geographic regions, employing recruiters, using LinkedIn Recruiter.” – Anonymous



“Increasing recruitment via attending GDC and posting on Handshake instead of just relying on networking.” – Anonymous

#3 Challenge: Time For Innovation

With limited funding and not enough bandwidth, teams are stretched to deliver projects on time. There is rarely time to iterate, according to 36% of respondents. Another reason there’s not enough time to innovate? There are not enough team members or expertise on the team, said 31% of respondents.

Several respondents said they are developing games as a side gig and are juggling a full-time job and development at once. Whatever the case, there aren’t enough hours in the day for most game development professionals.



In Your Words



“Introducing processes and pipelines to improve efficiency like CI/CD, shift left testing, functional testing, technical QA, etc.” – Anonymous



“Making iterations more meaningful, working on tools and processes to make development flows more efficient.” – Romain Moret

THE KEY TOOLS AND PROCESSES FOR SUCCESS

Tools, methodologies, and processes can make life better or worse, depending on which ones you are using. We asked respondents what top tools they are using, how they are using them, and what their processes are.

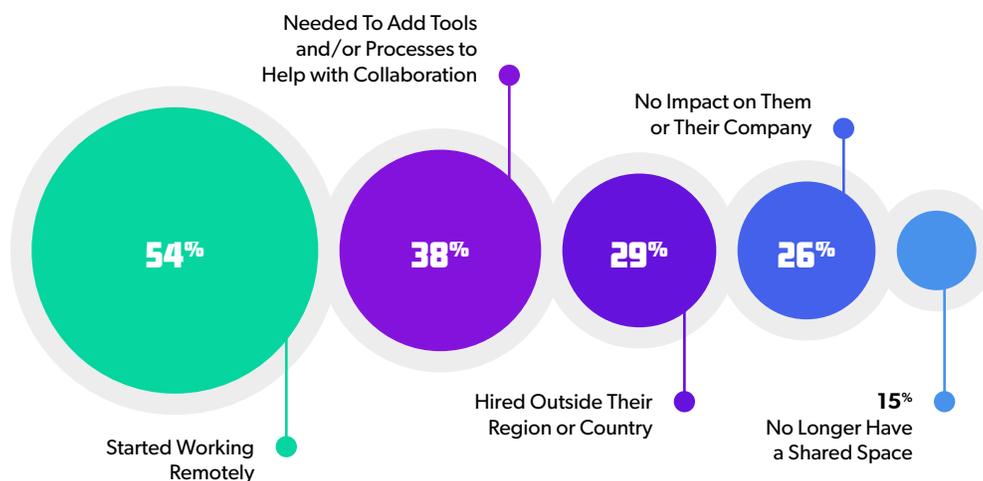
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HOW HAS COVID-19 CHANGED THE WAY TEAMS WORK?

We have all seen that COVID-19 has changed the world, so we wanted to explore how exactly it has impacted the way game studios and teams work. More than half (54%) of respondents said they started working remotely, with 15% forgoing office space altogether.

With teams moving out of an office and into different time zones, it's no wonder 38% of respondents said they needed to add tools and/or processes to help with collaboration.



RELATED WEBINAR: [Going Remote: Build Your Game Development Team](#)

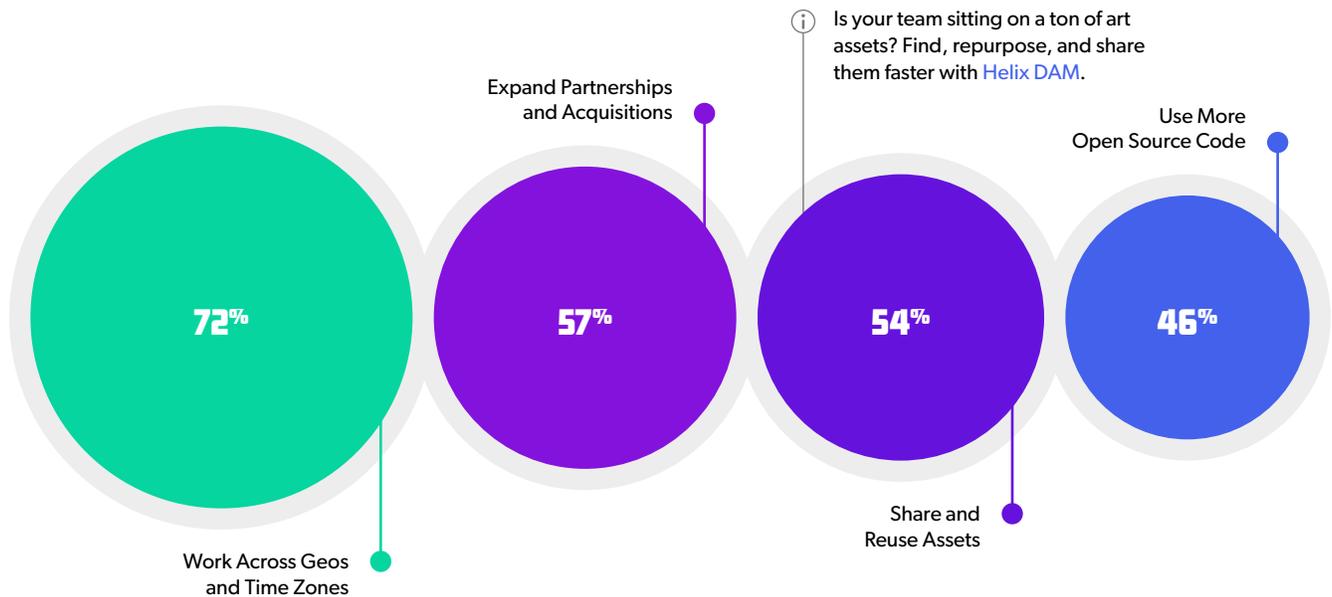
In Your Words



"Covid had a big impact on remote working all over the world, and it will facilitate collaboration all over the globe. I myself work remotely 100%." – Anonymous

Collaboration

With more teams working remote, we wanted to know: How will game studios become more collaborative? It should be noted that participants could choose more than one answer.

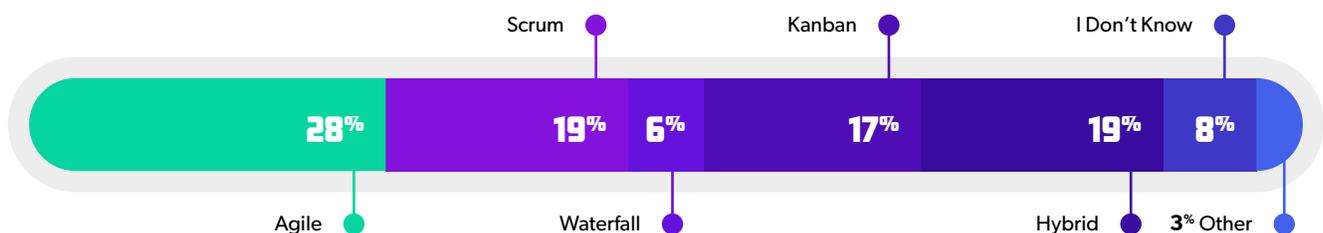


Collaboration will expand across borders in the coming years, even more than we’re seeing now. Covid overwhelmingly helped teams realize they have more flexibility to work with people across time zones.

Survey takers also expect to see more partnerships and acquisitions (57%), share and reuse of assets (54%), and use of more open source code (46%).

Methodologies

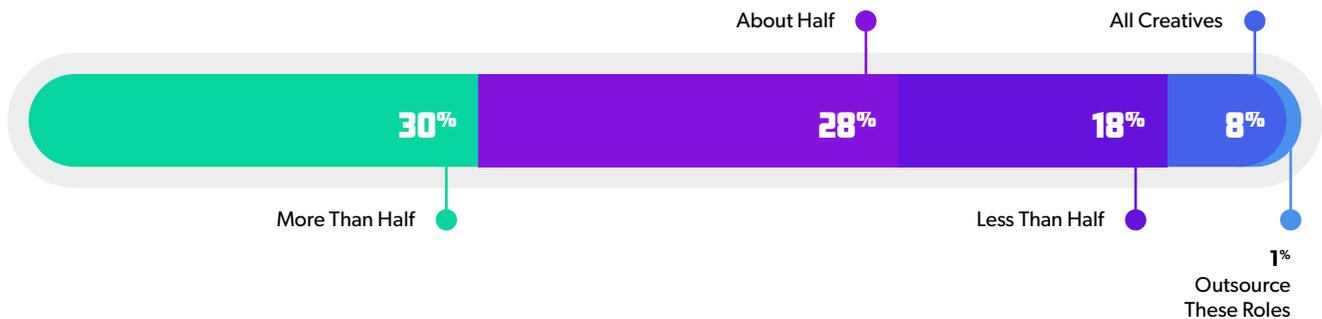
Teams use a variety of development methodologies to build a game. There is no single method that works for every team. Many survey takers used Agile (28%), opting for different Agile methods like Scrum (19%) and Kanban (17%). While 19% of survey takers used a combination of methods. Few use Waterfall (6%) alone. And 3% say they either don’t use a methodology at all or use a methodology loosely based on one of the above.



Team Makeup

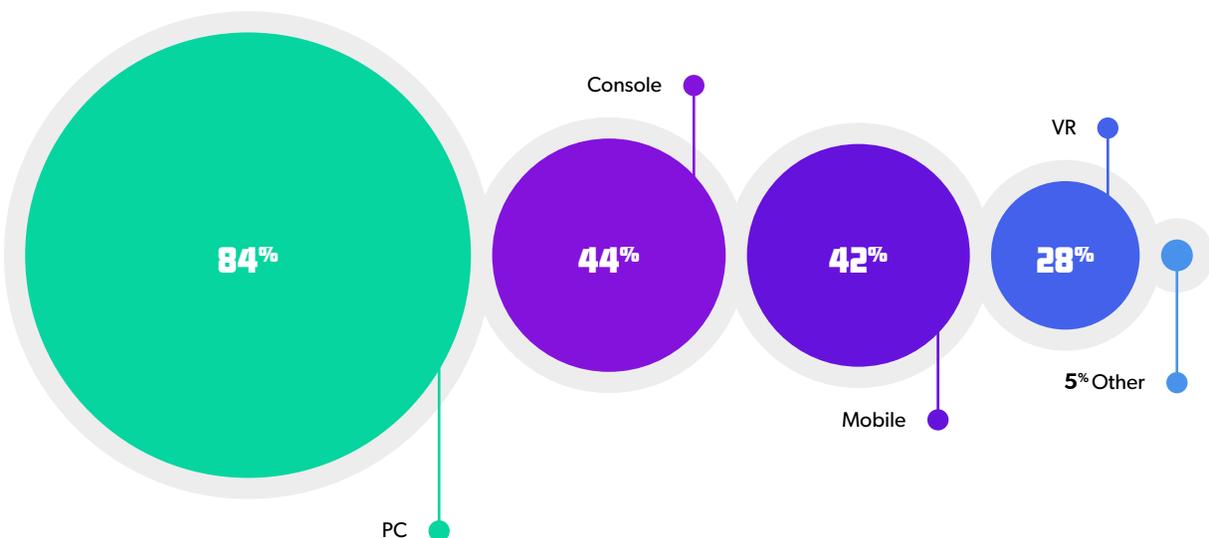
Art is becoming one of the most important, if not the most important, aspects of a video game. That means creative teams within game dev studios have gotten bigger to address the demand for better, more inventive, and more immersive art.

Almost two-thirds of respondents say at least half of their team is made up of creative, non-coding roles, such as artists, designers, and animators, while 30% said more than half of their team is made up of creative roles, and 28% said about half is creatives.



What Are They Working On?

With mobile gaming and streaming forecasted to grow, we wanted to know what platforms respondents are developing for now. The result is mainly PC (84%), followed by console (44%) and mobile (42%).



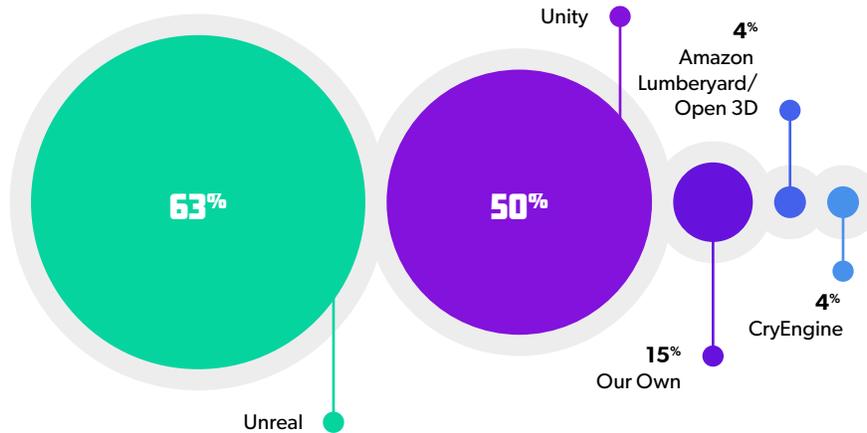
This is not surprising, as PC game development has the lowest barrier to entry and indie game development is still popular.

WHICH TOOLS DO THEY USE?

We asked survey takers which tools and technologies they are using to develop their games, from game engines to IDEs and more.

Game Engines

Unreal and Unity are the clear winners here, with 63% of respondents using Unreal compared to 50% for Unity. Participants were able to choose more than one engine, with 11.5% choosing more than one.

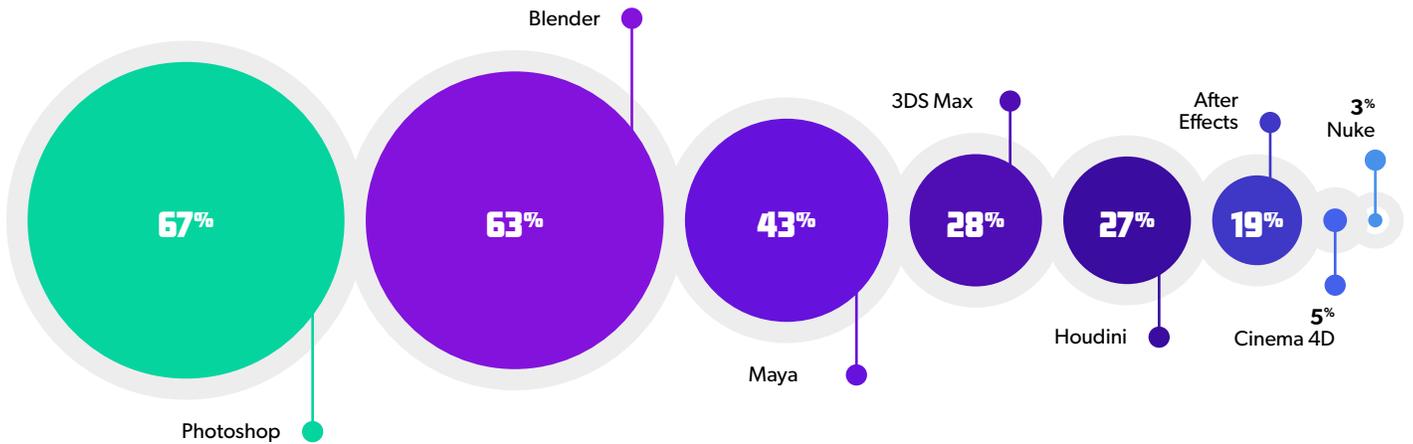


Choosing a game engine largely depends on the scope of a project, the number of people on the team, the amount of assets, and what resources the team has available for tools and technology. Familiarity with an engine also doesn't hurt.

Need help choosing a game engine? Here is a deeper dive into the [most popular game engines](#). Otherwise, see how you can get started with [Unreal Engine](#) or [Unity](#).

Digital Content Creation

Photoshop (67%) and Blender (63%) are the most commonly used graphical tools, according to respondents. It should be noted that participants could choose multiple options, and we saw a wide range of combinations, including game engines being used to create art assets.

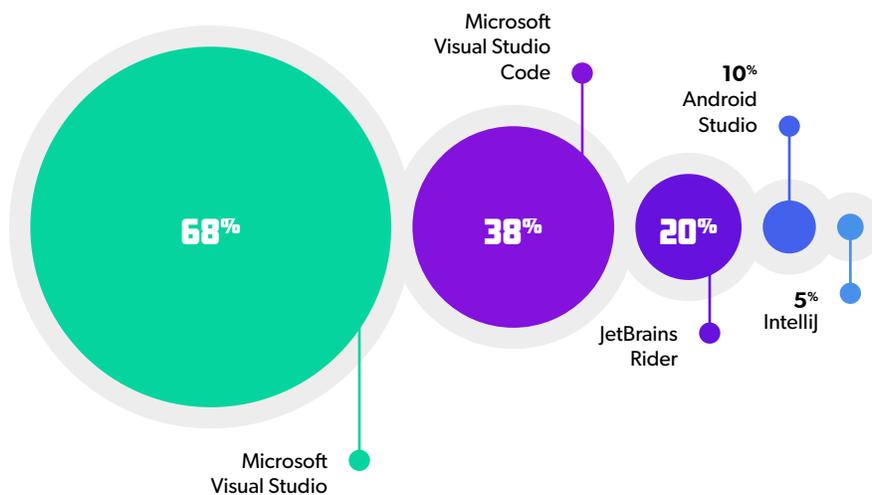


Selecting the right graphics tools is important. One thing to consider is whether graphics tools are integrated with the rest of the toolset, especially version control.

RELATED READING: [Version Control For Designers](#)

Integrated Development Environments (IDE)

At 68%, Microsoft Visual Studio is the leading choice for an IDE, followed by Microsoft Visual Studio Code and JetBrains Rider in third.

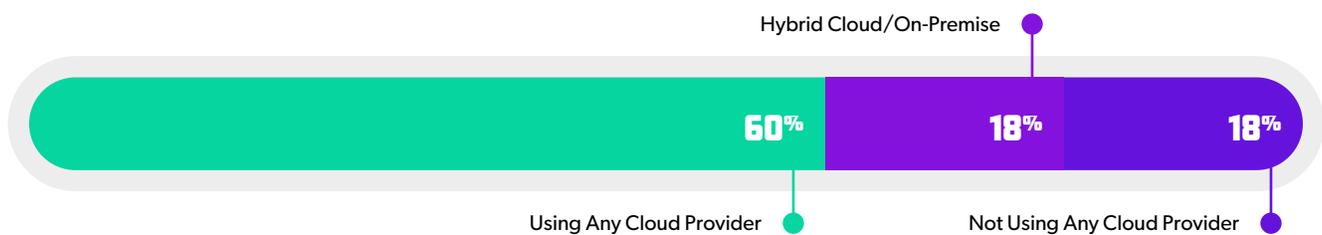


Microsoft Visual Studio has been a developer favorite for years now, due to its tight integration with other tools and ability to easily edit and debug code.

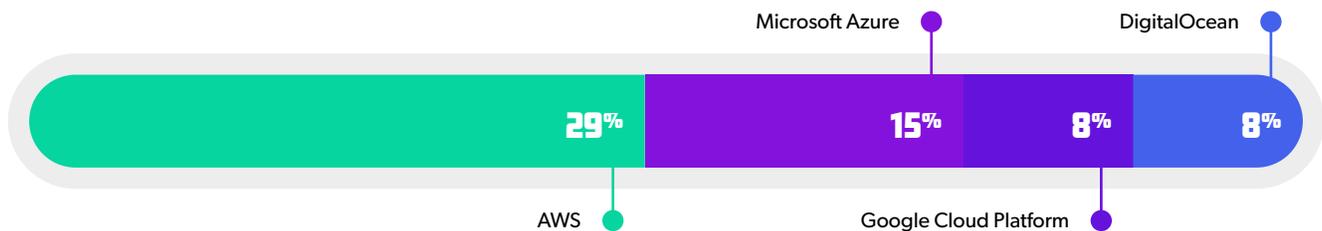
RELATED READING: [How to Use Microsoft Visual Studio With Unity and Perforce](#)

Cloud Usage

Using the cloud for development eliminates the need for costly hardware. Teams can access files from anywhere, enhancing global collaboration. The overwhelming majority of users (60%) are developing games either solely on the cloud or using a hybrid model of cloud and on-premise. Only 16% of respondents said they are not using the cloud for game dev.



For respondents using a hybrid or 100% cloud model, AWS was the leading platform with 29% of respondents using their services, followed by 15% using [Microsoft Azure](#). Other mentions include [Google Cloud Platform](#) (8%) and [DigitalOcean](#) (8%).

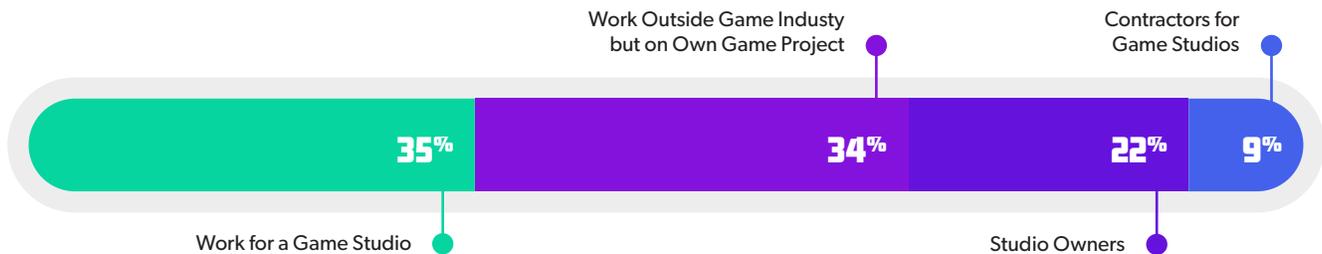


RELATED READING: [Cloud Game Development Solutions For Your Team](#)

SURVEY DEMOGRAPHICS

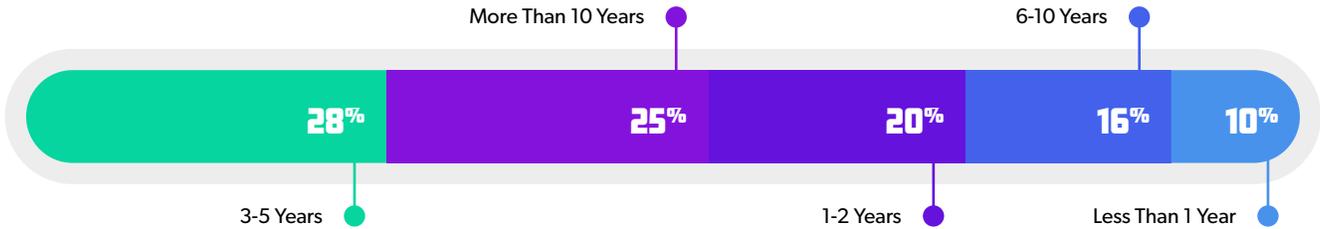
In the first half of 2022, we surveyed more than 300 people in the game development industry. We asked participants where they work to get an understanding of the types of projects and teams involved.

The most popular answers were “work for a game studio” (35%) and “work outside game industry but on own game project” (34%). Knowing there are so many freelance developers helps account for some of the top challenges we saw earlier — i.e., securing funding and having time for innovation.



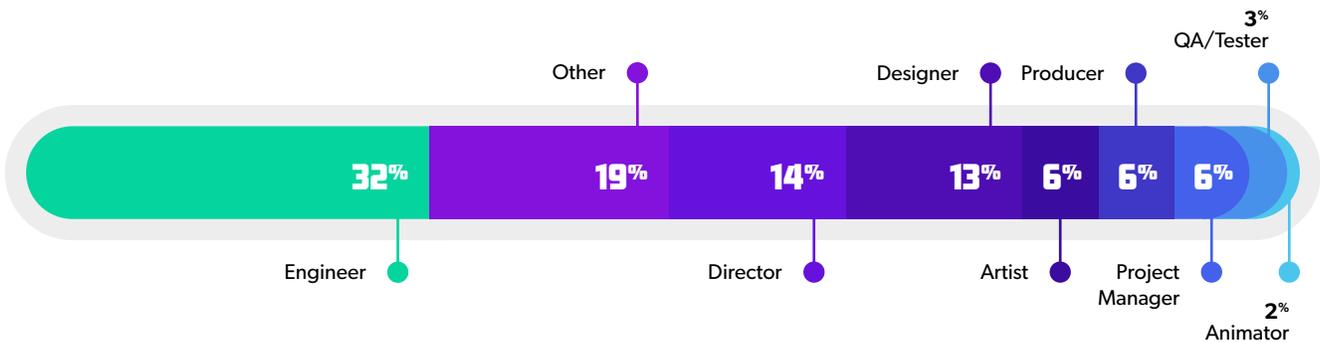
How Long Have You Been in the Game Industry?

We asked our survey takers how long they have been in the game industry. Answers were varied, but a quarter said they've been working in the industry for 10 years or more. A small number of respondents are either new to the industry or are still in school.



Job Title

Lastly, we wanted to know what type of roles our survey takers have. While we expected a large number to be engineers (32%), it was interesting to see a higher-than-expected number of creatives. Animators, artists, and designers together made up 20% of respondents.



SUMMARY

BUILDING THE TOP GAMES FOR THE FUTURE

The game industry is always changing, but recently, external factors have had a larger influence than usual on how game professionals work. Our survey responders showed that remote work is here to stay, despite some challenges in communicating and collaborating around the globe.

In addition, a talent shortage is pressuring teams to work harder, faster, and smarter to account for knowledge gaps, turnover, and tightened scope.

Despite these challenges, game developers are pushing to create more accessible, innovative games. Most survey respondents forecast a bigger shift to streaming and mobile games.

We also heard from game professionals on trends such as virtual reality, augmented reality, the metaverse, and NFTs. The role of VR/AR in the industry is expected to grow, while the metaverse's future is murkier. What almost everyone agreed on is the minimal impact NFTs are expected to have.

Setting Up for Success with the Right Tools

Trends can be controversial, but what is not controversial is this: Teams need the right tools and processes to be successful. And those tools need to evolve to keep up with the fast pace of game development.

Using Perforce's industry-leading game development tools — Helix Core, Hansoft, and Helix DAM — your team can accelerate iteration and innovation to conquer tomorrow's challenges today.

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