international | digital wallonia .be

GDC

March 18–22, 2019
San Francisco, CA

Belgian Trade Commission
AWEX

Baudouin de Hemptinne
Céline McA'Nulty

San Francisco

BELGIAN.GAMES

Table of Content

Wallonia-Belgium Trade Commission and AWEX

WALLONIA EXPORT-INVESTMENT AGENCY

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www.awex-export.be
www.investinwallonia.be

Wallonia.be
EXPORT
INVESTMENT

The Wallonia Export-Investment Agency (AWEX) develops and manages the international economic relations of Wallonia, the Southern region of Belgium. The agency, which employs more than 400 people, promotes the competitive advantages of Wallonia internationally.

AWEX makes use of its global network of more than 100 offices to strengthen in a sustainable way the image of Wallonia abroad. To promote international business relations, AWEX exchanges commercial information with both the international business community and Walloon companies.

The agency provides exporters, importers and potential investors with information on:
- the region of Wallonia and its export potential by means of macro-economic data
- Wallonia-based companies and their products/services
- the potential of Wallonia-based companies for international partnerships

Furthermore, AWEX assists companies based in Wallonia with a wide range of services in regard to their international activities such as:
- gathering information on foreign markets
- carrying out individual market studies upon request
- organizing trade missions, group stands at international fairs, and visits to Wallonia by foreign dignitaries and captains of industry
- promoting commercial contacts with international organizations
- providing financial incentives for export activities
- organizing professional training of specific commercial skills
- increasing awareness of international business opportunities

In addition, AWEX has a key role in the expansion or development of the business of potential foreign investors. It offers its expertise in how to establish a business in Wallonia, as well as provide them with detailed information and tailored made assistance on local investment opportunities.

In attendance at GDC-San Francisco :

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The BTC in San Francisco

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What do we do?

Our office, The Belgian/Wallonia Trade Commission—Wallonia Export-Investment Agency (BTC-AWEX) is a foreign government agency entrusted with promoting trade and business opportunities between Belgium and the U.S. Our office in San Francisco is the pilot office for the whole U.S. market in the following sectors: ICT, Cleantech, Cinema/Trans media, Advanced materials.

Our mission is simple: "To primarily help businesses from Belgium, and more specifically Wallonia, export more efficiently to the United States and, secondly, attract American investors to the Wallonia region." To do this effectively, our offices are here to simplify the export process for Small and Medium Enterprises to the United States.

As an export partner for Wallonia-based companies, BTC-AWEX offers a wide range of export-oriented services and activities, ranging from providing general and commercial information on U.S. markets to promoting the Wallonia region and engaging American investment.

Our objective is to provide information and advice to American companies looking to establish expand or reorganize their European operations and who would consider Wallonia their ideal strategic location. As a government agency, BTC-AWEX provides the following services free of charge and on a confidential basis.

http://www.wallonia.us/en/pages/our-team-5

https://sites.google.com/a/belgiantrade.org/www/aboutus

Gamers from Wallonia @GDC

ABRAKAM

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Gary Morris, Head of Community and Esports

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Rebelle

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In Detail

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Abrakam's mission is to deliver groundbreaking strategy game experiences where both single and multiplayer enthusiasts get together on their favorite devices. Our journey started with Faeria, a unique and critically acclaimed Strategy Card Game which launched early 2017.

WHAT: Independent game company; Faeria, a strategic pay-to-play card game on living board

WHEN: Founded in 2013

Timeline: 2005: the idea is stemmed: they want to create a strategic card game for PC: Faeria

2013: presence at the PAX and SPIEL conventions; Kickstarter campaign raised over $94.000

2015: They grow beyond PC using Unity and meet with the Belgian incubator seed accelerator The Faktory, who invest in their idea.

2016: Faeria launches on steam early access

2017: Faeria officially launches on PC

FIRE FALCOM

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Founded by veterans, Fire Falcom is providing services at different stages of game development.

We handle full cycles project, or we can intervene on specific part.

We are also providing Flash to HTML5 conversions that target fidelity to the original games.

Our semi-automated toolchain allows to execute the port with great speed and thus great price.

WHAT: Flash to HTML5 conversions, Ports, project development

WHEN:

Julien Hamaide has had experience as a developer since 2005, and Gauther Billot since 2010.

Julien Hamaide and Gauthier Billot founded the company together in 2017.

TYPE:

- Service; contract programming; game development service
- Software: commercial game engines; programming environments/compilers

FISHING CACTUS

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Laurent Grumiaux
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Fishing Cactus is a Belgium based indie game development studio. Our name showcases our originality and ability to strive in a nation without many game development studios.

After the success of the atypical Epistory - Typing Chronicles, released in March 2016, we started working on two new internal productions, the world renown black and white game, SHIFT which is being developed on PC and consoles and Wormworld, a game based on the graphical novel supported by a large community of readers and fans.

Besides, Fishing Cactus has become an expert with Flash to HTML5 porting, currently working with some of the top web gaming platforms to ready their games for the next generation.

To learn more about Fishing Cactus, please visit http://www.fishingcactus.com/

WHAT: game development studio. They initially started with mobile game developments then smaller scale console developments. Today they are still developing mobile games but are also involved in handheld, consoles and desktop game developments including their own IPs. (http://fishingcactus.com/presskits/).

Type:

- Service; contract programming; Funding/VC; game marketing/PR service; game publishing/distributing; Internet/networking infrastructure: IP licensing services; post-production; training/education;
- Software: commercial game engines; programming utilities; VR/AR dev. software

WHEN: Founded by four industry veterans in 2009. In 2015 and 2016, Fishing Cactus won several awards for their typing game, Epistory. The next game in the Typing Chronicles, Nanotale, is set to come out this year.

HELLION CAT

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Ludovic Mahieu
CEO
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You're looking for a flexible, creative and reliable studio? You're looking for work for hire or good IP? May be mobile, web, desktop or even board game or virtual reality?

At Hellion Cat we can help you with all of that! We're specialized in Unity3D & HTML5/Phaser.

We are also skilled with network solutions like Gamespark, Photon, Unity network.

Currently we're working on Cat'astrophes : manking mayhem. In this party game, all of you are cats creating chaos, trying to avoid your hooman anger and making another cat take the blame! In 3 words : crazy cat stuff, funny physics, competitive skills.

Want to know more about us? Come at our booth, send us an email at : hello@hellioncat.com or have a look at our website to check our track record.

> Integration with External Devices (High speed 2D video, ball flight from launch monitor and center of pressure from pressure mat);

> Cloud-based Video & Data Storage and Management

WHAT: Game developer, technical advice, specialized in serious games, xR, boardgames.

TYPE:

- Service; Funding/VC; game publishing/distributing; Internet/networking infrastructure; writer/narrative designer
- Hardware: VR/AR
- Software: commercial game engines; networking middleware; VR/AR dev. software

WHEN: In 2016, Ludovic created his own game studio thanks to his successes in other companies.

REBELLE PRODUCTIONS

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http://www.rebelle-productions.be

In attendance at GDC-San Francisco:

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Rebelle Productions is an experienced Belgian studio specialized in games and serious gaming.

The company is currently working on a unique strategy game called "Demons of Halloween" based on the Halloween Universe. It's a multiplayer figurine game for PC, Mobile and board game.

http://www.rebelle-productions.be/fr/jeux_details.php?id=5

They also work on a mobile card game called "Arkham Noir" based on the famous Lovecraft universe.

The studio is made of young talents and industry veterans with more than 20 years of experience. The team has worked on more than 50 serious games and worked for important companies like the Red Cross, SNCF or Tractebel.

Rebelle is currently looking for publishers, partners and investors.

WHAT: Rebelle is a game studio that creates playful training, communication and awareness tools for your target audience.

Type:

- Service; contract art/animation/video; contract programming; funding/VC; game development service; game marketing/PR service; game monetization; game publishing/distributing; Internet/networking infrastructure; IP licensing services; training, education
- Software: commercial game engines

When: Founded in 2017 by Benjamin François

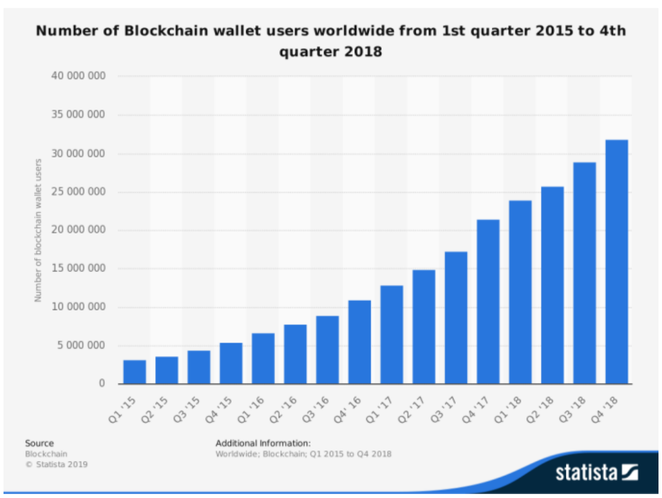
2019 TRENDS

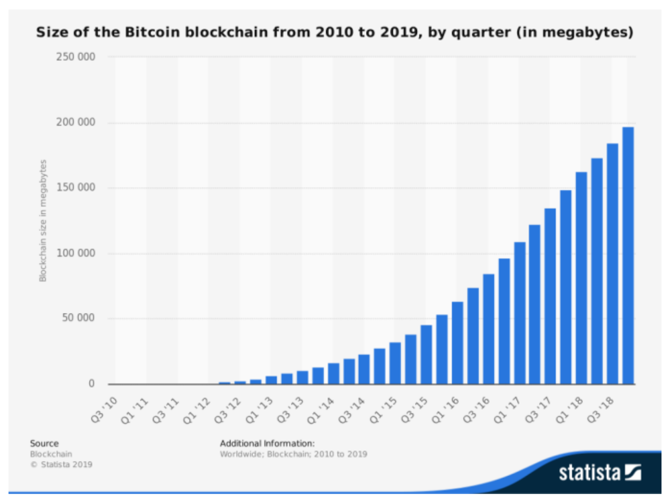
Blockchain

Blockchain is “the Internet of value”: it is made of sequential blocks who each have their own number, which link each other to the previous one. Blockchains are stocked in a decentralized database, protected by firewalls. That means that any created blockchain is recreated in other blockchains; blockchain replicas are made in every network which makes it unlikely for the data in the blockchain to completely disappear; blockchains are especially practical for storing data, as any corrupted blockchains are easily identifiable as the sequential order is not in place anymore and it will be rejected from the network; anyone can see what the blockchain contains.

This means that blockchain can be used as a tracking system for ownership, account balances, contract terms, etc.

Blockchains are mainly used for the cryptocurrency (such as Bitcoin, Ethereum, Tether, Stellar, Litecoin), but also operates in different areas, such as gaming. The number of blockchain users and the expansion of Blockchain are constantly on the rise. To use Blockchain securely, one must also have a secure wallet (Metamask, Blockchain wallet, Indiesquare…)





Gaming platforms

Blockchain gaming

By using Blockchain, video game developers have total power over their virtual worlds. Game developers are usually more open to new technology, which makes blockchain a popular trend. They have started using Blockchain experimentally in 2014, but blockchain is still a rising star, gaining more users year by year.

Blockchain opens a new possibly for gamers: to own a one-of-a-kind, completely unique object or persona, which they can buy, resell, or exchange in blockchain games. These are called crypto-collectibles. The problem is this can be a disguised form of a new cryptocurrency, if you were to pay for actions to be made every time.

Most Blockchain games involve generating money in some way or another, but it has the potential of becoming a gamer's paradise by enabling character growth and object personalization. It also has the potential to be integrated into the eSports system.

Blockchain games:

- CryptoKitties: arguably the first crypto-game. Gamers purchase a unique cat using cryptocurrency (Etherium). This cat can breed with others (for a price) to create potential rare cats using the DNA principal. These cats can then be auctioned for a higher price.

- Online trading card games: Spells of genesis developed by EverDreamSoft, Force of Will: uses cryptocurrency to buy items and blockchain to guarantee ownership of the cards, which can be traded for cryptocurrency or other cards. Whilst most games will use Ether or Bitcoin, some games create in-game cryptocurrencies, such as Force of will, which uses BitCrystals.

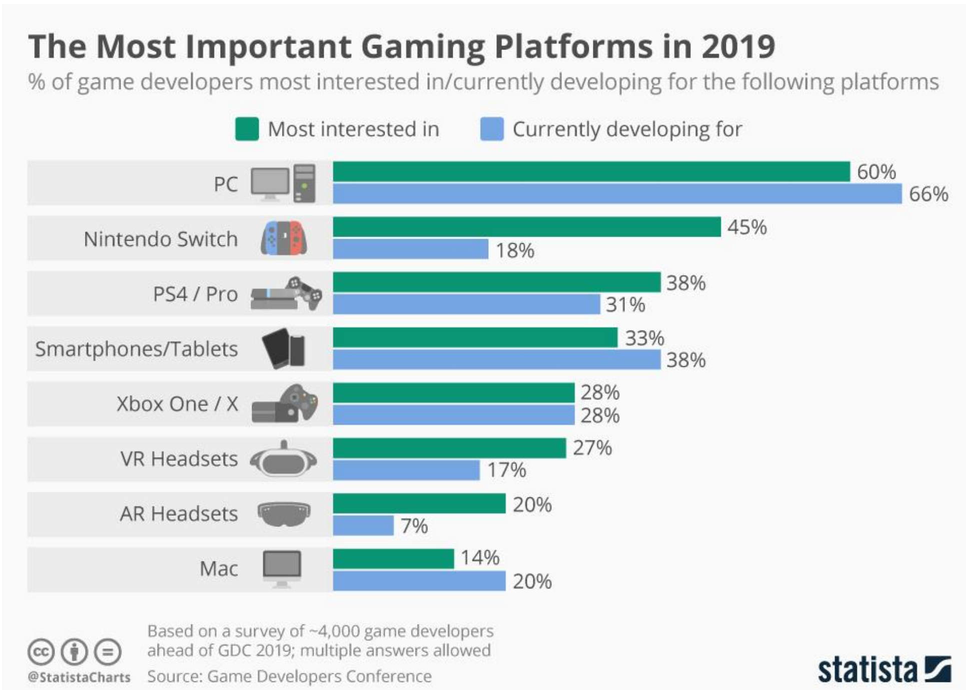
https://www.youtube.com/watch?v=ywvTIM_eOVI

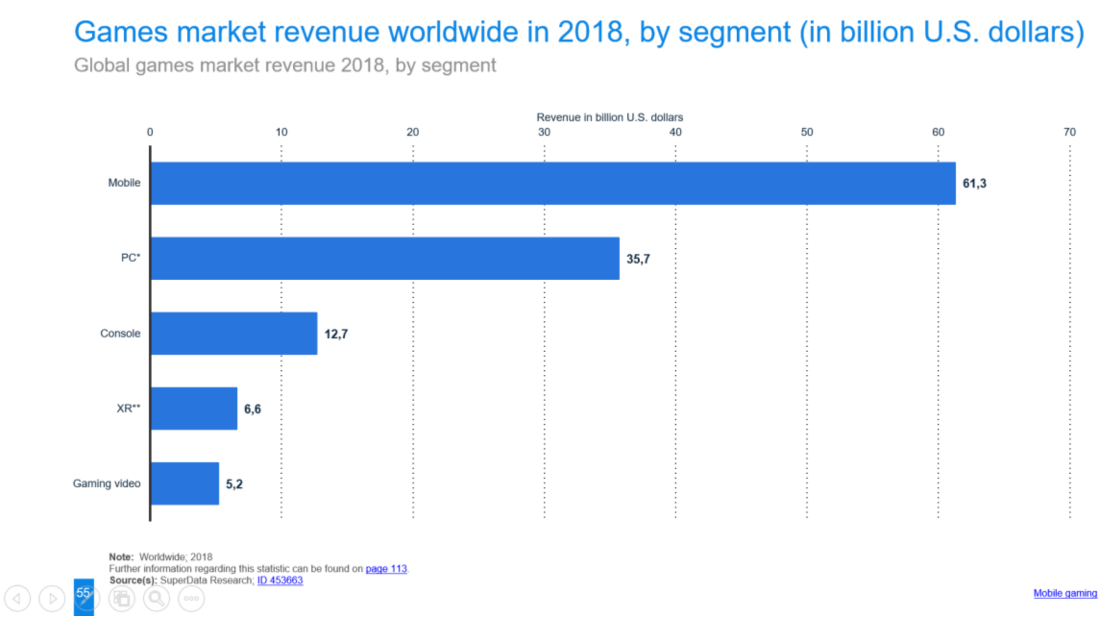
https://cointelegraph.com/news/how-blockchain-gaming-is-evolving-the-way-games-are-played

Traditional gaming platforms

Gaming technology has come a long way since its first steps in the form of Bertie the Brain, the first PC game, the Magnavox Odyssey console, or arcade games from the seventies. We are now in the age of the eighth-generation consoles, online platforms and gaming communities and mixed reality.

In 2018, reports show that the top three grossing gaming platforms are mobile, PC and console, respectively. But in 2019, the GDC's survey shows that PC games are in the lead not only concerning platform interest, but also in gaming development. This shows that developers are slowly turning away from mobile game development to concentrate on PC development. The Nintendo switch, which came out in 2018, also raises interest among game developers, but only 18% of developers are currently developing games for the Switch, perhaps because of the prevalence of Nintendo-made games.





VR

Now VR is not a new technology, but its applications possibilities in everyday life as well as gaming has increased. This increased interest in VR technology means more game developers have been concentrating on releasing VR games. This also means that the VR headsets have become somewhat expected, they have also taken into consideration consumers want for high definition imaging and sound for a more immersive experience. This means developers concentrate on giving the best experience for the user.

Here are some of the expected new VR sets:

HTC Vive Cosmos VR Headset

This new headset should come out in 2019. This headset is aimed at gamers and include VR hand controllers.

Oculus Quest Wireless VR Headset

This headset boasts powerful graphics and high-fidelity audio. It also has wireless spatial tracking technology that allows players to move with six degrees of freedom. The new Oculus headset will debut in Spring 2019, priced at $399.99.

Pimax 8K VR Headset

This headset has an 8K resolution spanning 200 degrees, and smooth 80Hz motion. Set at $899.

Pico Neo Wireless VR Headset

The Neo has 6 Degrees of Freedom (movement in all directions) built right into the headset. This enables full VR immersion in a totally untethered, fully mobile package. Perfect for any user who wants to experience truly immersive VR without wires, attached computers or phones. This headset is reserved for businesses.

https://thegadgetflow.com/blog/virtual-reality-vr-headsets/: Mark Myerson on 01.13.19

Shared VR

As its name implies, shared VR can be viewed by multiple people at the same time VR's potential applications as a multiplayer platform are infinite. Indeed, VR is also becoming a tool to interconnect people: for example, video games like Rec Room and VRChat demonstrate how to simulate face-to-face interactions. With that in mind, it should come as no surprise that professionals from the gaming industry have begun to apply these tools to business teleconferencing, as is the case with Rumii or Eventual.

In this case, the people still need individual VR sets, which means it ultimately remains an individual experience. Which is not the case for new VR technology set by Wisdome in LA. Wisdome, as its name implies, takes the form of a 35,000 Square Foot dome. These domes are “outfitted with 10.1 surround sound to create a shared VR experience that combines the future of art, entertainment, and technology.” This form of VR is mostly used for artistic projections for the moment.

https://www.forbes.com/sites/theyec/2019/02/01/three-exciting-applications-for-vr-technology-in-2019/#129491b204a6

https://thegadgetflow.com/blog/virtual-reality-vr-headsets/

http://www.theconfluencegroup.com/Wisdome/

AR

Even though Augmented Reality technology is not a novelty anymore either, it is continuing to evolve (see Pokémon, section Education). AR enhances experience in the real world by **overlaying** it with virtual details. The main challenge for AR technology will be to become a shared experience, as today the AR experience is unique to the player. For example, Pokémon Go uses AR technology, but only in a very limited capacity: the experience is tailored to the screen on which it is being used. AR needs to be "projected" on a screen, but users do not even have to use a headset, as it can be used via smartphones.

AR glasses and contact lenses

Also called Smart glasses, this futuristic wearable technology is the next step to integrate AR to our everyday life. The current objective is to create AR glasses which combine trendy-looking glasses with sharp AR imaging, as developers have advanced enough in AR technology to now focus on packaging. Today, wearable AR technology enables you to take pictures, videos, recordings, view images and interact with a limited number of apps (such as Alexa), mapping data and health tracking.

Snapchat's Spectacles were the first to penetrate the general user market. These glasses are focused on taking pictures and sound videos and are connected to Internet via Bluetooth, but these glasses are conspicuous and not very fashionable, which has made them lose potential buyers and the smart glasses launch was deemed a failure.

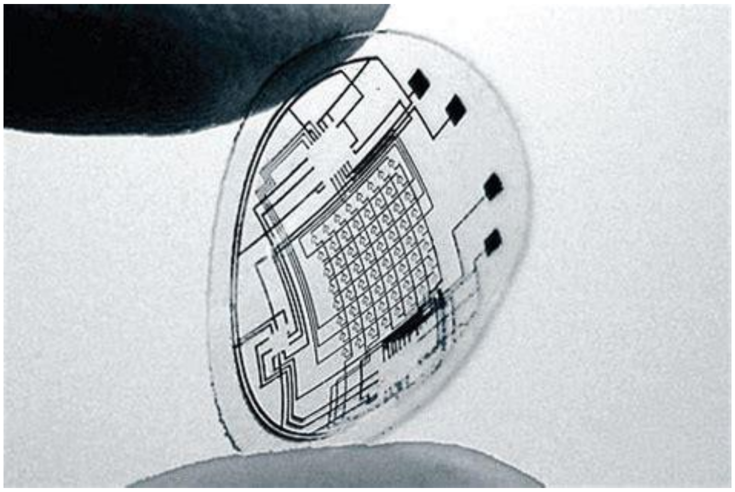
Rumor has it that Apple will release an AR technology headset or pair of glasses between 2020 and 2025, which they are currently patenting.

Vuzix Blade Commercial Edge

North Focals

Snap Spectacles 2.0

AR contact lenses are still in their infancy phase. Researched applications include domains such as gaming and health. Indeed, intelligent contact lenses could help certain types of sight deficiencies such as retinal AI detachment and make AR games seem more real than ever. The University of Washington is developing bionic contact lenses using AR technology which overlaps reality.



https://www.visiondirect.fr/blog/lentilles-de-contact-intelligentes/

https://www.wareable.com/ar/the-best-smartglasses-google-glass-and-the-rest

https://medium.com/mit-technology-review/an-apple-ar-headset-coming-in-2020-df8c1c928528

MR/xR

Merged/mixed reality, other than its gaming potential, is useful in areas such as design and engineering and is often put in the AR category. MR enables users to **interact** with virtual objects and overlay them in the real world. Designers could use a simple teapot and lay intricate designs over it and inspect it entirely without having to physically change the teapot and engineers could have the possibility of virtually creating objects, manipulating them and testing them without having to pay for any material. This means applications and software are being developed solely for MR use.

During the GDC, Unity will broach the subject of MR technology during its Keynote opening speech.

https://variety.com/2019/gaming/news/unity-gdc-19-1203129633/

Mixed Reality headsets are made in order to be compatible with the real world setting, which is where it differs from VR headsets, which completely closes off users from the real world.

Microsoft HoloLens 2

Microsoft revealed their HoloLens2 during the MCW, which combines Mixed Reality and cloud computing. The Hololens headset features eye tracking, 47 pixels per degree of sight (double up from the first generation), power-saving functions, depth sensors, and built-in AI "with semantic understanding." To go along with the HoloLens 2, Microsoft offers Dynamics 365, Remote Assistant, Layout and Guides. There is also partner software and support for the new Azure system. The HoloLens 2 costs $3500, while the software will be subscription-based, with Dynamics 365 Remote Assistant starting at $125 per month.

https://www.gamereactor.eu/news/735643/Microsoft+unveils+Hololens+2+Developer+Kit+and+Mixed+Reality/

Consoles

PlayStation 4

PlayStation 5

The fifth generation of Sony's PlayStation is set to arrive in 2021. According to Sony, this will be a next-gen console, the starter of the 9th generation of consoles. Rumored features include a patented smooth backward compatibility

Nintendo Switch.

It has been two years since Nintendo released the Nintendo Switch, the hybrid console, both stationary or portable. This year, rumors have started circulating in the Wall Street Journal that an updated version of the Switch would be released as early as this year.

https://www.businessinsider.com/nintendo-switch-2-rumors-2019-2

Controllers

Analog: New Wireless Sega Genesis Controllers From 8BitDo

As the world becomes more technologically advanced, some people want a reminder of what once was design-wise, combined with today’s high-speed and accuracy. This is why 8BitDo’s analog high-end Sega Genesis Controller is in the fad: the classic controller shape and buttons are respected, and the controller is wireless and can be used with Nintendo Switch or on PCs.

https://www.gamespot.com/articles/new-wireless-sega-genesis-controllers-from-8bitdo-/1100-6465275/

3DRudder Foot Motion Controller for PlayStation VR

PlayStation VR fans will love this innovative peripheral. While your hands work the controller, your feet rest on the 3DRudder. By shifting your weight around the circular board, you can control the movement of your virtual character. (Mark Myerson, 2019)

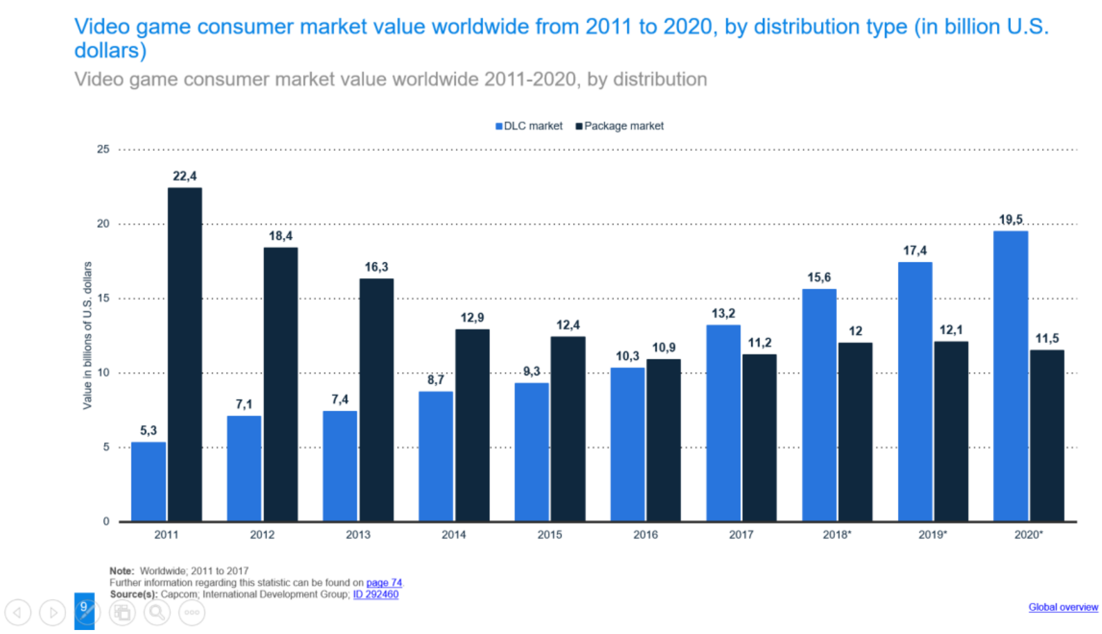
Package or DLC?

Before 2016, the Package, was more popular than DLC. At the time, optical drives were convenient as computer storage was limited and packages were useful. Most games would have an optical disc for their core game, with additional content in other discs. Packages are usually more expensive as they offer more content but also limited in. Packages are rarely, if ever, free.

Downloadable Content (DLC) has become the most distributed type sold in the U.S. since 2016. DC enables players to download certain extra components to the base game; they can be free but are usually available for as little as a microtransaction. DLC ranges from accessories to extra game levels. This is how most free game apps are able to generate revenue; the base game is F2P but content is limited. This will entice players to buy added content for a fuller experience. The rise in popularity of mobile games and online games partially explain the increased use of DLC compared to Packages.

Most if not all games which are still on the game now offer DLC or offer both package and DLC. For example, the EA “Sims” franchise. It is possible to buy the base game and add on to it as wished, or you can buy the base game as well as all extensions in a package. The package is usually interesting for hard-core gamers and long-time players of a particular game.

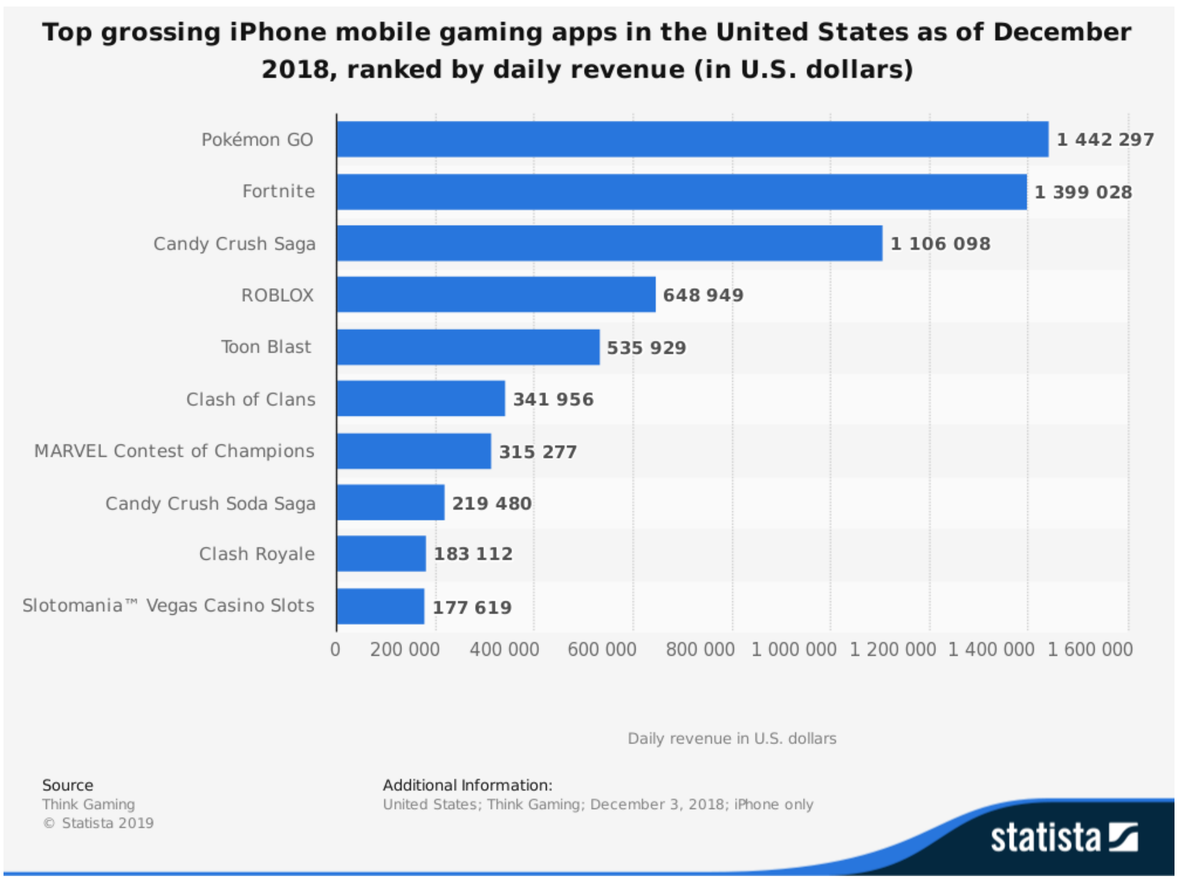
Some think DLC and microtransactions cause an inauthenticity problem in base games; some feel that base games are incomplete, sometimes even beta versions of a game, and that players are forced to pay more to have the full experience.

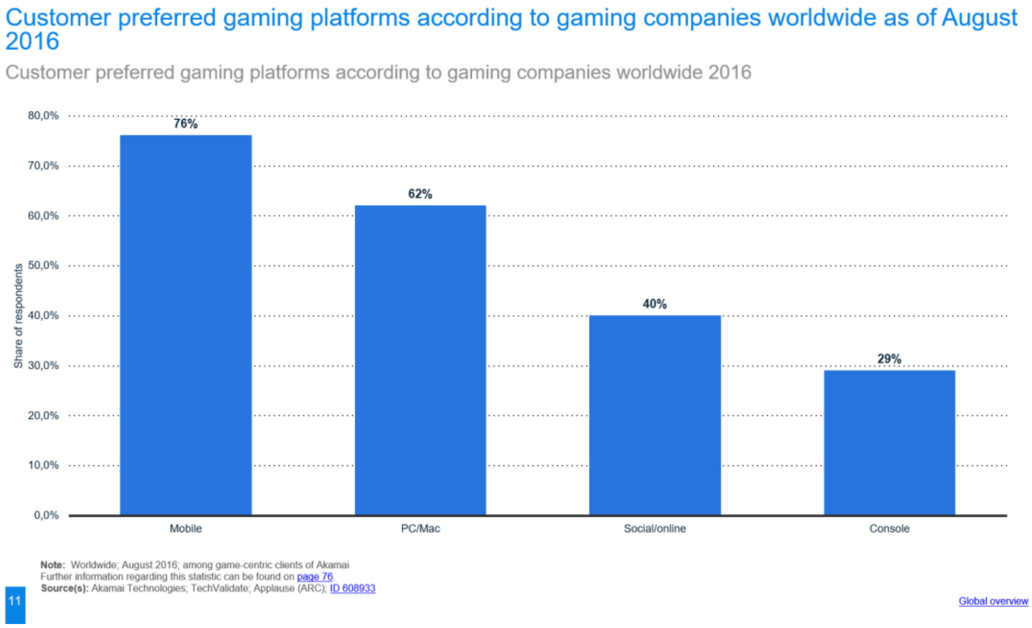


https://www.lifewire.com/death-of-the-computer-optical-drive-832403

Mobile games or PC?

Smartphones have become more sophisticated over the years, and their small processors more powerful. This translates into high-quality graphics, quicker processing and ultimately a better gaming experience, especially since mobile phones also benefit from advances in the gaming world. The Fortnite OS mobile game version came out in 2018 for Android and was an enormous success and Pokémon GO (AR game by Niantic), which first launched in 2016, remains extremely popular. Most importantly, the mobile platform is accessible to more people than the PC platform. This explains why mobile games earn more on the game market worldwide than on any other platform. More games are F2P on mobile phones, which is more attractive, especially for soft gamers or those that do not play often.

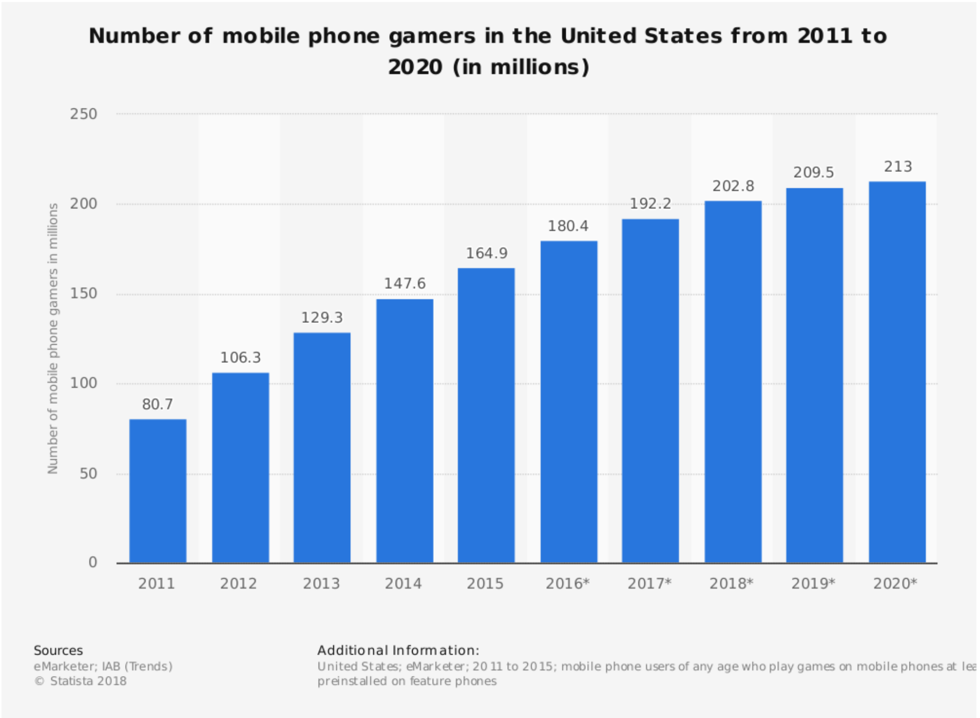




Frequent gamers or casual gamers?

Casual gamers have a bad reputation in the gaming world and aren't considered real gamers at all, because they are those who consider gaming as a light hobby and do not really research games or commit to finishing a game. But it would be remiss to write these players off; most casual gamers will prefer mobile games and with smartphone technology becoming more and more developed, the mobile game market has been booming.

http://www.vgchartz.com/article/256049/the-four-types-of-gamer/



Frequent gamers, or specialist and expert gamers, are those who take gaming very seriously and are often part of a gaming community and have a general interest in anything related to the gaming world: either they commit to a single gaming platform, or they are eager to test them all out. In principle, these are the players willing to pay extra or even subscribe to a monthly package to get the fullest experience possible in a game.

Free games or paying games?

Most mobile games are F2P to be visible to as many people as they can. F2P game developers typically make profit by advertising their sponsors on the game or an in-game store to buy extras or both.

Concerning paying games, or F2P games that offer extensions, we come back to the question of microtransactions. Microtransactions are in-game purchases which enhance the player's experience in the game, ranging from accessories, added funds, or loot boxes. Loot boxes are criticized: they could be considered a form of gambling, as they offer random prizes after purchase. In fact, Belgium has recently banned the use of loot boxes as they are considered in violation of gambling legislation. This has caused problems for games such as FIFA18, CSGO or Overwatch.

https://www.gamerevolution.com/news/495689-pes-2019-microtransactions-belgium

https://medium.com/fast-company/the-biggest-tech-trends-of-2019-according-to-top-experts-44b79687a420

Where Virtual meets Reality

Ecology

The IPCC's report on global warming is a warning bell: we must make efforts to slow down and eradicate global warming if we do not want to suffer dire consequences. This green perspective can be hard to reconcile with technology. Every year, we discard 55 million of tons in electronics in the U.S., per e-waste. (Josh Lepawsky, 2019)

Some games have decided to focus on the environment in one way or another. For example, in 2011, Fate of the World gave players the choice to influence the future of their virtual world, by focusing on climate or oil. Most of these games concentrate on building ecosystems or civilizations with other players, like Eco, which is accessible on Steam. Ecology in gaming is usually linked to educative games: the pitfall is it can easily go into lecturing territory and lose attractiveness for gamers.

Rebelle Productions' game studio has helped create the Walloon Region's ecological awareness online platform, which teaches children to be respectful of the environment with the help of fun and interactive games. They have also created games about animal wellness.

https://medicalxpress.com/news/2017-11-green-gaming-environment.html

Education

With the progress of all types of technology, new interactive ways of learning have been engineered, not only for children, but also for professionals, especially in the use of xR.

For example, the Tech Museum of Innovation in San José integrated AR technology in the Body World exposition, enhancing the overall experience of visitors who can see organs in movement and access additional information. They called this technology Iris: it is a custom AR system built on the Google Tango platform.

Games which have a general educative purpose to them are called Serious Games. Typing games are also a useful type of game for children starting to type as well as adults who want to improve their typing accuracy. Fishing Cactus has recently announced its next RPG game, Nanotale, where players combat and move by typing words, which should be available in 2019. Hellion Cat helps develop serious games as well as Fire Falcom (in a more technical way).

With eSports gaining more credibility, some schools and colleges have put classes up to form younger generations, forming the High Schools eSports League.

Health

https://medium.com/s/thenewnew/nintendos-new-games-are-hell-for-people-with-disabilities-8e9d6b2182e9

New technology is not accessible to all in ways few of us are able to comprehend: the manipulation and/or use of some consoles can be painful or impossible for those with joint pain or mobility difficulties. Motion-sensitive controllers like the Wii remote or the Nintendo Switch are the bane of those plagued by tremors, MR technology easily makes anyone feel motion sickness, particularly those with inner-ear conditions and trends in game development leaves little hope of controllers becoming easier to use for those who cannot operate motion control. But some companies have been paying attention to this deficiency and have tried to invent games which are more user-friendly. The addition of symbols in the color-swapping puzzler Hue make the game playable even for people who are color-blind. Fortnite helps people who have trouble hearing with an option that translates the sounds of footsteps and gunshots into visual indicators. Both PlayStation 4 and Xbox One, the two major rivals to the Nintendo Switch, let you change which buttons do what across the entire console. Microsoft's new Adaptive Controller for Xbox One and the PC. This equipment can clamp onto wheelchairs and hook up to all manner of accessible inputs like foot controllers, one-handed joysticks, and easy-to-press switches.

At the GDC, some conferences will be about these types of issues in gaming.

I CAN'T HEAR YOU: CONSIDERING DEAF GAMERS

Speaker: Karen Stevens (EA Sports)
Location: Room 202, South Hall
Pass Type: All Access, GDC Conference + Summits, GDC Conference, GDC Summits, Expo Plus, Expo, Audio Conference + Tutorial, Indie Games Summit
Topic: Advocacy
Format: Session

Another health issue is gaming addiction and game fatigue. Gaming addiction is rather self-explanatory. Gaming fatigue is caused by a person feeling overwhelmed when faced with the choice of technological gadgets.

GAME ADDICTION AND GOVERNMENT REGULATION ROUNDTABLE (PRESENTED BY IGDA)

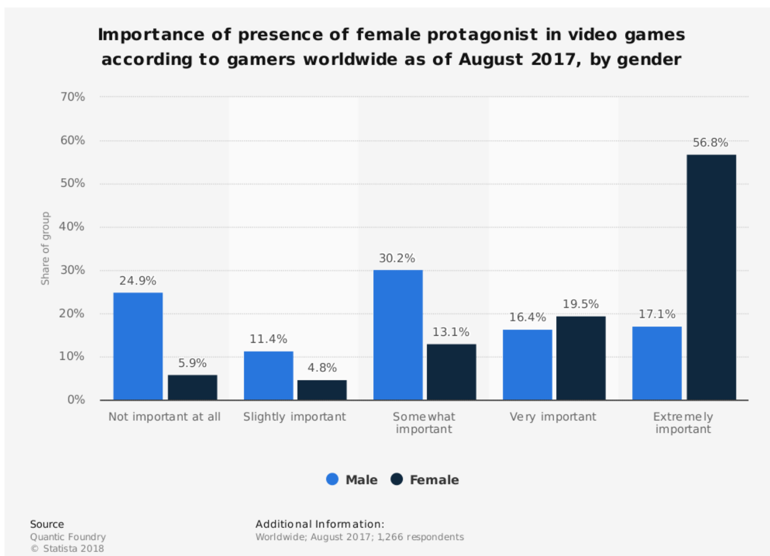
Speaker: Callen Shaw (Media Rez)
Location: Room 211, South Hall
Pass Type: All Access, GDC Conference + Summits, GDC Conference, GDC Summits, Expo Plus, Expo, Audio Conference + Tutorial, Indie Games Summit
Topic: Advocacy
Format: Roundtable

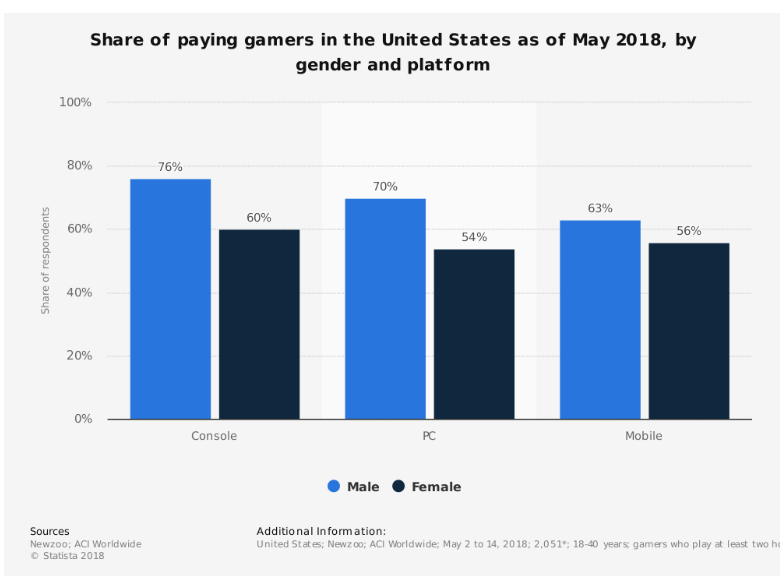
The Gender Question

Most people think the gaming world is mostly made up by men and for men. But the reality is not as black and white. Although more men play than women, it is not overwhelmingly so, coming to 55% male players for 45% female players in 2018 compared to 62% to 38% in 2006 in the U.S. (Entertainment Software Association, 2018)

This new proportion perfectly echoes the mounting desire for female protagonists in video games. Indeed, the majority both men and women attach some degree of importance to having female main characters in video games. The LGBTQ+ community is almost absent from any polls and statistics, even though they are part of the gaming community. Games which enable gender neutrality are rare as most games tend to exaggerate stereotypical features of female and male characters.

The fact that games are typically tailored to suit males could also be influenced by the fact male players are more likely to pay for content than female players, regardless of the type of platform.





This want for more equality in games does not completely represent the proportion of men and women in the gaming community. Indeed, the GDC State of the Game Industry Survey shows there is roughly an 80/20 proportion of male to female game developers from their respondents.

FHE surveyed 1,045 people, self-identified as gamers (which play more than 5 hours a week): in this case, it is roughly a 60/40 proportion.

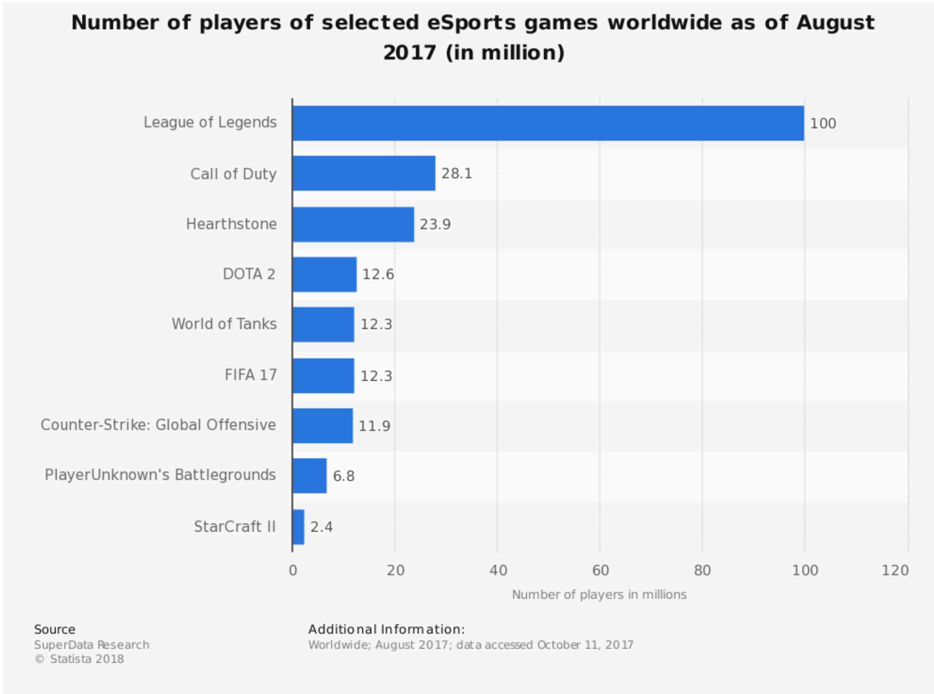
There is also the question of people who do not identify as male or female, which represent less than 1% of the gaming community.

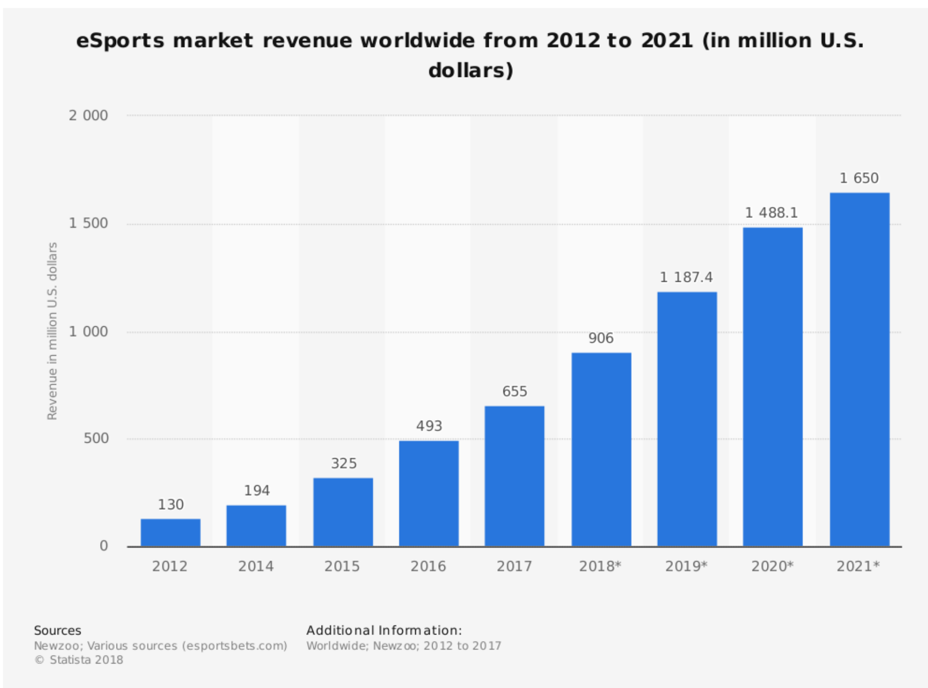
eSports

eSports are now a well-established part of the gaming world. eSports are slowly becoming accepted into the sporting category, as more and more competitions are taking place all over the world. In fact, the inclusion of eSports in the Olympic games is in talk for Paris 2024. The South Korean International eSports Federation campaigns for eSports to be recognized as a real sport (IeSF) and has organized ten yearly Official World Championships since 2009. Most eSports competitions take place in Asia, the biggest gaming market, but it has great potential in the U.S. and Europe, as gaming is becoming less of a niche market. eSports is currently on the trajectory to a total worth of more than $138 billion with a rapidly growing global audience of more than 380 million users. (Brian Curran, 2018)

Here are some of the worldwide eSports ongoing championships and competitions: Tekken World Tour, Neo Geo World Tour, League of Legends' Championship, FIFA, ESPN, …

Watching eSports competitions is as popular as competitive sports, such as football. The Super Bowl typically nets around 110 million unique viewers, according to statistics site Sports Media Watchs. The League World Championship, or Worlds, clocked in at 99.6 million viewers in 2018 for the final series, according to statistics provided directly by Riot Games, League’s developer. That means the difference between American football’s biggest event and League’s biggest event in 2018 was a mere 3.4 million people—103 million for the Super Bowl and 99.6 million for League’s Worlds. (Aaron Mickunas, 2019)





https://www.ie-sf.org/

http://www.sbwire.com/press-releases/esports-market-latest-trends-advancements-and-demand-2019-to-2022-1153723.htm

https://dotesports.com/league-of-legends/news/league-of-legends-vs-superbowl-viewer-numbers

What is the GDC?

From the GDC website:

The Game Developers Conference (GDC) is the world's largest professional game industry event.

GDC brings together 28,000 attendees to exchange ideas and shape the future of the industry with five days of education, inspiration, and networking at the Moscone Convention Center in San Francisco.

Attendees include programmers, artists, producers, game designers, audio professionals, business decision makers and others involved in the development of interactive games and immersive experiences.

The market-defining GDC Conference features 750 lectures, panels, tutorials and roundtable discussions on a comprehensive selection of game development and VR/AR topics taught by leading industry experts.

The GDC Expo showcases the latest game development tools and services from 550 leading technology companies such as Amazon, Google, Intel, Nvidia, Oculus, Sony, and Unreal Engine. Attendees can use GDC Connect business matchmaking to set up meetings and explore new partnerships and business opportunities.

GDC attendees can relax, play inventive and innovative games, and meet new people throughout the week at interactive spaces, themed areas for indie games, retro games, alternative controllers, and more. This year marked the debut of the GDC Film Festival, one of the first ever documentary & narrative film fests focused on the art and culture of video games.

GDC hosts two award ceremonies recognizing the creativity, artistry and technical genius of the finest developers and games. The Game Developers Choice Awards are the leading peer-based video game awards show celebrating the industry's top games and developers. The Independent Games Festival honor the most innovative and exemplary projects in indie game development.

GDC is organized by UBM, which in June 2018 combined with Informa PLC to become a leading B2B information services group and the largest B2B Events organizer in the world. To learn more and for the latest news and information, visit www.ubm.com and www.informa.com

History of GDC

The Game Developers Conference began as an informal gathering of 25 developers in the living room of a notable game designer. Initially focused on computer games, GDC has grown and diversified along with the game industry to include a variety of platforms including consoles, mobile & handheld devices, tablets, online, and computer games and is expanding into the emerging VR and AR space for games and entertainment. In 2016, GDC commemorated the 30th edition of the conference. From year to year, GDC continues to define market innovations and provide insight into the future of games.

www.gdconf.com

AGENDA

The GDC website created a matchmaking tool, in which GDC participants and booths can be categorized either by country, by alphabetical order, or even by key sectors in which the company ventures. This tool enables companies to focus on the companies whose activities correspond to what they are looking for.

The MeetToMatch company also offers to match companies for a fee.

https://gdc.meetingsprogramme.com/exhibitors

https://www.eventbrite.com/e/meettomatch-the-san-francisco-edition-2019-tickets-50190087904

A is for …

https://www.techopedia.com/

Acronym	English	Definition
AR	Augmented Reality	
API	In computer programming, an **application programming interface** (**API**)	A set of subroutine definitions, communication protocols, and tools for building software. In general terms, it is a set of clearly defined methods of communication among various components. A good API makes it easier to develop a computer program by providing all the building blocks, which are then put together by the programmer.
	Backward Compatibility	Backward compatibility is a property of a system, product, or technology that allows for interoperability with an older legacy system, or with input designed for such a system, especially in telecommunications and computing. Backward compatibility is sometimes also called downward compatibility.
	Blockchain	a digital database containing information (such as records of financial transactions) that can be simultaneously used and shared within a large decentralized, publicly accessible network
CPU	Central Processing Unit	the component of a computer system that performs the basic operations (such as processing data) of the system, that exchanges data with the system’s memory or peripherals, and that manages the system’s other components
	Deep learning	a collection of algorithms used in machine learning, used to model high-level abstractions in data through the use of model architectures, which are composed of multiple nonlinear transformations. It is part of a broad family of methods used for machine learning that are based on learning representations of data.

	Emergent Gameplay	Emergent gameplay is a game design term that refers to video game mechanics that change according to the player's actions. Emergent gameplay includes a number of relatively simple decisions that a player must make, the sum of which lead to more complex outcomes. Emergent gameplay can also be created by adding multiple players to the same game environment and having their individual actions impact the overall game narrative. Similarly, more complex artificial intelligence capable of impacting the storyline in unpredictable ways can be used in lieu of additional players.
F2P	Free-to-play, free-to-start,	"a business model for online games in which the game designers do not charge the user or player in order to join the game. Instead, they hope to bring in revenue from advertisements or in-game sales, such as payment for upgrades, special abilities, special items, and expansion packs."
Gaming dapps	Mobile Games Developers, Aggregators, Publishers and Portals	
	Gadget fatigue	describes a state that occurs when a user becomes confused, indecisive and overwhelmed when selecting technological or digital gadgets. The condition is usually precipitated by the release of several gadgets that share the same features and capabilities or are only marginally different from pre-existing product versions.
HMD	Head-mounted display	a computer display you wear on your head. Most HMDs are mounted in a helmet or a set of goggles. Ex: oculus rift
Indie Games	Independent video games	Games created without financial support from a publisher.
(I) OS	(iPhone) Operating System	Mobile operating system developed and/or adapted for usage on iPhones. For example, the touch screen tap instead of a computer double-click
	intranet	a network operating like the World Wide Web but having access restricted to a limited group of authorized users (such as employees of a company)
IP	Internet Protocol	the principal set (or communications protocol) of digital message formats and rules for exchanging messages between computers across a single network or a series of interconnected networks, using the Internet Protocol Suite

		(often referred to as TCP/IP). Messages are exchanged as datagrams, also known as data packets or just packets.
	Joystick	A joystick is an input device that can be used for controlling the movement of the cursor or a pointer in a computer device. The pointer/cursor movement is controlled by maneuvering a lever on the joystick. The input device is mostly used for gaming applications and, sometimes, in graphics applications. A joystick can also be helpful as an input device for people with movement disabilities.
	Kickstarter	Kickstarter is an American public-benefit corporation based in Brooklyn, New York, that maintains a global crowdfunding platform focused on creativity and merchandizing. The company's stated mission is to "help bring creative projects to life."
	Loot Boxes	In video games, a loot box is an in-game purchase consisting of a virtual container that awards players with items and modifications based on chance. Loot boxes are considered to be a type of microtransaction and criticized for being a disguised form of gambling.
MMORPG	Massively multiplayer online role-playing games	Ex: World of Warcraft
MOBA	Multiplayer online battle arena (MOBA), aka action real-time strategy	Ex: League of Legends, DOTA 2
MR	Mixed reality (MR	) anchors virtual objects to the real world and allows the user to interact with the virtual objects.
NaaS	Network as a service (NaaS)	iNetwork as a service consists of offering network functionality on a subscription basis, often through the cloud. Network as a service providers virtualize the network setup and give customers the ability to utilize a network that is not really set up in on-premise hardware. With network as a service, a lot of the network administration can also be outsourced, giving a company flexibility and freedom to manage a network with less in-house technical expertise.
ODD	Optical Disc Drive	DVD

P2P	Peer-to-peer	A peer-to-peer network is one in which two or more PCs share files and access to devices such as printers without requiring a separate server computer or server software.
QR	Quick Response Code	QR code is the trademark for a type of matrix barcode (or two-dimensional barcode) first designed in 1994 for the automotive industry in Japan.
RPG	Role Playing Game	
SaaS	Software as a service	Software as a service
Smart contract	self-executing contracts, blockchain contracts, or digital contracts	Smart contracts help you exchange money, property, shares, or anything of value in a transparent, conflict-free way while avoiding the services of a middleman. In this format, contracts could be converted to computer code, stored and replicated on the system and supervised by the network of computers that run the blockchain. This would also result in ledger feedback such as transferring money and receiving the product or service.
Twitch	Twitch	Twitch is a live streaming video platform owned by Twitch Interactive, a subsidiary of Amazon. Introduced in June 2011 as a spin-off of the general interest streaming platform, Justin.tv, the site primarily focuses on video games live streaming, including broadcasts of eSports competitions.
UGC	User generated Content	
VR	Virtual Reality	Virtual reality is the creation of a virtual environment presented to our senses in such a way that we experience it as if we were really there.
	Webinar	a live online educational presentation during which participating viewers can submit questions and comments
XR/MR	Cross reality/Mixed reality	Mixed reality is a type of hybrid system that involves both physical and virtual elements. Many experts describe mixed reality as the sliding scale between a fully physical environment with no virtual elements, and a completely virtual environment.
	A zombie network	is a network or collection of compromised computers or hosts that are connected to the Internet. A compromised computer becomes a zombie that is wirelessly controlled through standards-based networking protocols like HTTP and Internet Relay Chat (IRC).

Articles

1: Gaming platforms

The Most Important Gaming Platforms in 2019
by

Felix Richter,

Jan 25, 2019

For a video gaming platform to be successful, it is absolutely crucial to be backed by the developing community. After all, what good is the best hardware if the best games are made for other platforms? A survey conducted by UBM, the company behind the annual Game Developers Conference, shines a light on which platforms developers are currently considering the most important and which ones they are working on.

Unsurprisingly, the **PC remains the frontrunner with respect to developer support. 66 percent of the roughly 4,000 developers surveyed are currently working on a game that will be released on PCs.** Moreover, 60 percent of the respondents consider PCs one of the most interesting gaming platforms. Slightly less popular than PCs, the PlayStation 4 remains a top priority for developers as well. 38 percent of the respondents consider Sony's bestseller one of the most interesting platforms for 2019 and 31 percent are currently working on PlayStation games. Nintendo's popular new hybrid console**, the Switch, is also enjoying a lot of developer interest this year, beating even the aforementioned PlayStation 4**. However, probably due to its smaller installed base, **fewer developers are already working on games for the Switch.**

Looking beyond "traditional" platforms, i.e. PCs and consoles, **mobile devices are taken more and more seriously in terms of being fully fledged gaming devices. 38 percent of the respondents are currently working on mobile games and 33 percent consider it one of the most exciting platforms to work on in 2019.** In light of the huge installed base and the relatively low effort involved in making smartphone games, it's understandable that developers try to capitalize on that opportunity.

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2: Software vs Hardware

VIDEO GAME INDUSTRY

U.S. Video Game Sales Reach a New High score
by *Felix Richter*,Jan 23, 2019

The U.S. video game industry reached a new high score last year. According to data published by the Entertainment Software Industry on Tuesday, **video game revenue in the United States, including hardware, software, peripherals and subscriptions, amounted to $43.4 billion in 2018, up from $36.9 billion a year earlier.**

“2018 was another record-setting year for the U.S. video game industry,” Mat Piscatella, video games industry analyst at the NPD Group said, “whether it was playing on the go on a mobile device or at home on a PC or console, consumers of all ages and interests found compelling content that delighted in 2018.”

To put things in perspective, it’s worth comparing consumers expenses on video games to the money flowing into other entertainment sectors: box office revenue in the United States amounted to $11.9 billion in the United States last year, music industry revenue stood at $8.8 billion in 2017 and home entertainment spending, incl. DVD and Blu-ray sales, digital downloads and Netflix-style video streaming, amounted to $23.3 billion last year. Add to that the 220,000 jobs the video game industry supports in the U.S. and it becomes clearer than ever that video games are no mere child’s play.

Felix Richter

Data Journalist

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3: Blockchain Games

Blockchain Games: The Current State of Blockchain Gaming Technology

Brian Curran on August 27, 2018

The collision of blockchain technology and gaming holds great promise for the growth of both industries. Innovations in the budding field of blockchain gaming have pushed the limits of non-fungible assets and are poised to keep supplying novel developments in other areas like scalability.

Gamers were some of the early adopters of cryptocurrencies as they were already familiar with many in-game virtual currency models and saw the benefits of integrating cryptocurrency networks into the domain. The eSports industry is booming, and it is only a matter of time before its rise is meaningfully coupled with cryptocurrency payment systems and decentralized models.

While the fusion of gaming and blockchain shows some great potential, **there are still many hurdles** facing its development that need to be overcome for it to reach mainstream adoption.

The Current Landscape

When analyzing the current blockchain gaming landscape, it’s easiest to divide the field into the benefits that the integration of the two afford, and the current as well as future hurdles facing its adoption.

Benefits of Blockchain Gaming

Blockchains provide a **useful tool for gamers** for various reasons including **decentralized asset exchanges, verifiable scarcity of virtual objects and collectibles, fast and secure payment networks, and an ability for developers to properly monetize their creation**s. On the other hand, the search for solutions to providing sustainable and fun blockchain-based games has led to some **exciting innovations** in blockchain scalability and asset creation.

The most popular implementation of blockchain technology for gaming is **with non-fungible assets.** In gaming, these assets can be anything from game skins to virtual cards part of a specific game that are verifiably scarce. The **authenticity of individual virtual items is guaranteed using smart contract standards** such as the ERC-721 non-fungible token standard and the newer ERC-1155reference implementation.

A common problem that plagues gaming is **the inability to prove the provenance of specific virtual items, leading to fraud. Smart contracts allow users to be confident that they are receiving authentic items since they are tethered to the blockchain. Exchanging such in-game items has become a lucrative industry—estimated to be worth $50 billion**—that is expected to increase in size rapidly. Not only is the industry of in-game item exchanging highly lucrative for legacy video games such as Call of Duty and Counter-Strike, but for popular blockchain-based games like Cryptokitties that are actually built on a blockchain.

Facilitating the exchange of virtual in-game items and crypto collectibles has been the goal of some notable platforms including Wax, OpenSea, and Rare Bits. Functioning as decentralized exchanges for non-fungible assets, **these marketplaces give users the freedom to interact in a P2P manner that offers a reprieve from current centralized models**. Decentralized asset exchanges have the potential to eventually develop into bustling marketplaces in various industries from financial assets to physical assets tied to a blockchain.

One of the most apparent benefits of cryptocurrencies for gaming is their utility as fast and secure payment networks. The payment benefits of cryptocurrencies are especially useful for eSports, creating native in-game tokens, and driving seamless transactions on decentralized exchanges. Platforms like OpenSea allows users to pay for virtual collectibles using Ether, while other decentralized exchanges such as Wax enables users to pay in the native WAX token. Platforms like Enjin further allow developers to build fungible in-game virtual currencies and assets as part of their unique ecosystem. Finally**, Unikoin Gold is an eSports betting platform that allows users to participate in decentralized gambling using the native UKG token of the platform**.

Monetizing game creations properly has been an irritating problem for many game developers. **Through providing direct creator-to-consumer opportunity, blockchains enable game developers to build and distribute their products without the need for expensive intermediaries. This also affords them complete control over the digital rights management process**. Developers can further monetize games through unique in-game tokens or assets as part of the game's design and receive automated payments in cryptocurrencies by leveraging smart contracts.

The flip side of integrating blockchain and gaming is the innovation that advances in blockchain gaming solutions have produced for the broader blockchain industry. As mentioned earlier, the ERC-1155 reference implementation as a new standard for non-fungible assets is an important step in their development and was created by Enjin. Enjin also has produced a platform that provides SDKsfor various legacy game engines including Unity, Unreal, and Godot that incorporate smart contracts. Advances in scalability stemming from the search for scalable gaming solutions has come in the form of side channels with The Loom Network and their recently released SDK. As a layer 2 scaling solution for Ethereum, developers can use DPoS sidechains as part of the Loom offering for building scalable and sustainable dapps.

Obstacles Facing Blockchain Gaming

The **primary obstacle** facing the intersection of blockchain and gaming is very clear, **scalability**. The same problem that is facing the broader industry is **inhibiting the sustainability and actual usefulness of current blockchain-based games**.

DappRadar is an excellent tool for evaluating the activity of decentralized applications built on top of Ethereum and demonstrates a glaringly obvious **lack of users for blockchain games and decentralized asset exchanges.** While still in the early stages, the trend represents an overall lack of sustainability for blockchain-based games at the moment. Gas costs on Ethereum can be prohibitively high during times of network congestion, and many once hopeful gaming dapps have fallen into obscurity after launch.

Centralized games and gaming platforms have clear advantages over blockchain-based games right now. However, interesting hybrid solutions such as Ethereum-based Gods Unchained may provide some insights into how centralized and decentralized models can be combined. Gods Unchained runs on a centralized server and is powered by Unity, indistinguishable in gameplay from the majority of games today; however, the cards are non-fungible ERC-721 assets on the blockchain that can be traded in decentralized marketplaces.

Another problem resulting from scalability limitations is the current scope of games that can be created on a blockchain network. Slow network speed and lack of developer activity have led to many games being simple iterations of popular mobile games or collectible-focused games. This is by no means a long-term problem though as some fascinating projects such as Decentraland focus on creating three-dimensional worlds and games are beginning to shift towards more ambitious goals.

The problem of scalability will ultimately determine which platforms see the majority of interactive games built on them and which become a more non-fungible asset focused model. Regardless, scalability limitations are stifling the sustainability of the vast majority of blockchain games today.

The Booming eSports Market

The eSports market is turning heads as it is continuously growing at a pace that exceeds expectations. Dominated by major gaming players like Valve Corporation, Riot Games, and Activision Blizzard, **eSports is currently on the trajectory to a total worth of more than $138 billion with a rapidly growing global audience of more than 380 million users.**

Prize pools in eSports also dwarf other sports. For instance, the current DOTA 2 2018 Tournament prize pool is just under $25 million, more than double this years' Masters PGA Tour major championship purse of $11 million. Clearly, the opportunity in the eSports market for growth and integration with cryptocurrency networks is enormous.

Some early iterations of **the integration of blockchain and eSports are already underway with projects like Unikoin Gold**. Further implementations will potentially see a paradigm shift in the structure of the eSports corporate landscape. Corporations like Valve, Riot Games, and Activision Blizzard—in the context of comparing to other sports—effectively function as both the sport, the governing league, and the distributor of the content. For instance, Valve Corporation is the creator of the massively popular DOTA series (currently on DOTA 2), so in effect, Valve not only owns the game, but also creates the tournaments, and distributes the content. This is akin to an entity owning the sport of basketball, the NBA, and the media distribution rights.

While the model is clearly working and accelerating the growth of the industry, smaller developers are effectively locked out of competing against such organizations, and there is a substantially high barrier to entry in the market. Decentralizing the gaming development model will allow many developers and smaller companies to deliver their products direct-to-consumer and offer an entirely new generation of creative games, accessible to everyone.

Games like DOTA and Counter-Strike will undoubtedly remain extremely popular among gaming fans, but blockchain and cryptocurrency networks will create the opportunity for a new wave of choices that may eventually take market share from these eSports giants. Decentralized eSports team management and recruiting platforms like DreamTeam are an early example of this trend.

Conclusion

The intersection of blockchain technology, cryptocurrencies, and gaming is promising. Coupled with the meteoric rise of eSports and an opportunity for developers to properly monetize and participate in the gaming community, the intersection will assuredly facilitate a new gaming landscape.

The emergence of the blockchain gaming trend is not without its hurdles, however. Scalability issues are legitimately prohibiting the development of many games at this point and will need to be overcome before the industry can reach its potential. Once that hurdle is overcome, lookout for blockchain gaming.

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4: Gender

Gender in Gaming: Modern Gender Issues And Video Games

All about game developers' efforts to support gender equality.

Christian Dantes, Oct 17, 2016

Though the video game industry is primarily made up of male developers, the same can’t be said for the characters in the video games of today. It has become common practice for developers to include female side and main characters in the games that they create; in fact, there are probably as many female video game characters as there are male characters nowadays.

Just as common as the presence of female characters are arguments that claim certain games are sexist or misogynist. This has led to a litany of debate on the subject of whether or not gaming is respectful towards women.

I personally would like to think that on the whole, the people who work in the gaming industry care about gamers both male and female. Additionally, these creators must surely recognize that media and entertainment have very obvious ties to current social issues such as gender equality. To that end, I think video games have generally done very well with portraying women as favorably as they portray men.

Games of years past such as “Bioshock Infinite” and recent releases like “Rise of the Tomb Raider” steer clear of decisions that might sexualize or objectify their female characters, instead looking for ways to make them empowered and equal to male protagonists. In such games, gender becomes an afterthought, taking a backseat to character development and gameplay.

In spite of this focus away from appearance or gender clichés, however, the argument mentioned above still persists to this day. Sometimes, it may be at least somewhat warranted; nobody needs to have eye-candy characters just to move units, after all. But in many cases, especially today, the warrant seems to be missing.

Last year’s “Overwatch,” a multiplayer shooter game developed by Blizzard Entertainment, came under fire for an allegedly sexual emote (in gamer-speak, a taunt or win animation that a gamer’s chosen character can use) that the character Tracer had in the game.

The emote in question, which involved the character turning her back to the camera, was immediately perceived as objectification by many critics; those critics were met in turn with backlash from dedicated fans of Blizzard and its work. Ultimately, in a move that was probably for the best, Blizzard decided to remove the emote and create an entirely new animation for Tracer.

But was it for the best because Blizzard was wrong? I certainly don’t believe so.

The problem with the “Overwatch” debacle and the overarching problem with alleged sexism in video games is that the criticisms are often too aggressive or accusatory. Think of it this way: these critics are calling out game developers like the ones at Blizzard—people who live to entertain and create—for being disrespectful, distasteful, and disgusting regarding their treatment and view of women.

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It may sound like I'm exaggerating, but those are the connotations that "sexist" or "misogynist" carry; they are very harsh, very negative labels. We use the same terms for people who perpetuate and champion gender inequality or people who literally treat women as property.

I say that Blizzard did the right thing because their actions are a message that game companies want to listen to consumers; that they want to know what works and what doesn't. That they want to know how to make their products better for *everybody*, and that they are willing to be receptive and reflective.

And because they show an active desire to listen to the people they're selling video games to and use that as a guide for marketing and development, we should feel more obligated to give them the benefit of the doubt. It isn't fair to nitpick at the smallest details to conclude that companies like Blizzard are sexist.

Video games are a collective medium that is constantly changing. It adapts to the times—to changing people, worldviews, and ideals. In the context of female representation, I'd say that it's a medium that's adapting very well. Thanks to the open-mindedness and creativity of game developers, there's nowhere else to go but up for gender equality in games.

https://www.theodysseyonline.com/gender-gaming-modern-gender-issues-and-video-games

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5: Gender and Sexism

Are video games inherently sexist? Designers and game makers discuss

We take at look at the design and representation of female characters in video games and ask if they are falling behind the real world in terms of gender equality.

By **Alina Polianskaya** February 20, 2019 3:03 pm

Many would argue that for too long, the gaming world has been male-dominated, filled with gun battles, fast cars and macho characters. Female characters have often been designed as visions of male fantasies, as sweet, simpering sidekicks or as damsels in distress, should they exist at all. But as the real-world fights for better gender equality and an end to sexism, is the gaming world falling behind?

The representation of women in video games has long been a topic for debate: Testament to this, an exhibition at the Victoria and Albert Museum which will soon be moving up to the museum's Dundee counterpart, is currently shining a spotlight on the issue.
Over the past two years, **more than 40% of all game players in Great Britain have been reported to be women, across all platforms** combined including consoles, online and mobile apps, according to research commissioned by the Interactive Software Federation of Europe. Female game makers are also slowly making their mark on the industry, with **22% of game makers from around the world**

identifying as female, according to a survey by the International Game Developers Association conducted in **2015.**

As the demographics change, a shift does seem to be happening—but is it happening fast enough within video games themselves?

Stereotypes and clichés

The way female characters are designed and depicted has often been sexualised and derogatory, drawn with exaggerated figures and minimal clothing, or falling victim to harassment and violation in games such as Grand Theft Auto Five.
Even non-human characters are often hit with “girly” stereotypes; a recent redesign of Sheila, a female kangaroo in the new Spyro Reignited Trilogy game, gives the character a nipped-in waist, glamorous eyelashes and a new hairdo. This went on to spark a social media backlash with critics questioning why a cartoon kangaroo needed to look “sexy”.
But the look of Tomb Raider’s Lara Croft, a fictional female character who has been criticised extensively in the past for her scantily-clad demeanour, has started to **evolve in a more body-positive way.** Designed in the 1990s with unrealistic proportions, modern iterations of the character are finally beginning to be more representative of a real human, with the BBC poignantly noting that “the hotpants have gone and her breasts have shrunk”.

Leading roles

The number of female protagonists in games still lags behind the abundance of male ones. Many children in the late 1990s played Pokemon Red, Blue and Yellow on the Gameboy Colour, with gameplay centred around a male avatar. Now a remake of the game, Pokemon, Let’s Go Pikachu, has launched on the Nintendo Switch, sparking a wave of nostalgia by bringing shiny new graphics to the same storyline, and offers players the option to play as a girl character. Playable female characters are also available in other remakes of Pokemon games including Pokemon LeafGreen and FireRed.
Some would say things are improving and strong women characters do exist; one example is a survivor called Ellie in the apocalyptic game, The Last of Us, who is a secondary character to her brother in the original game but will be the main playable character in the upcoming sequel, The Last of Us Two.

Independent games offer more examples, such as the mother and daughter protagonists in Monument Valley Two, a game app designed by UsTwo, which explores the duo’s relationship as they travel through beautiful yet precarious mazes on a journey together.

We asked designers and others in the gaming world their thoughts about the representation of women in video games, whether they feel there is underlying sexism in the animated field—and whether they think this is changing.

“When addressing issues around sexism and sexualisation of women in games, it’s important to remember that AAA games—blockbuster, mass market games by major publishers, like Call of Duty or

Grand Theft Auto—that are often referenced in these conversations aren't actually the only games out there.

Nor should they represent the industry as a whole. **There's a vast body of work, mostly by independent creators, that does include positive, complex and interesting depictions of women—games by developers and designers such as Christine Love, Lea Schönfelder, Bahiyya Khan and Jenny Jiao Hsia,** for example. For people who are interested in supporting work by and about women that does not adhere to sexist stereotypes, then I'd recommend looking at games by those creators.

I do think video game culture has earned its reputation of having poor representation of women, but that is because of deeper cultural issues that plague all art. Video games, as a medium, aren't inherently sexist—it's the creators and the cultures they function in that are the problem.

Sexism needs to be addressed at a deeper level in our societies and cultures before we can see more positive representation of all minorities and women overall. One good way to promote this sort of cultural change is to support and signal boost work by women and minorities. It's easy for smaller creators who are doing progressive work to be forgotten in light of whatever news splash the big AAA games are making, so supporting their work is imperative if video games want to become a better and more inclusive space."

"For an apparently modern industry, much of gaming puts women and men into alarmingly traditional roles: powerful hunter-gatherer man, scantily-clad doe-eyed sexy woman. It's part of the retrograde projection of gender that's afflicting the music industry at the moment too. Does it matter? You bet it does! If we perpetuate distorted stereotypes through entertainment it has a fundamental impact on progress in the real world, especially on young people's aspirations and self-esteem.

Change is complicated by the fundamental differences between motivations for play: women look to complete, design and create new worlds, men to destroy and compete. So when a survival game has a strong female character, she's still operating in a male gaming world.

One of our team trained as a game designer—just three of his fellow students were female, of whom only one entered the industry. Clearly the industry is aware of the need for progression in all respects as it makes commercial sense. Diminishing the impact of gender in games for men and women alike is a good step, and some games for kids are taking this on board—**Fortnite doesn't allowing gender selection,** for example. Also, there is no doubt that more women in the industry would lead to more realistic depiction of both sexes in products."

"Growing up in the 1990s, it was the norm to have the single option of playing as a super virile male character. Games were designed and marketed by males for males, so female characters often took on the forms of the core audience's fantasies. Today, there's a much larger female gaming community, one that's expected to grow further, as well as a stronger presence of female game makers.

With that in mind, **we're starting to see a shift—a subtle one, but a shift none the less**—in how female characters are represented. Red Dead Redemption Two's Sadie Adler, for example, is a total badass that brings a breath of fresh air to the game with her wit and independence. That said, there's still a long way to go.

When it comes to fair female representation and inclusion, it's a classic case of design being the problem but also the solution. With an evolving market demographic, and technology opening the door to even more detailed designs, now feels like the time for game makers to think much more deeply about what they want to represent and express with each character before they bring them to life."

"There is a lack of diversity in game characters and female leads, and has been since I started making games and playing them as a kid in the 1980s. There were a few examples: Samus Aran in Metroid, later Faith in Mirrors Edge, and today Aloy from Horizon Zero Dawn and Senua in Hellblade are my favourites.

Still I can count these on both hands and compared to male characters, the gap is huge. **There are few LGBTQ+ characters in games, too. Art house and indie games are usually more diverse and investigate subjects like sexism.** One cool example is Nicki Homaj where the player wears a pink wig and high heels with embedded sensors and responds to sexist comments by moving controllers.

It is getting better, both in games and at the studios making them. Sex and violence are part of life and in the stories that people share and interact with, but tacky, sexist scenes just makes me lose interest and respect for the developers. Diversity is about quality.

I feel no difference as a gamer playing muscular male Kratos in God of War or my customised, old and wise female character in Bloodborne. I play to relax, get into a story world and feel a flow in movement and slashing of monsters, because everything is well-designed. **As a game developer, diversity and inclusion is always at the core, and that work never ends if we want to keep up quality in our industry."**

https://www.designweek.co.uk/issues/18-24-february-2019/are-video-games-inherently-sexist-designers-and-game-makers-share-their-views/

6: Esports in U.S. Schools

Going big: Creating Ohio State's esports program

By Jake Rahe: rahe.21@osu.edu February 11, 2019 1 Comment

An illustration of the future gaming room for students to come play with friends and club activities in Lincoln Tower. Credit: Courtesy of Davis Wince Architecture

Lori Baldwin and Becky Bradshaw had a problem.

The Ohio State Departments of Athletics and Business Advancement had noticed **growing popularity of esports across the country and the university's campus communities that were passionate and involved with video games**. It was pushing Baldwin and Bradshaw, director and program manager of affinity and strategic relationships, respectively, to figure out a way to enhance and support esports on campus.

They began studying other universities with large esports programs, talking to esports industry leaders and gauging interest from professors and researchers on campus.

When their research was done, the duo came back and informed the administration that **the esports industry was large and rapidly growing, but they shouldn't settle for only professional and collegiate competition**. This led Ohio State to develop an academic major, create competitive teams and recruit researchers at the university for a first-of-its-kind esports program in October.

"When you think about a major in game design and esports, well, what does that mean? Who is the end student for this?" Deborah Grzybowski, co-director of the new game studies and esports curriculum development, said. "What you are going to be assessed on, and what you are going to learn when you finish taking this course? Those are the things we have to write, and they have to be measurable."

A team of 30 faculty members from five colleges—Arts and Sciences, Business, Education and Human Ecology, Medicine and Engineering—came together in May to answer these questions about the academic portion of the program.

They decided on core classes that all students in the major would take, along with three branching specializations: the making-it track, the managing-it track and the using-it track.

"The students, no matter what track they are on, need to create a portfolio of their work," she said. "We are integrating into this program a lot of opportunities to create games and work together as teams."

Brandon Smith, esports director and enterprise project lead, said Ohio State has been doing more to connect the classroom and co-curricular experiences, starting with the construction of a state-of-the-art arena in Lincoln Tower.

The arena at Lincoln will be filled with more than 80 seats accompanied with computer and virtual reality consoles that will be open not only to the esports team for practice, but also to the student body for open gaming. The arena will also include a broadcast booth for students interested in doing commentary for competitions.

With video games being a mostly solitary activity, even when playing with friends online, Smith said this is an opportunity to get more students involved.

“This is a chance for these students to interact in a space that is university-managed, and they can get a chance to physically see each other while they are gaming together,” Smith said. “This is a chance for us to see another set of students that we might not see outside of the classroom.”

The teams will compete in a new league created by the Electronic Gaming Federation with other universities from Power 5 conferences—the Pac-12, SEC, Big Ten, ACC and Big 12—but team members and the exact games have not been determined.

For these esport student-athletes, not much is known about the athletic skills and long-term effects gaming has on an individual, Dr. James Onate, co-director of the Sports Medicine Movement Analysis and Performance Program at the Ohio State Wexner Medical Center, said.

“We are trying to look at things from a performance and health standpoint,” Onate said. “It is no different from us looking at stroke survivors or football players. How do we help them do what they are trying to do at the highest level for as long as possible?”

There are people who do not think of esports as a sport, but Onate believes his research will show a lot of similarities with athletes in other sports.

Anyone can play games, but anyone can play sports too, Onate said. **Playing at the highest level is different**. He said there are plenty of athletes who can throw a ball 60 yards in the air, but not many who can do it “accurately with people coming after them in front of 100,000 people.”

“I think that same thing in some of our elite gamers,” Onate said. “They have got skills, and when they start playing in competition, they are able to slow the game down, process it and handle stress at a high level.”

Even though esport athletes will be a large part of the research, it will not just focus on people at the highest level, he said.

“[Our research] would be running the gamut. Everything from looking to the highest level to looking at the incoming freshman who games a little bit,” Onate said. “We want everything from the physiological standpoint, psychological standpoint and the sociological standpoint.”

In the end, Grzybowski said Baldwin and Bradshaw were right. She believes that when you do something at Ohio State, you “go big or go home.”

“Ohio State is the ideal place because we can bring together the research side of things, the student life and competitive side of things and the academics,” Grzybowski said. “We have all three, and our administration are all on board and supportive of this effort.”

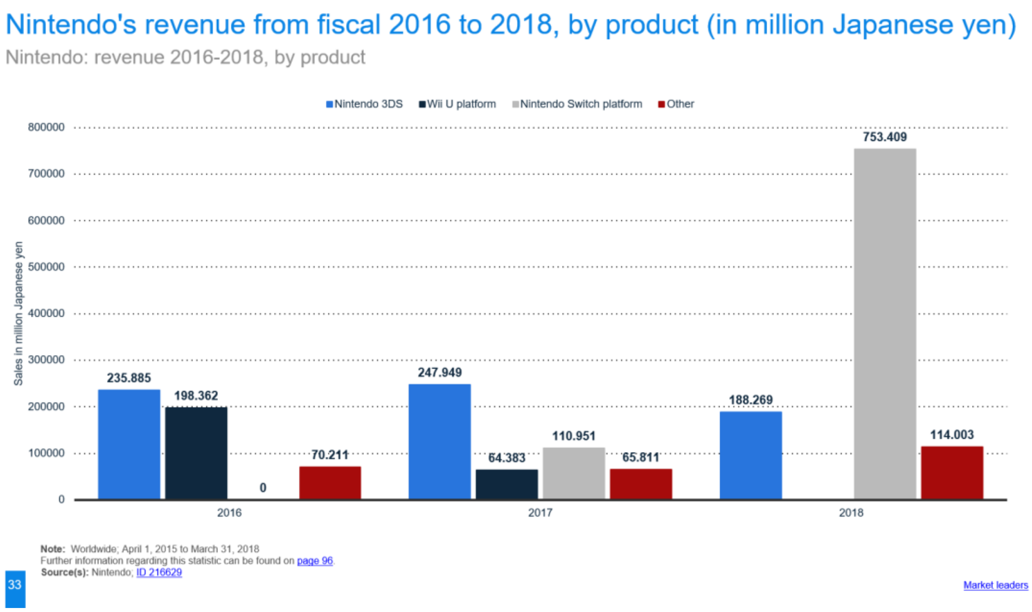
https://www.thelantern.com/2019/02/going-big-creating-ohio-states-esports-program/comment-page-1/

State of the Game industry

Gaming industry

With the release of Nintendo Switch in 2018, their activities are booming. The State of the Gaming industry survey by the GDC also demonstrated that developers are concentrating on creating games for Switch.

On February 4th, EA games released "Apex Legends", which boomed on the NYSE, going up from 7,84% to 33,8% stock performance in less than a week.



https://www.marketwatch.com/story/electronics-art-stock-pops-after-detailing-early-apex-legends-popularity-2019-02-11

Epic games released Fortnite in 2017 online and on android then IOS in 2018 which was an enormous success.

Summary of the State of the Industry

Game Developers Conference Releases 2019 State of the Industry Survey, Showing Nearly Half of Respondents Supporting Unionization

Annual Survey of Nearly 4,000 Game Industry Professionals Indicates that A Majority Believe Steam No Longer Justifies Its Revenue Share

January 24, 2019 12:00 ET | **Source:** GDC

SAN FRANCISCO, Jan. 24, 2019 (GLOBE NEWSWIRE)—The 2019 Game Developers Conference (GDC) has released the results of the seventh annual State of the Industry Survey, revealing trends in the game industry ahead of GDC 2019 in March.

The survey compiles responses from nearly 4,000 game developers, and reflects that nearly half of game developers support game industry unionization, as well as uncertainty around Steam's revenue-sharing model, and insights into the amount of time developers have spent working overtime hours in so-called "crunch."

The State of the Industry Survey is the seventh entry in the ongoing series of yearly reports and serves as a snapshot of the game industry, illustrating industry trends ahead of GDC 2019. Organized by UBM, GDC 2019 takes place March 18–22 at the Moscone Convention Center in San Francisco, California.

Nearly half of game industry professionals think game industry workers should unionize

Unionization is a hot topic in the game industry these days, and nearly half of the game industry professionals surveyed think it's a good idea. When asked whether they thought game industry workers should unionize, 47 percent said yes. 26 percent said maybe, 16 percent said no, and 11 percent said they didn't know.

However, when asked whether they think video game workers actually will unionize, only 21 percent said yes. The largest share (39 percent) gave an uncertain "maybe." 24 percent of respondents said they don't think it will happen, and 15 percent said that they don't know.

"It is critical that people who work in games are able to maintain a healthy lifestyle, live normal lives, and be able to enjoy a high quality of life that will work well for their spouses and families," wrote one respondent.

But: "There is too much supply: too many people want into the industry," claimed another. "Those who unionize will be shoved out of the way as companies hire those with fewer demands."

Steam is the storefront to beat on PC, but some devs thrive on smaller competitors

Given how many notable new game storefronts debuted in 2018 (such as the Epic Games Store and Discord Store), this year, survey respondents had the option to disclose which PC/Mac game storefronts they sell their games on, and what percentage of their platform sales came from each.

As expected, the most popular answer was Steam, with roughly 47 percent of those who responded to this question saying that they sell games on Valve's storefront.

Of the respondents who said they sell their games on Steam, the majority (54 percent) say Steam accounts for 75–100 percent of their sales revenue—and another 17 percent say it makes up 50–74 percent of their total revenue. Conversely, GOG, Humble, and Discord each accounted for less than 10 percent of revenues earned by a notable majority of the respondents who sell games there.

Interestingly, while indie-centric store Itch had a similar ratio (52 percent of devs who use it say it generates less than 10 percent of their revenues), it also had a surprisingly high number of respondents (28 percent) who said Itch accounts for 75–100 percent of their earnings. This shows that Itch's open approach has likely attracted smaller indies who sell exclusively on it.

Most game makers aren't sure Steam still justifies its 30 percent cut

In light of how competition is heating up for PC games marketplaces, the Survey also asked respondents whether they felt that Steam -- in its current form -- justifies a 30 percent cut of their game's revenue, which it currently takes.

Only 6 percent said yes, and 17 percent said maybe. The rest either said no or weren't sure, with the largest share (32 percent) saying Steam currently does not justify Valve's revenue share. 27 percent said such a large cut probably isn't justified, and 17 percent said they just didn't know.

"Take less revenue from sales and curate their store better for visibility for real games," is what one respondent wrote when we asked what features respondents felt Steam could add to better serve developers.

"Better support for amateur, hobbyist, and independent creators," wrote another. "More fostering of things like game jams and actual development communities to be created on the platform."

Nearly half of game makers work over 40 hours a week on games

To get a sense of the of the current labor conditions in the game industry, the State of the Industry Survey incorporate questions asking game developers–from corporate to indie - to share their average work hours in a week in the past twelve months.

Including all respondents, the results look fairly balanced, since half of respondents (44 percent) say they spend more than 40 hours a week working on games, and 56 percent said they worked 40 hours or less. The most common work week proved to be 36–40 hours per week, with 24 percent of respondents saying that was their average.

21 percent of respondents said they worked on games 41–45 hours per week on average and 17 percent said they averaged 0–20 hours per week on games (with a number of these likely being part-time or hobbyist workers.) However, 3 percent of respondents said they average over 60 hours of work per week on games, and 5 percent said they average 51–60 hours.

The Survey also asked about maximum hours per week worked during a single week in the last 12 months. While the largest response was 51–60 hours in a single week, responses ranged as high as more than 110 hours in a week (1.4 percent), with a small spike at 76–80 hours in a week (6 percent), suggesting that deadline-related crunch can go far beyond normal working hours.

With new consoles rumored, some devs are making games for unannounced platforms

With the current generation of now several years into their cycle, the 2019 survey now incorporates questions asking respondents whether or not they're developing their next game for any upcoming, unannounced platforms.

Predictably, very few (under a hundred, or less than 2 percent of) respondents said their next game is being designed exclusively for an unannounced platform. 16 percent said their next game is being developed for both existing and upcoming, unannounced platforms and the largest share (46 percent) said their next game is only coming to existing platforms. 36% said they didn't know at this time.

https://globenewswire.com/news-release/2019/01/24/1705090/0/en/Game-Developers-Conference-Releases-2019-State-of-the-Industry-Survey-Showing-Nearly-Half-of-Respondents-Supporting-Unionization.html

STATE OF THE GAME INDUSTRY 2019

Presented by:

GDC

March 18–22, 2019
San Francisco

The Game Developers Conference has surveyed nearly 4,000 game developers as part of the seventh annual State of the Industry Survey, which provides a snapshot of the game industry and highlights industry trends ahead of GDC 2019 in March.

Significant trends revealed by the survey results include that nearly half of game makers support unionization in the game industry, a majority think Steam no longer earns its slice of devs' revenues, and roughly half work over 40 hours a week on games.

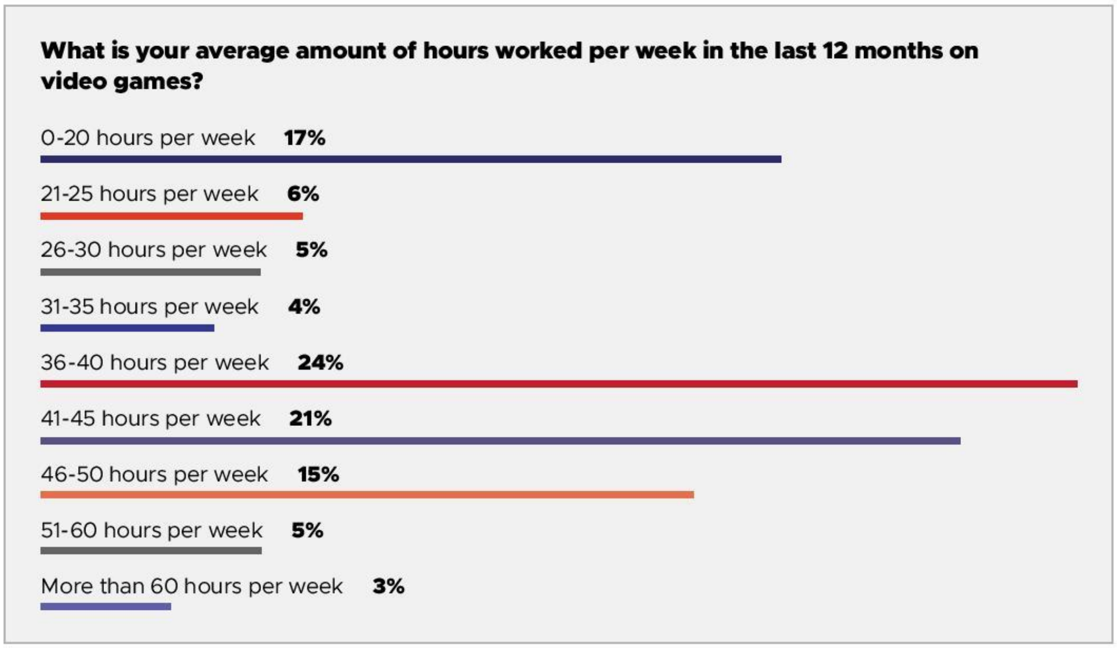
The full report also offers intriguing insight into how game industry professionals feel about the Switch and other consoles, the state of AR/VR, and the ever-present challenge of getting your game in front of the people who will enjoy it most.

The 2019 State of the Industry Survey is the seventh in an ongoing series of yearly reports that offer insight into the shape of the industry as a prelude to GDC in San Francisco. Organized by Informa Tech, GDC 2019 will take place this year March 18th through the 22nd at the Moscone Convention Center in San Francisco, California.

Nearly half of game makers work over 40 hours a week on games

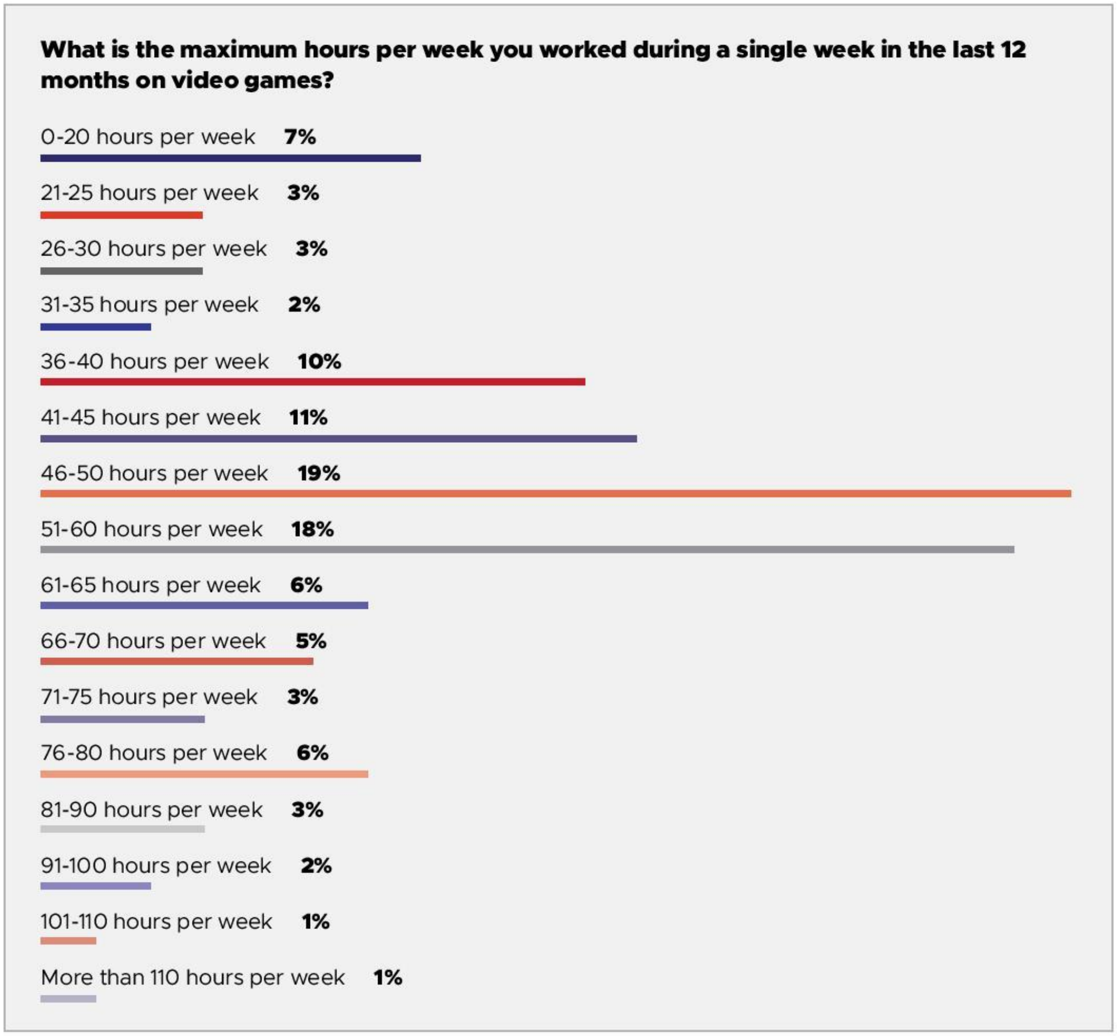
Since there's been so much public discussion about labor conditions in the game industry, we thought it was a good idea to ask respondents to tell us what their average hours worked in a week and maximum hours worked in a week were over the past twelve months.

Nearly half of respondents (44 percent) say they spend more than 40 hours a week, on average, working on games. The most common workweek proved to be 36-40 hours per week, with 24 percent of respondents saying that was their average. 21 percent of respondents said they worked on games 41-45 hours per week on average and 17 percent said they averaged 0-20 hours per week on games.



Notably, 3 percent of respondents said they average over 60 hours of work per week on games, and 5 percent said they average 51-60 hours.

When it came to talking about their maximum overtime, the largest share of respondents (19 percent) said 46-50 hours was the most they'd worked on games in a single week during the past twelve months. 18 percent said 51-60 hours was the most they'd worked on games in a single week (though note this answer encompasses 10 hours, rather than 5, and will thus attract more responses), and 11 percent said 41-45 hours.



However, we saw that at least some respondents claimed to have worked as much as a hundred-hour week in the past twelve months. 2 percent said they'd worked at least 91-100 hours in one week, 1 percent said they'd hit 101-110, and another 1 percent (or almost 40 people) said they'd worked more than 110 hours in a week on games within the past year.

“Self-pressure” was the most common reason game makers gave for working overtime

We also gave respondents the option of telling us the reason(s) why they thought they’d worked those maximums, and what their general studio size (small, medium, large) was when it happened.

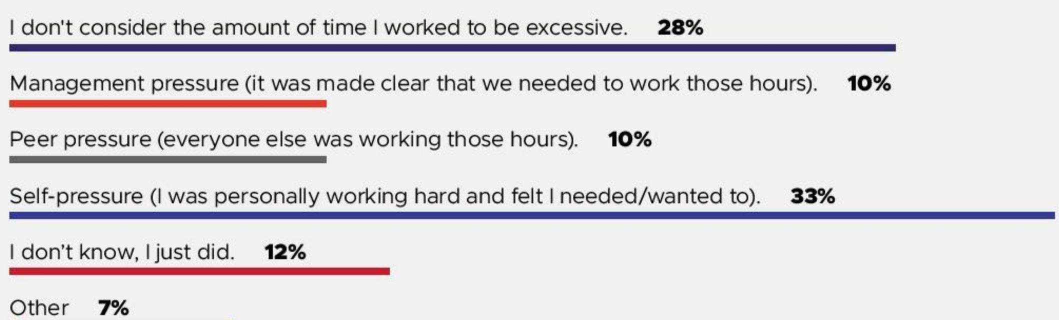
Respondents could choose multiple reasons and the most popular answer, given by 69 percent of respondents, was that it was at least partially self-pressure -- personally putting in extra work because the respondents felt they wanted or needed to. More than half of those who gave this answer worked at small outfits of 10 people or less, while a third worked at a studio of more than 30 people.

The second most popular response, given by 59 percent of respondents, was that they don’t feel the number of hours worked to be excessive. Here again, more than half of those who said this worked alone or in small groups, while a third worked on large teams.

The third most popular proved to be management pressure, with 26 percent of respondents saying they’d crunched because it was made clear by someone above them that they needed to work those hours. A disproportionately large number of them (39 percent) said they work at large companies of 30+ people, while 42 percent said they work at small companies of ten or less.

We observe a similar pattern if we zoom in on the data and only look at the responses of one subset of respondents. If we look at just the responses from those who say they work at small studios (10 people or less), we again see the most popular answer is "self-pressure", followed by "I don't consider the hours excessive," though "I don't know, I just did" beat out "management pressure" to take third place.

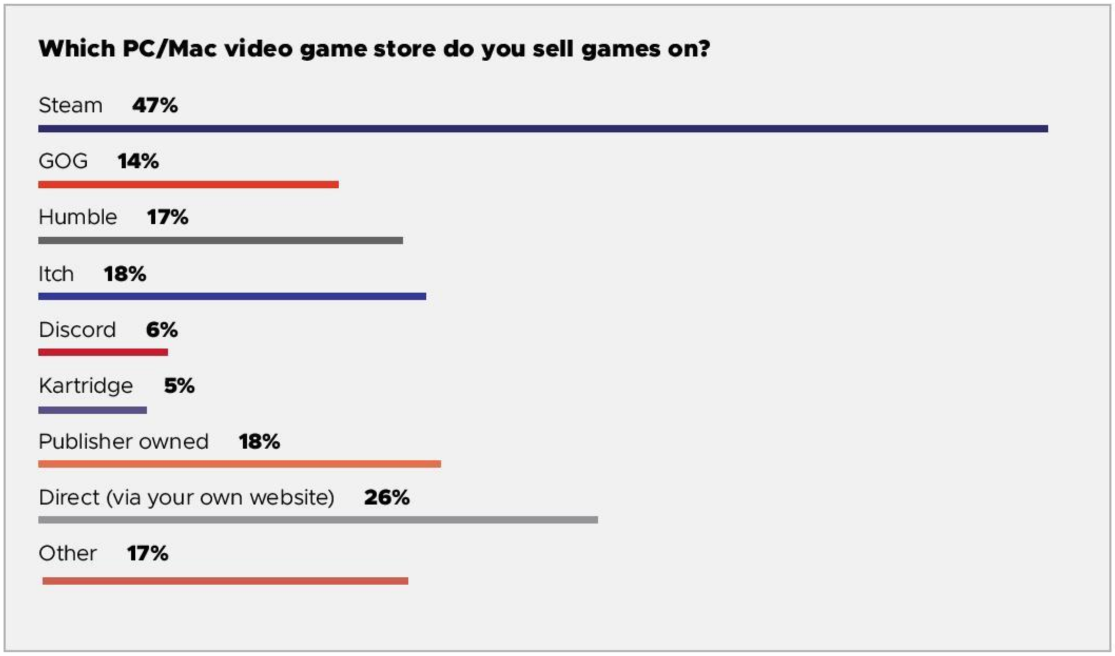
What were the reasons you believe caused you to work those maximum number of hours per week?



We also note that while “I don’t know, I just did” was a relatively uncommon answer to this question (given by just 20 percent of respondents), the folks that did give it were disproportionately indie, with 65 percent of those who gave this answer identifying as working at a studio of 10 people or less.

Steam is the storefront to beat on PC, but some devs thrive on smaller competitors

Given how many notable new game storefronts debuted in 2018 (such as the Epic Games Store and Discord Store), we gave survey respondents the option to tell us which PC/Mac game storefronts they sell their games on, and what percentage of their sales came from each.



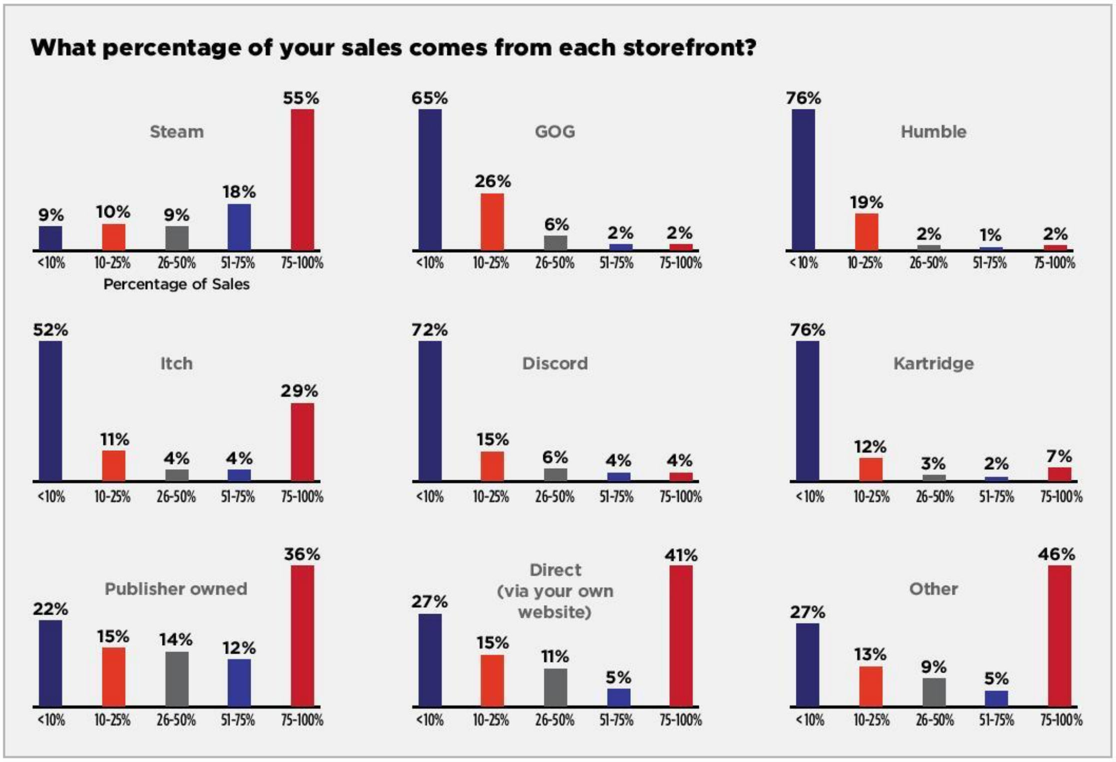
As you might expect, the most popular answer was Steam, with roughly 47 percent of those who responded saying they sell games on Valve's storefront.

Selling directly to customers (via your own website, for example) was the second most popular answer with 26 percent, followed by Itch and publisher-owned storefronts (like Electronic Arts' Origin or Battle.net) with 18 percent.

Of the respondents who said they sell their games on Steam, the majority (55 percent) say Steam accounts for 75-100 percent of their sales revenue. There's a similar slant among the devs who said they sell their games direct, with the largest share (41 percent) saying direct sales make up 75-100 percent of their sales.

Among the much smaller number of respondents who sell their games on publisher-owned storefronts, 36 percent said such storefronts generate 75-100 percent of their revenues. More than half (51 percent) said publisher-owned storefronts generate 50 percent or less of their earnings.

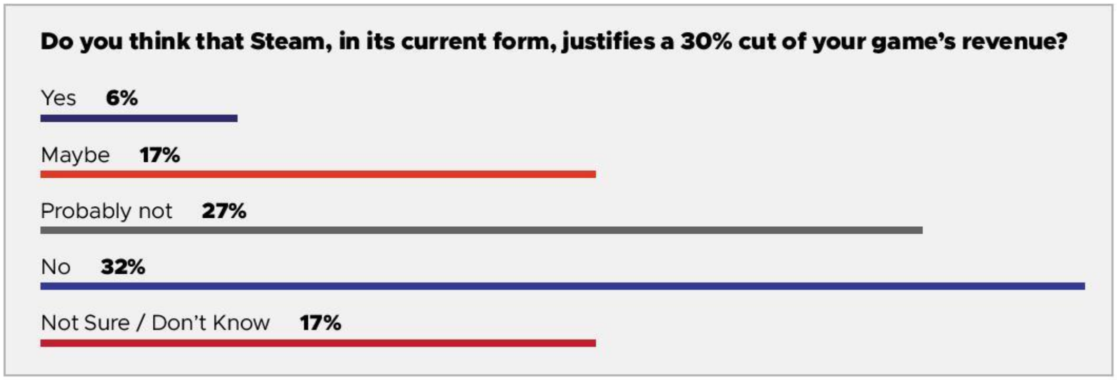
The same was true of GOG, Humble, and Discord, each of which accounted for less than 10 percent of revenues earned by the majority of the (few) respondents who sell games there.



While Itch had a similar ratio (52 percent of devs who use it say it generates less than 10 percent of their revenues), it also had a surprisingly high number of respondents (29 percent) who said Itch accounts for 75-100 percent of their earnings. This suggests Itch is doing something to cultivate a specific audience uniquely accessible to certain devs.

Most game makers aren’t sure Steam still justifies its 30 percent cut

In light of how much competition is heating up on the games marketplace front, we also asked respondents whether they felt that Steam -- in its current form -- justifies a 30 percent cut of your game’s revenue.



Only 6 percent said yes, and 17 percent said maybe. The rest either said no or weren’t sure, with the largest share (32 percent) saying Steam currently does not justify Valve’s 30 percent take. 27 percent said such a large cut probably isn’t justified, and 17 percent said they just didn’t know.

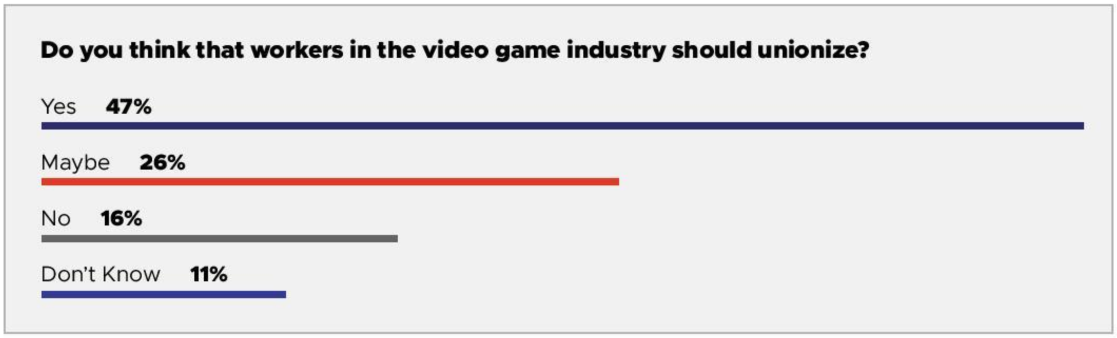
“Take less revenue from sales and curate their store better for visibility for real games,” is what one respondent wrote when we asked what features respondents felt Steam could add to better serve developers.

“Better support for amateur, hobbyist, and independent creators,” wrote another. “More fostering of things like game jams and actual development communities to be created on the platform.”

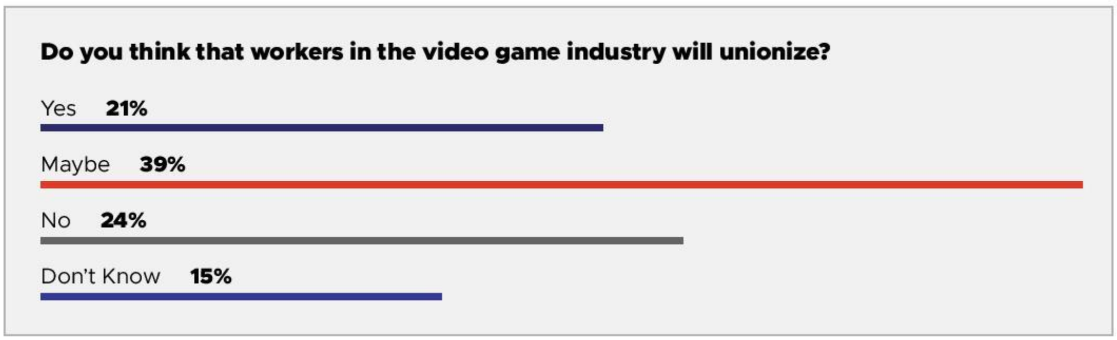
“They need to have visibility for low-budget games,” opined one respondent. “They need to fix the broken troll review system. They need to only charge 5 percent for games that are simply hosted with achievements and make less than $10,000 per month. They need to give visibility to games that are updated to give a reason to update your game as no one sees updates now so there is little point in doing them.”

Nearly half of game industry professionals think game industry workers should unionize

Unionization is a hot topic in the game industry these days, and nearly half of the game industry professionals we surveyed think it’s a good idea. When we asked whether they thought game industry workers should unionize, 47 percent said yes. 26 percent said maybe, 16 percent said no, and 11 percent said they didn’t know.



When asked whether they think video game workers actually will unionize, the largest share (39 percent) gave an uncertain "maybe." 24 percent of respondents said they don't think game workers will unionize; just 21 percent said yes they will unionize, and 15 percent said they don't know.



Given room to write in explanations of their views, one respondent suggested that "companies will just do what Walmart does when they vote in a union: they close the Walmart/game studio and open a new one a mile down the road across the city limits."

"It is critical that people who work in games are able to maintain a healthy lifestyle, live normal lives, and be able to enjoy a high quality of life that will work well for their spouses and families," wrote another respondent. "People who work in games should not have to work an unhealthy number of hours and be subjected to poor working conditions just because someone up the chain of command can't schedule an appropriate release date or because they need to show their 'passion.' Poor decisions made by those who wield power should NOT be the reason why game workers are having to look for new jobs to replace the ones that just went up in smoke."

"There is too much supply: too many people want into the industry," added another. "Those who unionize will be shoved out of the way as companies hire those with fewer demands."

> *"When one executive can get a $20 million bonus in exchange for crunching hundreds of people, shipping before the game is ready, then laying off those people, the industry is ripe for self-correction."*

"Over the decades I've seen crunch turn from a 'worst case' part of innovating into an expected part of game development," said another. "As a manager and owner, I see no pressure from studio heads or publishers in AAA to change this. When one executive can get a $20 million bonus in exchange for crunching hundreds of people, shipping before the game is ready, then laying off those people, the industry is ripe for self-correction. I would welcome our employees unionizing in the current environment."

European and North American devs are still the majority

When asked which region of the world they reside in, a majority of survey respondents said either North America or Europe. This is in keeping with survey results from prior years and is to be expected, given that GDC is based in the United States.

Still, it's intriguing to see where attendees are coming from, and this year the results shifted a few points in Europe's favor.
When asked which continent or major region they reside in, 59 percent of those surveyed said North America and 25 percent said Europe, while 7 percent said Asia. 4 percent said South America, and 3 percent were from Australia or New Zealand.

That's roughly the same spread as last year's State of the Industry survey, which suggests GDC's attendee base is relatively stable. In last year's survey 63 percent of those surveyed said North America and 22 percent said Europe. 8 percent said Asia, 4 percent said South America, and 2 percent hailed from Australia or New Zealand.

Men and women still split the industry roughly 80/20

19 percent of survey respondents marked "Female" and 77 percent marked "Male" when asked what gender (if any) they identify with. The rest of the respondents either marked "Other" (2 percent) or declined to answer (2 percent).

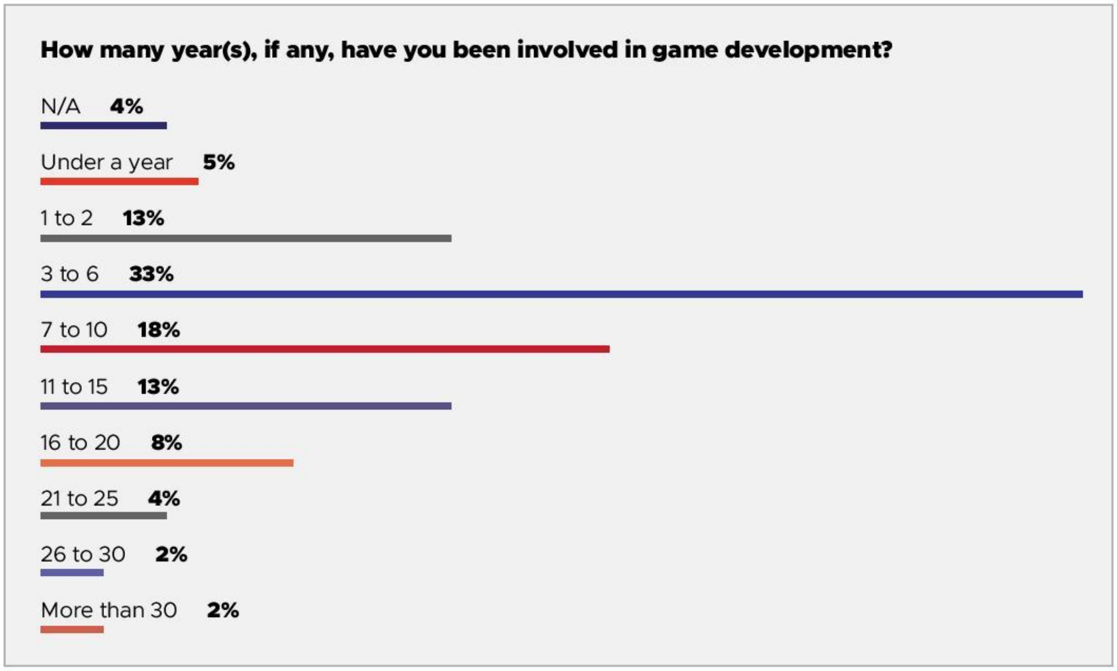
It's a small but noticeable shift from last year, when 80 percent of survey respondents identified as "Male" and just 17 percent identified as "Female".

Most respondents have been making games for less than a decade

We once again asked survey respondents how long they've been making games, and the largest share of those polled -- 33 percent -- said 3-6 years. 18 percent said they'd been making games for 7-10 years, and 13 percent said they'd only been making games for 1-2 years.

By comparison, another 13 percent said they'd been making games for 11-15 years, and 8 percent said they'd been at it for 16-20 years. Most impressive of all, 7 percent of respondents said they've been making games for over 20 years!

Still, the majority of respondents (over 70 percent) said they'd been making games for less than a decade.

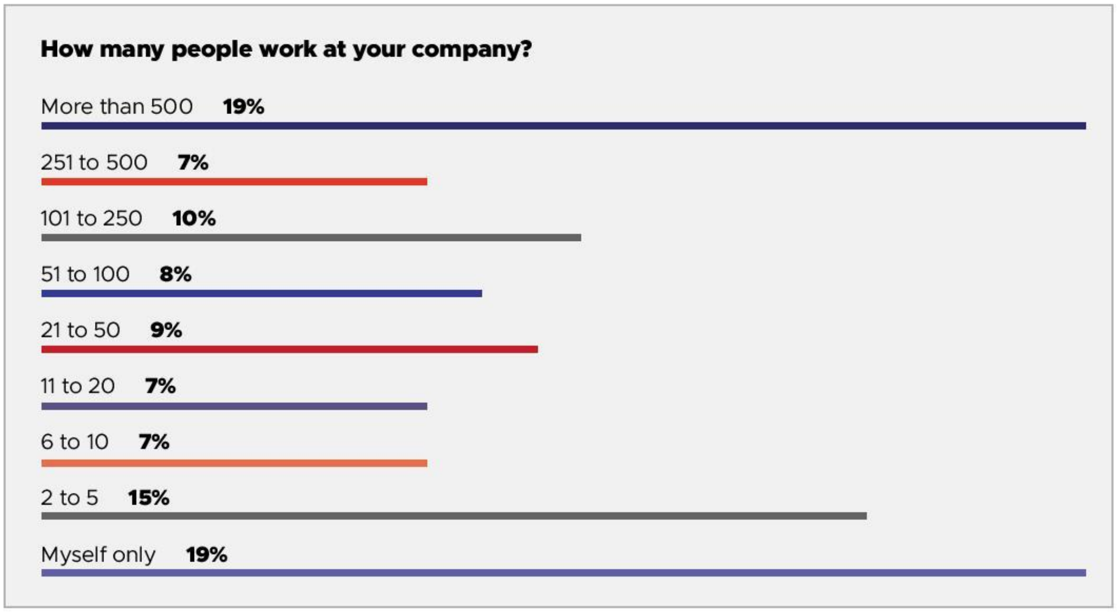


Survey results over the past three years have shown nearly the exact same curve, suggesting the game industry (or at least, the portion served by our survey) has a semi-permanent predilection for young talent. In last year's survey, for example, 32 percent said they'd been making games for 3-6 years, 17 percent said they'd been making games for 7-10 years, and 14 percent said 1-2 years.

Most game makers are still on their own or at very large companies, though nearly half saw their team size expand in 2018

Every year we ask survey respondents how many people work at their company, and every year we see a clear trend towards the very large or the very small.

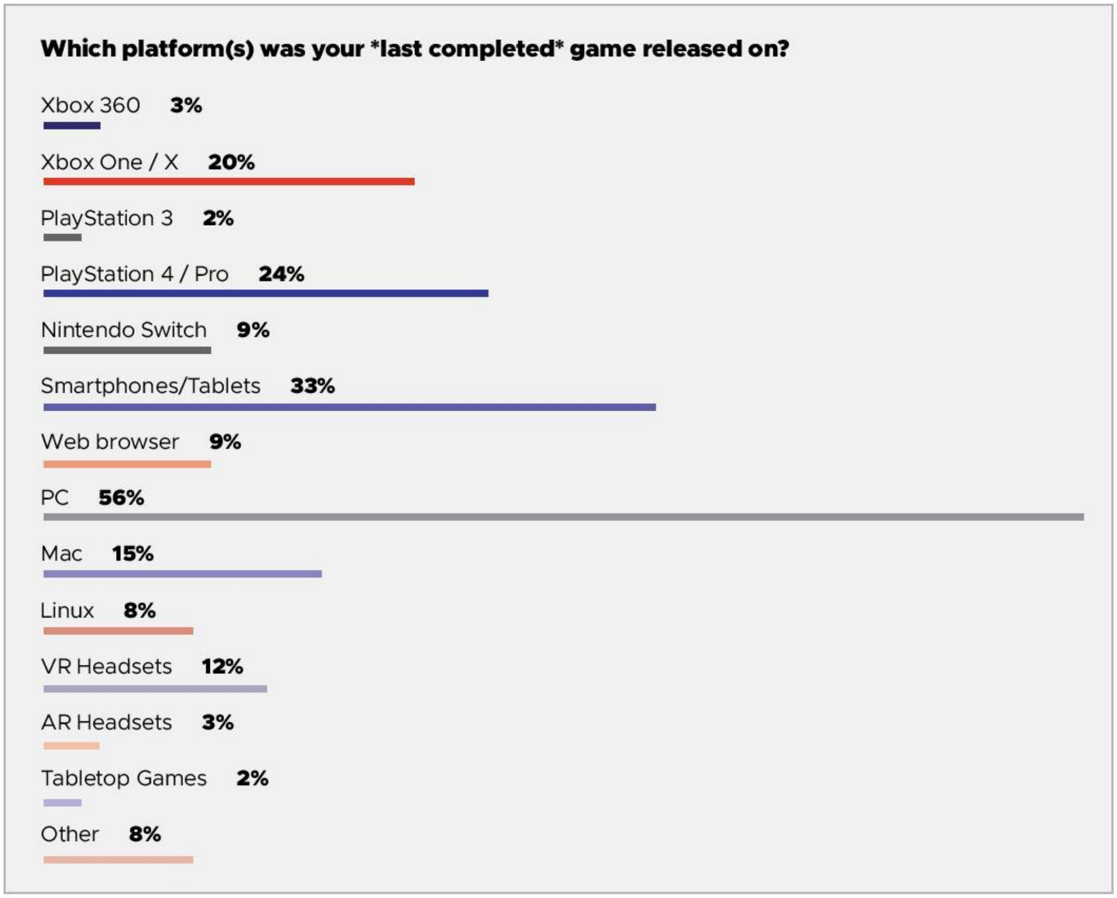
This year was no exception; when asked how many people work at their company, the most popular answer was "Over 500" (19 percent), followed by "Myself only" (19 percent) and "2 to 5" (15 percent). That's basically the same split we saw in last year's survey results, cementing our understanding of the industry as a space where small teams can compete effectively with gigantic companies.



Also, nearly half (46 percent) of respondents said their company expanded in terms of staff in 2018, while 36 percent said their company size stayed the same and 11 percent said it shrank during 2018. Sadly, just over 1 percent (or nearly 50 people) said their company closed entirely during the year.

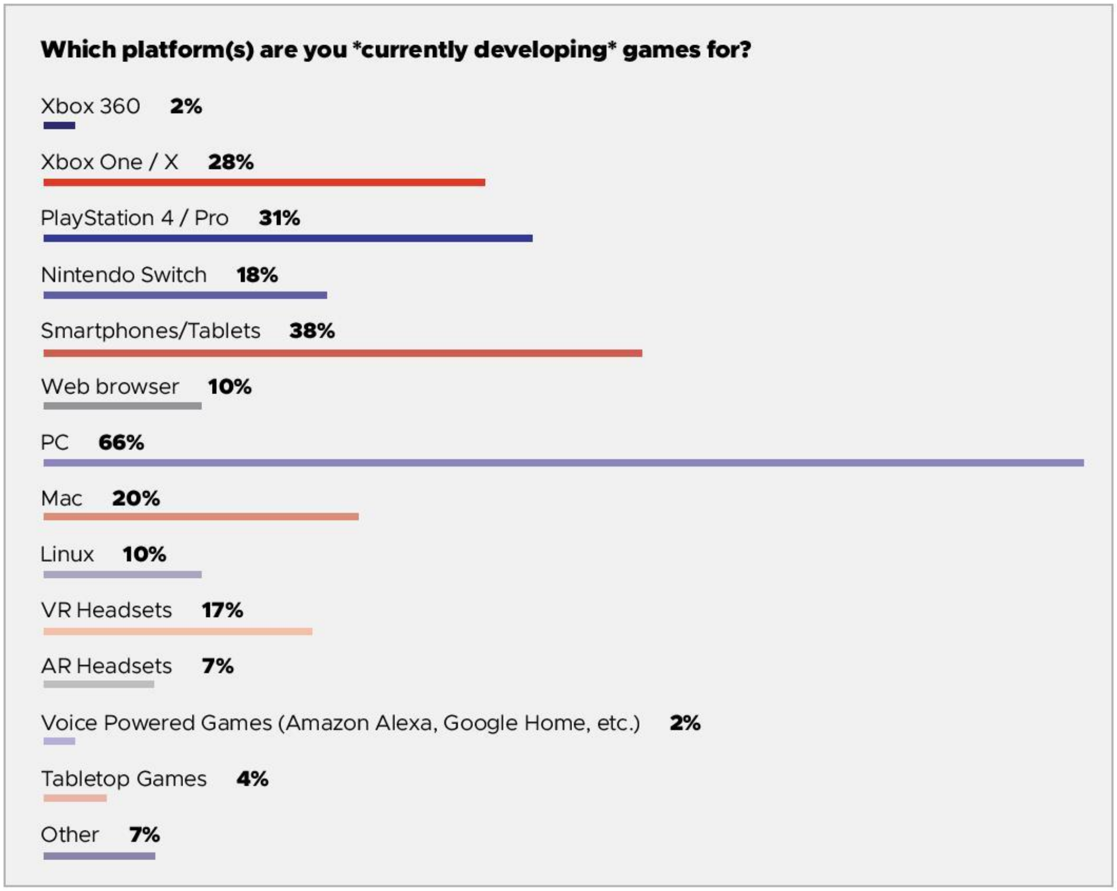
PC and mobile are still the top platforms among devs, but PC's lead is gaining

When asked what platform their last game was released on, 56 percent of those surveyed said PC, 33 percent said smartphone/tablet, 24 percent said PlayStation 4 or 4 Pro, and 20 percent said Xbox One or Xbox One X.



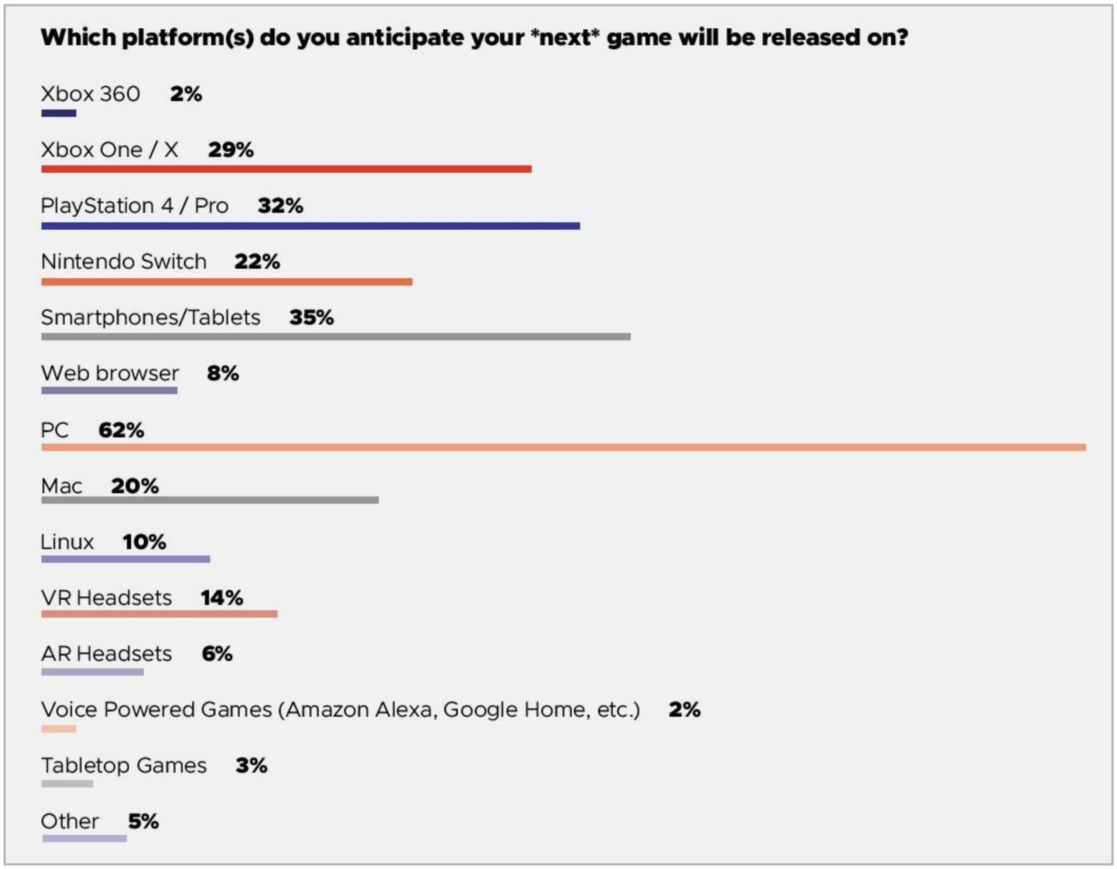
This year's results are roughly the same as those of last year's survey, though the number of respondents who said they just released a Switch game nearly doubled from 5 to 9 percent. While PC dominates every year we ask this question, this is the first year in which more than half of our respondents have just come off a PC game.

When asked what platforms they're currently making games for, two thirds of respondents (66 percent) said PC, 38 percent said smartphone/tablet, 31 percent said PlayStation 4/PlayStation 4 Pro, and 28 percent said Xbox One/Xbox One X.



Here again we note a striking similarity to last year's results, with PC again edging up its lead as the most popular platform for devs' current projects. Nintendo's Switch saw the biggest year-over-year increase in dev interest, up to 19 percent this year from 12 percent a year earlier.

When asked which platforms they expected their next game would be released on, 62 percent of respondents said PC and 35 percent said smartphones and tablets. 32 percent said PS4/PS4 Pro, 29 percent said Xbox One/One X, and 22 percent said Nintendo Switch.

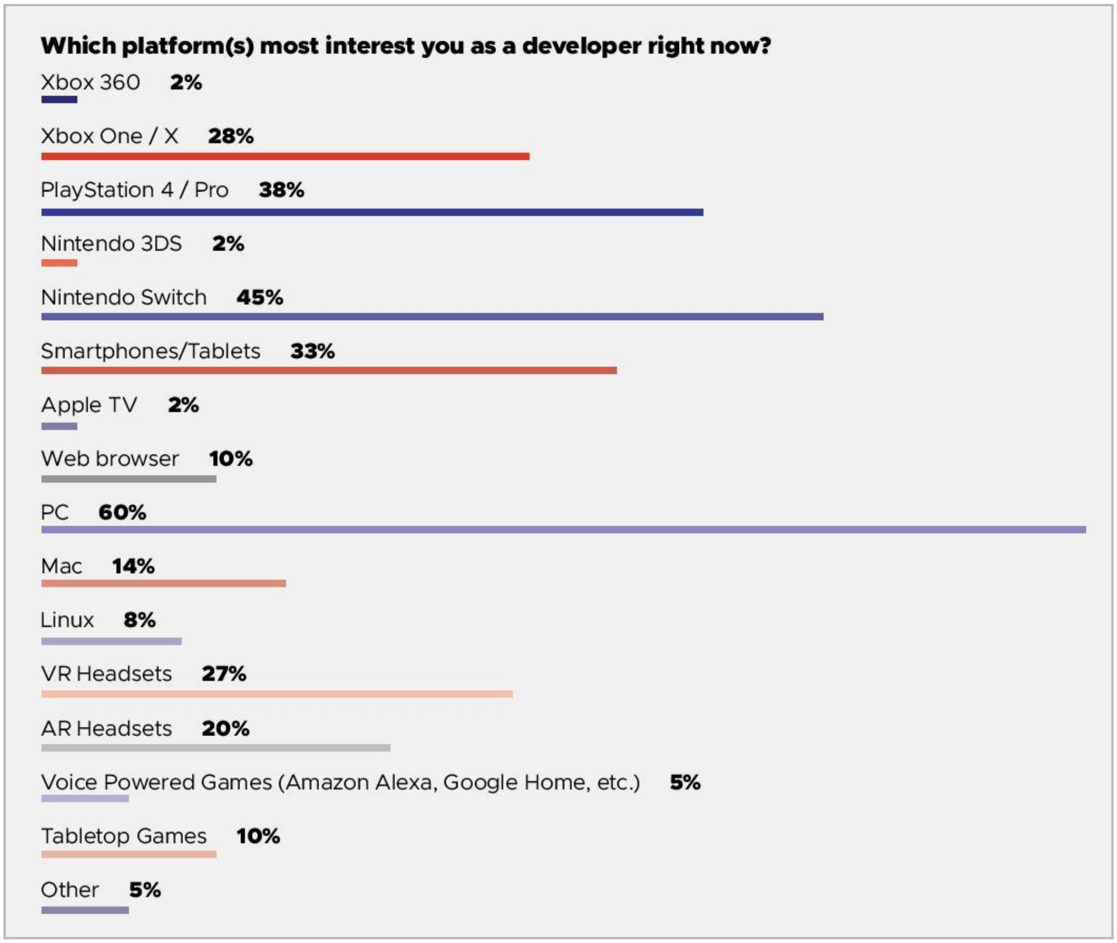


Again we see PC on top and increasing its lead year-over-year, while dev interest in other platforms remains relatively steady.

Almost half of game makers think Nintendo's Switch is the most interesting console

Since the projects you work on don't always reflect your true interests, we also asked devs to tell us which platforms (if any) interest them most. 60 percent of respondents said they're interested in the PC, 45 percent said the Nintendo Switch, and 38 percent said PlayStation 4.

That's significantly more dev focus on the Switch than we saw last year, when just 36 percent of respondents said they were interested in it. After a strong launch year, it seems Nintendo's latest console has carved out a market for itself that interests more game makers than any other console.



Nearly 1 in 4 devs sees their game perform best on Switch, compared to other consoles

To get a sense of how well devs are doing on the Switch, we asked survey respondents whether they'd launched a game on Nintendo's new console, and how it had performed on the Switch relative to other platforms.

The number of respondents who have launched a game on Switch is small (13 percent), though that's still roughly double the 6 percent of respondents in last year's survey who said they'd made a Switch game. This year 10 percent of respondents say they're working on their first Switch game right now and 31 percent say they're considering making a Switch game.

Among those who said they'd launched a game on Switch, the largest share (43 percent) said they couldn't compare how their game had done on Switch compared to other platforms, either because they'd launched exclusively on Switch or for some other reason.

Since launching your game on Nintendo Switch, how have Switch game sales compared to the average across all the platforms you've launched on?

Switch sales have been greater than average. **24%**

Switch sales have been average. **20%**

Switch sales have been less than average. **12%**

N/A. (I have only launched on Switch, or other issues.) **43%**

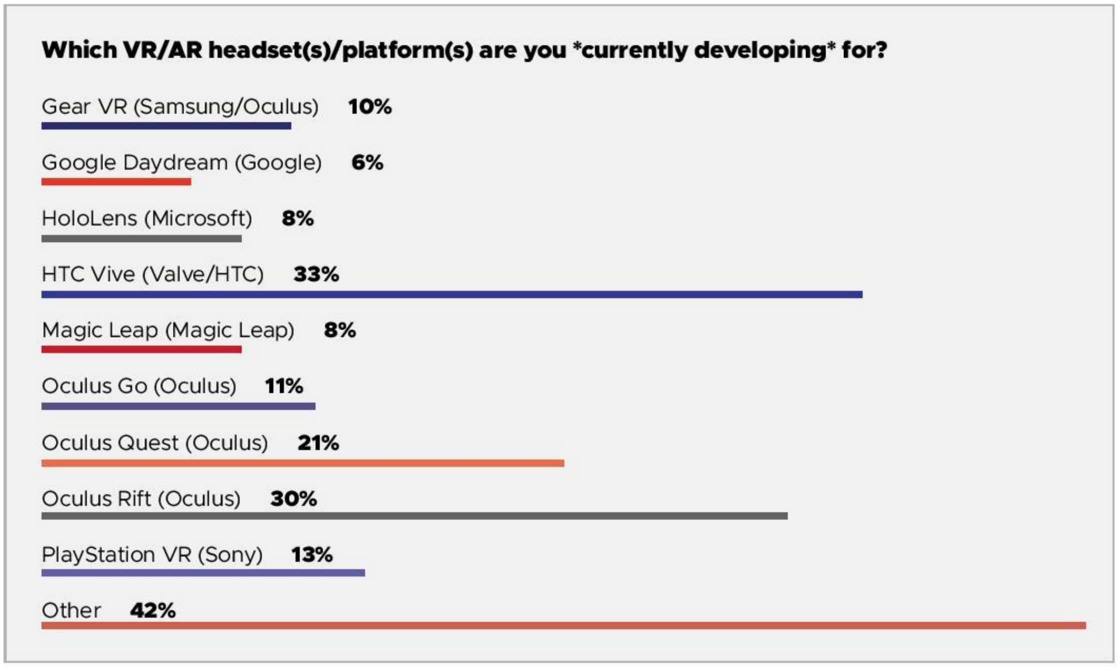
Nearly 1 in 4 (24 percent) of respondents who had launched a game on Switch said it had sold better on Nintendo's new console than on other platforms, while 20 percent said their Switch sales were average and 12 percent said their game actually sold worse on Switch than other platforms.

When we compare these results against last year's survey, we see a small but significant uptick in the number of devs who say they've made or are making a game for Switch and the number of respondents who say they can't compare their Switch sales against other platforms -- perhaps signaling a recent rise in the number of devs making games exclusively for Nintendo's new console.

HTC Vive remains most popular platform among AR/VR game makers for the third year running

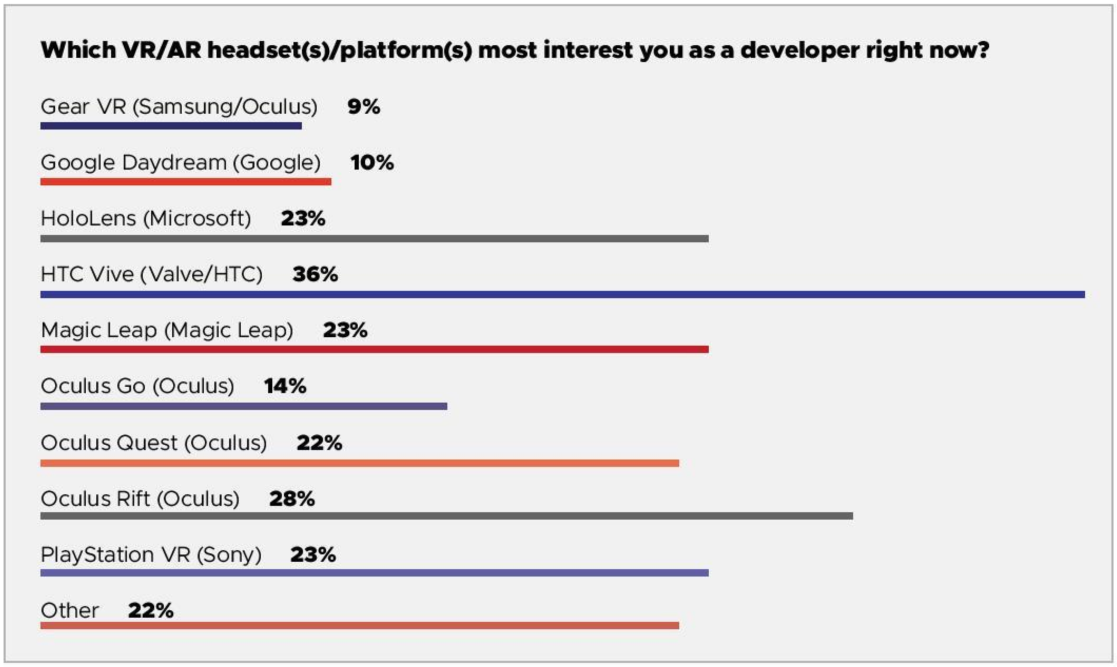
We also surveyed respondents on their involvement with AR/VR games, and the response was evenly split; roughly 52 percent of the game industry professionals we surveyed said they've never been involved with developing virtual- or augmented-reality games.

When we asked the 48 percent that have to tell us which platform(s) they're currently making games for, the most popular answer proved to be the HTC Vive, with one in three (33 percent) of respondents currently working on a Vive game. 30 percent said they're currently targeting Oculus Rift and in distant third were the 13 percent who said they're currently targeting Sony's PlayStation VR.



That's roughly the same as what last year's respondents said, cementing the HTC Vive's position as the most popular AR/VR platform among game makers. When we asked which AR/VR platform their next game would be released on, the largest share -- 28 percent -- said the HTC Vive, followed by the Oculus Rift with 25 percent and 23 percent were undecided.

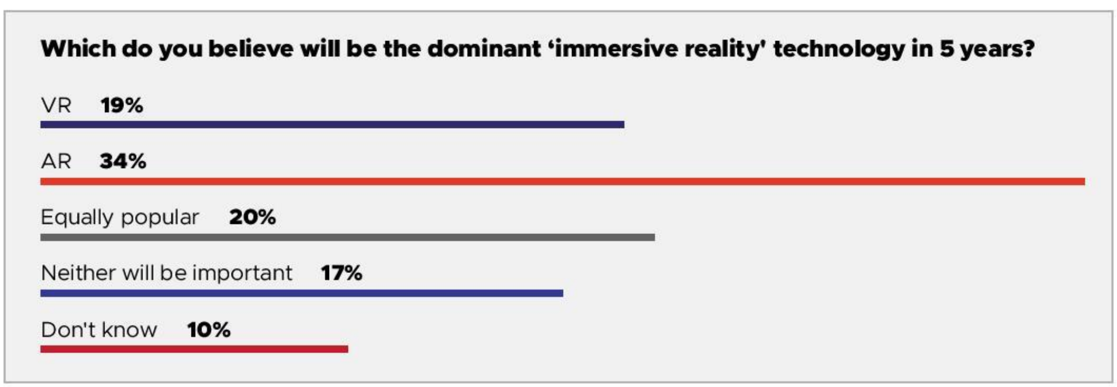
That suggests a gentle slide away from the Rift, as when we asked respondents which AR/VR platforms they put their last game out on, the Oculus Rift and the HTC Vive were the most popular answers with 37 percent apiece. Samsung's Gear VR and Sony's PlayStation VR headsets were distant third and fourth, with 15 and 13 percent respectively.



In terms of general interest it seems the Vive also wins out, as when we asked respondents which AR/VR platform(s) they're most interested in, the largest share (36 percent) said the Vive. 28 percent said the Oculus Rift, and the PlayStation VR, Microsoft's HoloLens, and the Magic Leap tied with 23 percent apiece.

One in 3 game makers believes AR will be the dominant 'immersive reality' tech in 5 years

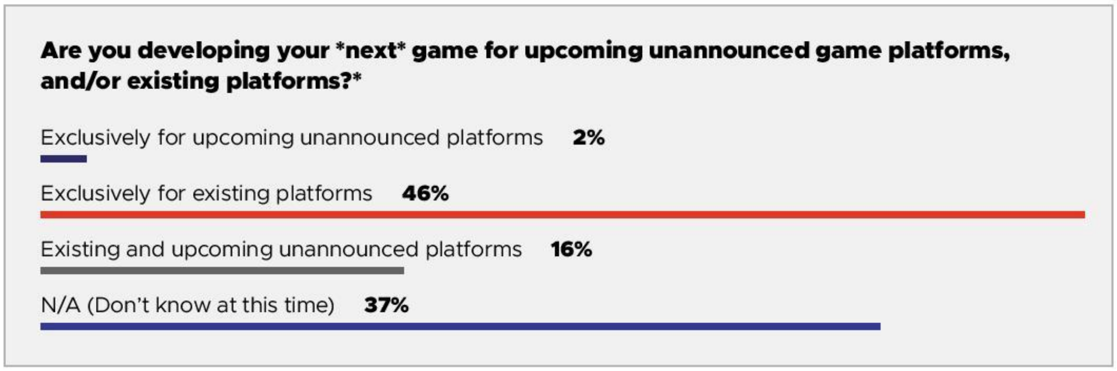
The game makers we surveyed seem to be pretty bullish on the future of augmented reality, as one in three (34 percent) said "AR" when asked whether they believe AR or VR will be the dominant 'immersive reality' technology in five years' time.



Intriguingly, 20 percent said they think AR and VR will be equally dominant in five years, while 19 percent throw in with VR and 18 percent figure neither will be important in half a decade.

With no new consoles on the horizon, few devs are making games for unannounced platforms

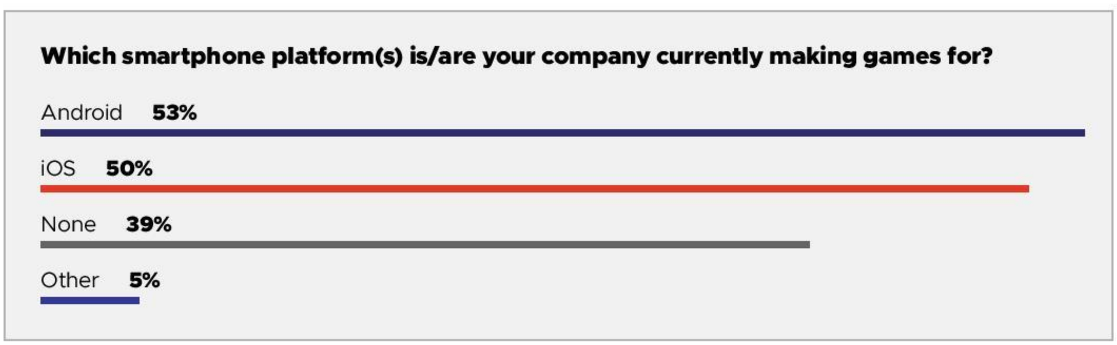
Now that the current crop of consoles is aging nicely, we thought it would be interesting to ask respondents whether they're or not they're developing their next game for any upcoming, unannounced platforms.



Predictably, very few (under a hundred, or less than two percent of) respondents said their next game is being designed exclusively for an unannounced platform. 16 percent said their next game is being developed for both existing and upcoming, unannounced platforms and the largest share (46 percent) said their next game is only coming to existing platforms. 37 percent said they didn't know at this time.

Android is now the place to be on mobile

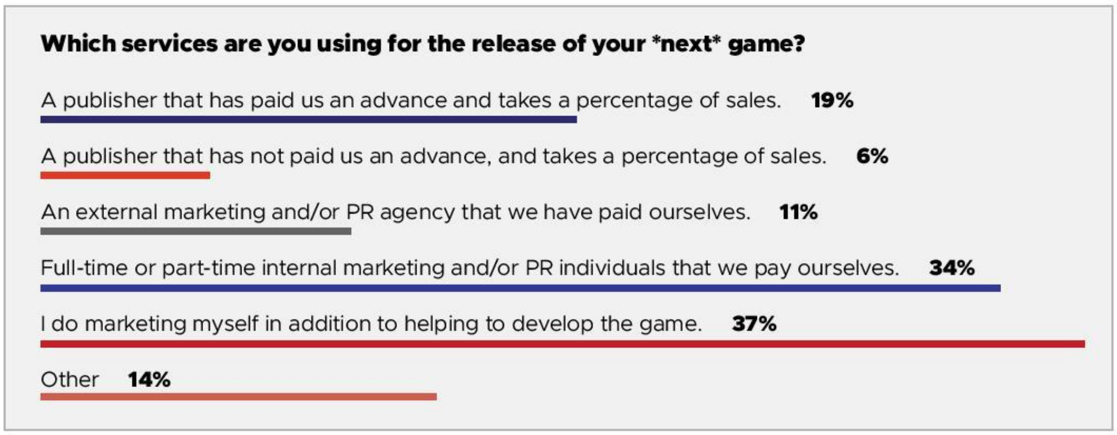
The most interesting market for mobile game makers seems to be Android, at least among those we've surveyed over the past few years.



When we asked this year's respondents which smartphone platforms (if any) they're making games for, 53 percent said Android, making it the most popular response for the third year running. Apple's iOS was a close second with 50 percent, while 39 percent said they weren't making games for mobile at all and 5 percent said they were targeting "other" mobile platforms.

A quarter of game makers are working with a publisher on their next game

How are today's game makers getting the word out about their work? Our survey results suggest mostly on their own, even if they don't have any marketing teams in-house. When we asked them to tell us which service(s) they're using to launch their next game, 37 percent said they do marketing work themselves (in addition to developing games) and 34 percent said they use full- or part-time internal marketing staff they pay themselves.



More notably, 19 percent say they use a publisher who pays an advance and takes a cut of sales, while 6 percent said they use a publisher who hasn't paid an advance and will take a cut of earnings. 11 percent said they use an external marketing agency, and 14 percent said they use other means.

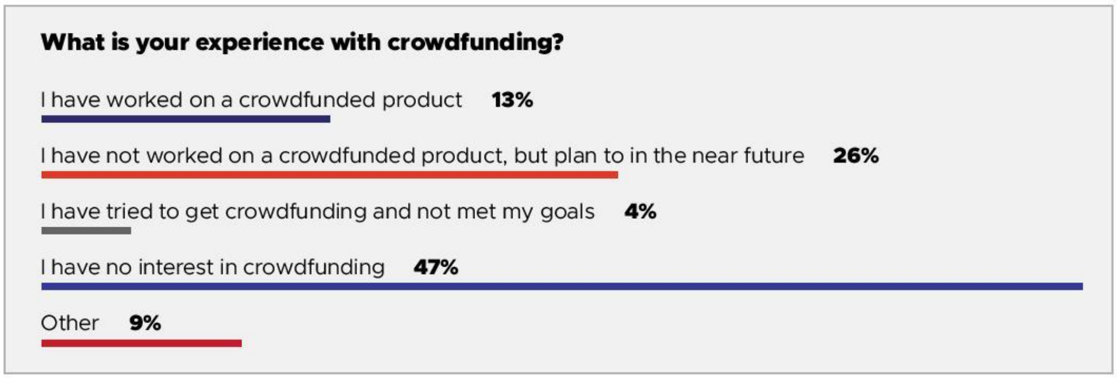
We note that only one in four respondents are working with a publisher, a slight uptick over last year but still quite a low number compared to the game industry before the prevalence of self-publishing.

Most game makers are still self-funded, and interest in crowdfunding is low

As in years past, most of the game makers we surveyed rely on company or personal funds to pay for their work, rather than outside investments or crowdfunding.

When asked where their funding comes from, 51 percent of respondents said their company's existing funds and 33 percent said their own pockets. 17 percent said at least some of their funding comes from an external publisher, while the smallest slice (3 percent) of respondents said they get at least some of their funding from pre-release alpha sales on platforms like Steam's Early Access.

We saw very similar results last year when we asked the same question, suggesting that big companies maintain a steady foothold in the industry even as one in three devs ends up putting at least some of their own money into their work.

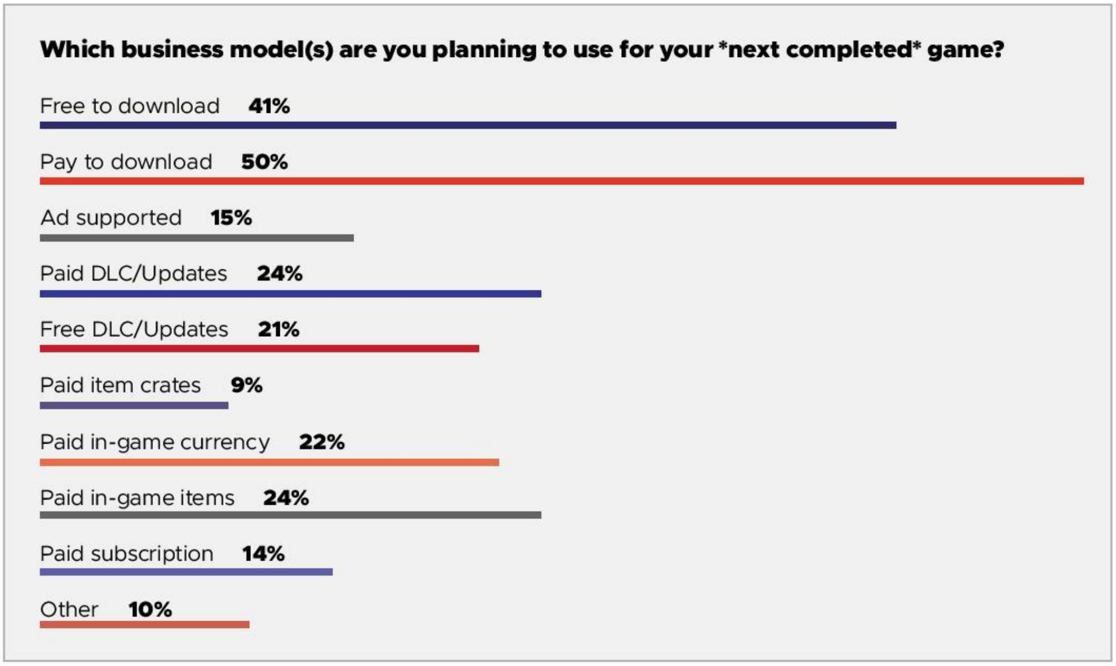


Game makers' interest in crowdfunding, once fiercely growing, now seems to be on the wane; just 6 percent of respondents said at least some of their funding comes from crowdfunding, and 48 percent said they had no interest in crowdfunding at all.

26 percent said they hadn't worked on a crowdfunding project but wanted to, while 13 percent said they have worked on a successfully crowdfunded project and 4 percent said they'd tried and failed to crowdfund a project.

Less than a tenth of game makers are working on a game with "loot box" mechanics

Given the recent conversations about regulating so-called "loot box" monetization schemes in games, we polled devs on which business model(s) they plan to use in their next game. The largest share of respondents, 50 percent, said their next game would be "pay to download" in some sense, while 41 percent said their next game would be in some way "free" to download and play.



The next three most popular monetization options were paid in-game items (24 percent), paid updates/downloadable content (24 percent), and paid in-game currency (22 percent).

Notably, fewer than one in ten (9 percent) of respondents said their next project would include "paid item crates", suggesting game makers' interest in such "loot box' mechanics may be cooling now that they sit in the crosshairs of gambling regulators around the world.

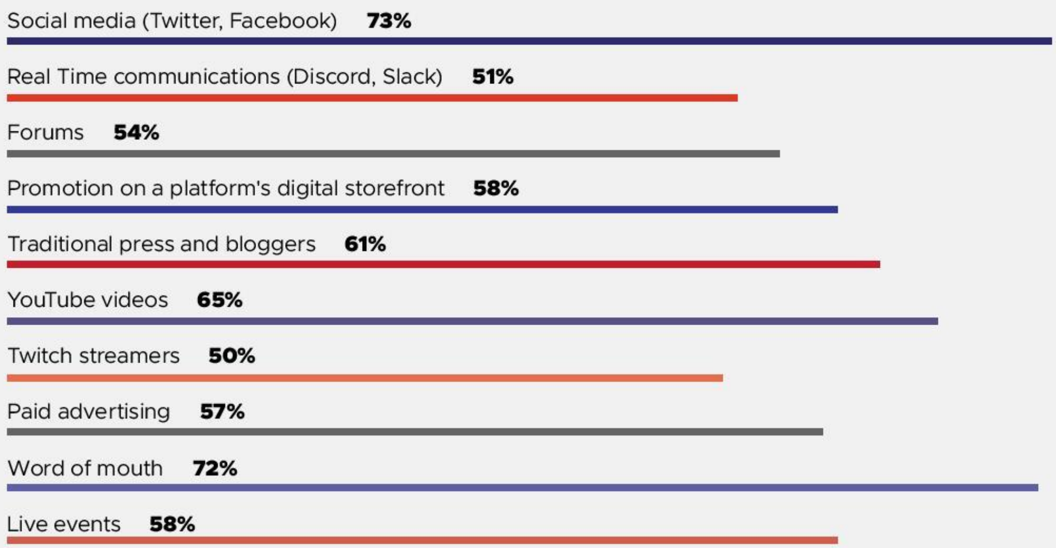
Social media is the #1 way for most game makers to get the word out about their games

To get a better sense of how game makers are selling their games, we once again asked survey respondents to tell us what promotional methods they invested in most to help their last completed game get discovered.

The most popular answer once again proved to be "Social Media" with 73 percent of respondents saying they'd use it to promote their last game and nearly half of those that did (43 percent) saying it was what they invested the most time into.

Word of mouth proved to be the second most popular avenue to invest in with 72 percent, while 65 percent of respondents invested in YouTube videos and 58 percent said they'd invested time or money in promotion on a publisher's storefront. However, on average respondents tended to rank their investment in these promotional avenues lower than they did in social media.

Which discovery methods did you put the most investment (time or money) into for your *last completed* game?



We followed up that question by asking respondents to tell us, in ranked order, what discovery methods actually proved to be the most effective for their last game launch. Here again social media was seen to be the most winning investment, with 68 percent saying social media was effective and the largest share (38 percent) of them saying it was their most effective discovery method overall.

66 percent said word of mouth had proven effective, 58 percent said YouTube videos had proven worthwhile, and 55 percent said promotion by a platform-holder proved effective.

Intriguingly, the "most disappointing" form of promotion (at least in terms of how many people ranked it lowest in terms of proven value) turned out to be live events, with 24 percent of respondents who rated live events effective ranking it the lowest possible value.

Which discovery methods (planned or organic) did you actually find to be the most effective for your *last completed* game?

Social media (Twitter, Facebook) **68%**

Real Time communications (Discord, Slack) **47%**

Forums **49%**

Promotion on a platform's digital storefront **55%**

Traditional press and bloggers **56%**

YouTube videos **58%**

Twitch streamers **46%**

Paid advertising **52%**

Word of mouth **66%**

Live events **53%**

More than a quarter of game makers are working on a game with accessibility features

Given how important it is to makes games accessible to the broadest number of people, we thought it would be worthwhile to ask game makers whether they'd implemented any accessibility measures (for players with color blindness, motor impairments, etc.) into their current game.

Have you implemented any accessibility measures (for those with sensory impairment, motor impairment, or other impairments) into your current game?

Yes **26%**

No **50%**

Don't Know / N/A **23%**

Half of our respondents said no, but 26 percent said they had and 23 percent said they didn't know for sure.

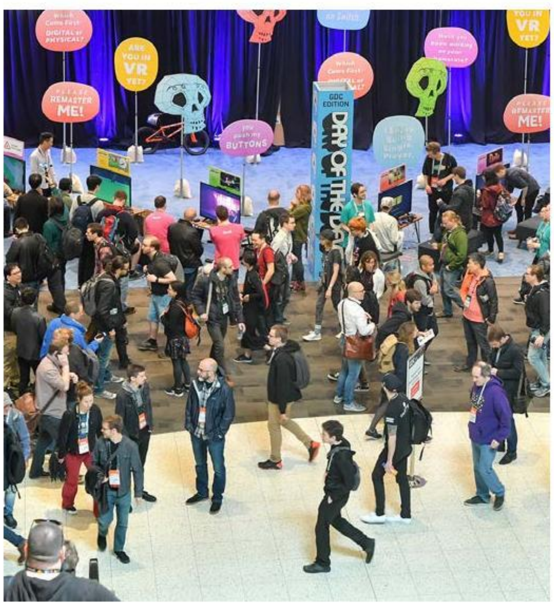
"We never use color to denote importance," wrote in one respondent to explain what they'd done to make their game more accessible. "Due to color-blindness, we only use shape and form. We also allow for fully customizable controls to work with adaptive controllers."

"We added colorblind support. This was a direct result of a local IGDA event where the focus was on raising awareness of accessibility concerns in games."

"We added colorblind support," volunteered another. "This was a direct result of a local IGDA event where the focus was on raising awareness of accessibility concerns in games."

"Our games have colorblind modes," wrote another. "And we consider potential issues when designing control schemes (avoiding multiple button presses, holding buttons, or anything else that might be difficult for some impairments)."

With a sample size of nearly 4,000 game industry professionals, this 2019 State of the Industry Survey is the seventh in an ongoing series of yearly reports that offer insight into the shape of the industry as a prelude to GDC in San Francisco. Organized by Informa Tech, GDC 2019 will take place this year March 18th through the 22nd at the Moscone Convention Center in San Francisco, California.



Belgian Games Café

Moscone Center Exhibition Plan

Mission Street

Fourth Street

Third Street

Folsom Street