THE STATE OF TECHNOLOGY & CULTURE:

Gaming Takeover

WINNER

Battle Royale ISOLATED   08:35 02/10/2

MaC
VENTURE CAPITAL

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INTRODUCTION

MaC Venture Capital is an early stage venture capital firm focused on finding ideas, technology, and products that can become infectious. We invest in technology companies that benefit from shifts in cultural trends and behaviors in an increasingly diverse global marketplace.

Periodically, we compile a list of cultural/ behavioral trends that we believe are influencing global popular culture, termed "Culture Shifts: The State of Technology and Culture". These shifts represent areas that we believe hold great opportunities for growth, innovation, and of course, investments in the coming year.

In this installment of our State of Culture series, we look at how the gaming industry is changing the world and where we see opportunities for growth, innovation, and investment in the years ahead.

GAMES AND CULTURE

Imagine we are back in 1988 in the middle of another US presidential election. Michael Dukakis is running against George H. W. Bush. The Nintendo Entertainment System (NES) premiered to great success three years prior, launching Super Mario Brothers and Zelda into the public consciousness. To reach younger voters Michael and his running mate Lloyd Bentsen decide to put up digital campaign yard signs next to each castle in Super Mario Brothers and outside each dungeon in the Legend of Zelda. Of course, even if it was technically possible to do that (it wasn't), the world would have looked at the candidates as certifiably crazy had they done it. Flash forward 32 years, and the current Democratic candidate for president, Joe Biden and his running mate Kamala Harris recently announced that they are doing just that—putting up virtual campaign signs inside of Nintendo's social simulation game Animal Crossing—and the collective thought is, what a great idea.

What started in the early 1970s as a way to bounce an electronic ball between two paddles on your home television screen has morphed into a massive industry that is influencing and shaping culture and business on a global scale. The $160 billion video game industry is the melding of physical and digital worlds that is literally pulling everything from education, music, movies, TV, sports, medicine, national defense, construction and politics into the future. In fact, while the video games themselves remain a central part of the industry, the reverberation these games have on the world produces an outsized impact far greater than revenue alone.

Source: Nintendo

Source: The Verge

BIG AND GETTING BIGGER

In 2020 we have seen three gaming companies reach incredible milestones:

Roblox raised $150 million and was valued at $4 billion. In July, Roblox users spent a collective 3 billion hours on the platform, up 100% from earlier this year.

Epic Games raised $1.78 billion at a valuation of $17.3 billion and unveiled its next-gen game engine Unreal Engine 5 that melted just about everyone's mind.

Epic's competitor, Unity raised $1.3B in an IPO that valued the company at $13.7B after raising $525 million at a $6.3 billion valuation last July.

In 2020 2.7 billion gamers—32% of the world's population—will spend $160 million on games, a number expected to exceed $200 billion by 2023. By comparison, the global box office industry is worth $41.7 billion while global music revenues reached $20.2 billion in 2019. Gaming is the largest and fastest growing segment of the entire entertainment industry.

average of six hours, 20 minutes each week playing games, with those aged 26-35 spending the most time playing at seven and a half hours a week. However large all of this is, people still spend over three hours per day watching TV, or 23 hours per week, meaning there is much mindshare that can be taken by video games—which is almost assuredly why Netflix feels Fortnite is a bigger competitive threat than HBO.

All of this news has made its way to the public markets, where gaming companies are   .
However, gaming companies have a mean P/E ratio of 25 compared to the S&P 500's mean of 30 (and that's after the six-month run-up since March). Given the many reasons gaming is poised to continue its takeover of the entertainment industry, it feels as if the gaming industry may be highly undervalued.

And what some may not appreciate is that we may be coming up on the end of the beginning of the gaming industry, and that the next ten to twenty years will see gaming culture and technology having an even larger impact on how we live and
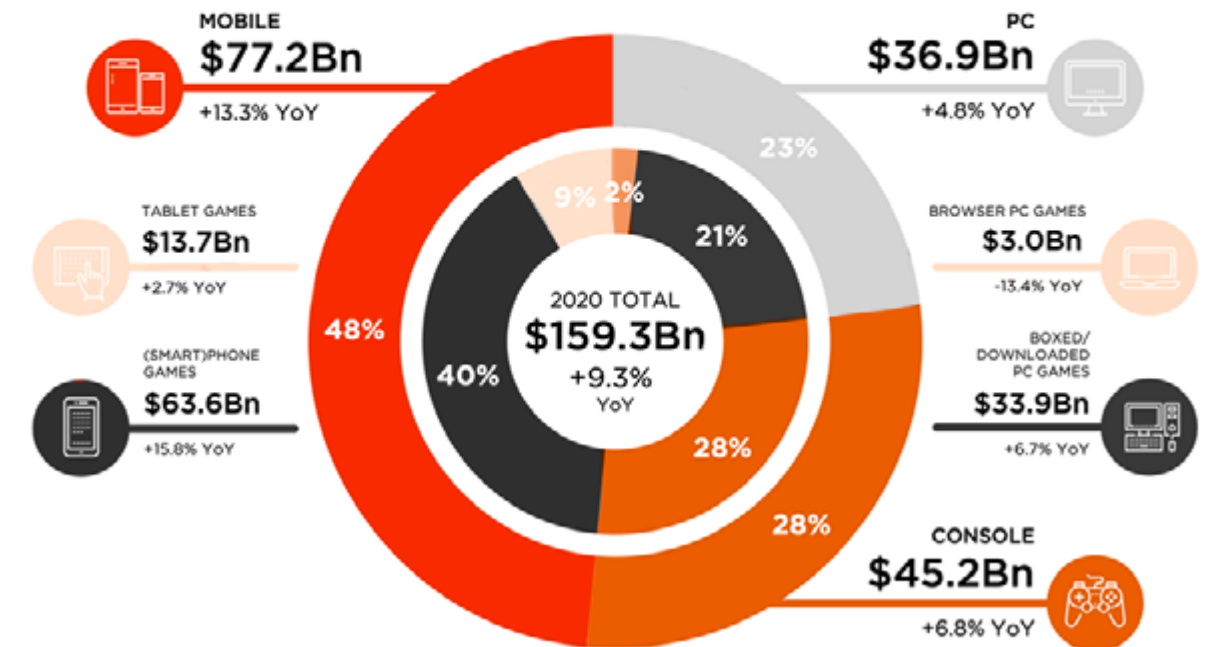
Source: Newzoo

Company	Market Cap	Enterprise Value	Stock Price Change			CY2020E Operating Metrics			CY2020E Valuation Metrics		
			7 days	30 days	90 days	Revenue	Rev Growth	EBITDA Margin	EV/REV	EV/EBITDA	P/E
US/Europe											
Activision Blizzard	$61,381	$57,719	-5.0%	-6.3%	13.8%	$7,826	22.5%	41.7%	7.4x	17.7x	24.6x
Electronic Arts	$38,754	$33,790	-7.6%	-11.0%	10.0%	$5,781	7.8%	34.7%	5.8x	16.9x	24.7x
Take-Two Interactive	$18,648	$15,895	-5.5%	-8.1%	25.4%	$2,965	7.8%	21.5%	5.4x	25.0x	33.7x
CD Projekt	$11,403	$11,276	-4.0%	4.4%	9.6%	$863	NM	79.3%	13.1x	16.5x	22.9x
Zynda	$9,978	$9,912	-3.4%	-13.1%	-2.5%	$2,198	40.6%	22.8%	4.5x	19.8x	26.2x
Ubisoft Entertainment	$8,680	$9,078	-4.1%	-6.3%	-2.6%	$2,703	34.6%	21.7%	3.4x	15.5x	29.7x
Embracer Group B	$6,139	$6,024	-6.1%	8.1%	36.8%	$861	66.3%	41.6%	7.0x	16.8x	32.7x
SciPlay	$1,654	$1,498	1.8%	-17.4%	-10.1%	$562	20.7%	32.8%	2.7x	8.1x	9.9x
Glu Mobile	$1,343	$1,060	-2.3%	-8.2%	-15.0%	$554	30.9%	10.4%	1.9x	18.4x	22.3x
Rovio Entmt	$591	$476	-7.4%	9.6%	15.6%	$323	2.5%	21.0%	1.5x	7.0x	15.6x
Next Games	$47	$44	-11.7%	8.1%	19.2%	$36	(6.7%)	1.7%	1.2x	NM	NM
China											
Tencent	$643,613	$632,265	-4.2%	-7.7%	19.3%	$70,035	31.6%	37.0%	9.0x	24.4x	36.4x
NetEase	$67,064	$57,752	-3.8%	0.9%	14.1%	$10,620	25.8%	28.5%	5.4x	19.1x	25.7x
Bilibili	$15,399	$14,815	-0.8%	3.3%	36.6%	$1,635	69.5%	(17.9%)	9.1x)	NM	NM
37 Interactive Entertainment	$13,530	$12,979	-8.0%	-3.9%	29.6%	$2,508	33.7%	NA	5.2x	NA	NA
Century Huatong	$12,119	$12,202	3.7%	-4.3%	0.7%	$2,785	35.5%	NA	4.4x	NA	NA
Perfect World	$10,203	$9,802	-4.9%	-4.2%	15.3%	$1,579	39.1%	NA	6.2x	NA	28.3x
Giant Network	$5,827	$5,389	-2.2%	-2.5%	24.8%	$390	6.9%	NA	13.8x	NA	42.8x
Yoozoo	$3,118	$3,244	-2.9%	-8.8%	-3.2%	$767	68.0%	NA	4.2x	NA	23.1x
IGG	$1,446	$1,139	0.8%	15.6%	71.8%	$682	2.2%	27.1%	1.7x	6.2x	6.9x
Levou Tech Holdings	$1284	$1,291	-0.3%	7.0%	33.5%	NA	NA	NA	NA	NA	NA
iDreakSky Technology	$846	$992	1.6%	2.7%	15.7%	$463	17.7	17.1%	2.1x	12.5x	12.5x
Japan											
Nintendo	$66,998	$55,366	6.0%	21.8%	30.4%	$13,228	11.2%	36.0%	4.2x	11.6x	22.8x
BANDAI NAMCO Holdings	$13,778	$12,598	3.0%	8.3%	4.1%	$6,556	(2.0%)	NA	1.9x	NA	28.0x
Square Enix Holdings	$8,138	$7,042	5.7%	19.7%	36.6%	$2,918	19.6%	NA	2.4x	NA	27.0x
Cyber Agency	$7,008	$6,715	1.2%	-5.8%	9.0%	$4,515	6.1%	9.5%	1.5x	15.6x	60.6x
KONAMI HOLDINGS	$5,423	$4,573	6.7%	13.9%	7.8%	$2,355	(3.1%)	NA	1.9x	NA	23.5x
Capcom	$5,391	$4,807	6.5%	8.4%	39.1%	$822	2.8%	NA	5.8x	NA	31.6x
Koei Tecmo Holdings	$5,078	$5,010	1.0%	-4.9%	36.1%	$467	21.0%	NA	10.7x	NA	NA
DeNA	$2,208	$1,658	3.6%	30.5%	16.6%	$1,138	0.6%	7.3%	1.5x	19.9x	NM
Gun gHo	$1,435	$706	2.8%	7.8%	19.7%	$794	(14.0%)	20.7%	0.9x	4.3x	14.7x
Korean / Other Asia											
Sea	$66,751	$64,052	-5.6%	-0.9%	60.7%	$5,007		(1.3%)	12.8x	NM	NM
NEXCON	$21,263	$16,984	3.4%	8.9%	11.7%	$2,778	71.7%	47.3%	6.1x	12.9x	20.7x
NCsoft	$14,083	$12,592	-5.0%	-3.9%	1.0%	$2,184	22.7%	39.3%	5.8x	14.7x	22.5x
Netmarble	$13,596	$13,494	29.5%	45.2%	103.6%	$2,160	51.4%	12.6%	6.2x	49.5x	60.3x
DoubleU Games	$1,088	$1,557	6.7%	-3.3%	18.7%	$565	17.3%	NA	2.8x	NA	7.5x
						Mean	23.3%	24.7%	5.1x	16.8x	26.3x
						Median	20.9%	22.3%	4.5x	16.5x	24.7x

Source: LionTree

WHY IS THIS HAPPENING NOW?

Five decades into the gaming revolution, three decades into the rise of the modern Internet, two decades into the mass adoption of the smartphone, and standing at the dawn of the 5G era that will bring gigabit-per-second speeds to our mobile devices and headsets, all of the technology required for gaming cultural takeover is nearly in place and ready to deploy at scale around the world.

In August, Nvidia unveiled their latest graphics chip, the GeForce RTX 3080 that has 28 billion transistors. The original NES contained a grand total of 3,218 transistors. The upcoming Microsoft Xbox Series X will have a AMD Zen 2 processor boasting 15.4 billion transistors. Even the iPhone X's A11 Bionic chip contains 4.3 billion transistors. This massive increase in computing power along with improvements in machine learning models fueled by larger and larger data sets and platforms like TensorFlow allow for exponentially more complex and expansive games without sacrificing speed or quality.

Mobile phone and home broadband penetration is becoming nearly ubiquitous in the developed world with 73% mobile phone penetration in the US and 61% penetration globally, and

94% broadband internet penetration in the US and 62% penetration globally. The average broadband internet speed in the US is 50.2 Mbps with some cities averaging above 100 Mbps. 4G speeds average at 5 Mbps and can go as high as 50 Mbs. Two of the world's largest gaming markets have high 4G penetration: South Korea has the highest global penetration at 97.5% with the US placing 5th at 93%. As speeds progress up to multi-gigabit levels, game latency for even the fastest moving games will fall to levels not perceivable by human eyes.

The devices by which we experience and interact with games are evolving as well. Bigger and bigger TV sets and computer monitors aside, we have also seen best-selling devices like the Nintendo Switch bring AAA gaming to the mobile consumer. Apple's 2020 iPhones will most likely be 5G enabled and have a 120Hz "ProMotion" refresh rate making that next Call of Duty: Mobile session all the clearer. As more VR and AR gaming options come to market (including Apple's forthcoming AR glasses), gamers will find new ways to fully immerse themselves into the gaming environment, enhanced even further by haptics and other audiovisual sensor devices. Cross-platform

gaming will enable players to start a game on their mobile device, pick it up on their PC and complete a mission virtually inside a VR environment.

In the same way that AWS has lowered the barriers to entry for entrepreneurs wanting to launch a startup, game engines such as the Unreal Engine and Unity have democratized the ability to develop a game. These game engines can manage many of the complexities of game development, including in-game physics and rendering optimization so that game devs can focus on art, story, gameplay, community and other more creative and strategic aspects of game creation. Taken even further, products like CORE from Manticore Games are no-code platforms where even the most novice game developer can create a robust AAA game. Dev teams can be smaller and operate independently outside of a larger publisher. And there are other off-the-shelf solutions including whole ecosystems, with marketplaces, economies, developer communities, plug-ins, and modules that allow devs to bring games to market faster and cheaper than ever before. Additionally, and not without controversy, app stores from Google and Apple have made reaching an audience of millions significantly easier. And the easier it becomes to make and distribute a game, the more diversity we'll see in the developer community and the games that community creates.

We are living in unique cultural times. We seem to be at record levels of economic and political polarization the world over. COVID-19 has amplified the demand for virtual entertainment and interactivity. More optimistically, we have several generations of people who have now grown up with video games, and at least one generation who has come of age with ubiquitous virtual worlds, identities and assets. Sandbox games like Minecraft and Robolox have birthed a generation of virtual-world makers who seek identity and friendship inside of these worlds as much as they do the physical one. While far from perfect, games possess the ability to bring us together and help bridge the divides that exist between us.

Source: The Verge

THE GAMING TAKEOVER

Marc Andreessen's prophetic 2011 essay "Why Software Is Eating The World" mapped out the coming world of software dominance across almost every industry. Nearly ten years later, in large part because software has eaten the world, we are seeing all aspects of gaming starting to infiltrate business and culture. This will only accelerate and the world will never be the same.

MUSIC

One truly must be living under a rock to not know about Travis Scott's Astronomical virtual show in Fortnite, which set a record for the largest live performance of all time (not counting those attached to a sporting event) with 12.3 million concurrent participants and over 27.7 million unique players in-game participating live 45.8 million times across the five events, and grossing an estimated $12.5 million. This was a culture-shifting moment that was preceded by equally interesting virtual performances. DJ Marshmello held the first-ever live performance inside of Fortnite in February 2019 that had 10.7 million concurrent participants. Other live performances happening in game-like environments include the Wave shows from Lindsey Sterling, John Legend and The Weeknd among others. Most recently, Epic announced that they want Party Royale Island in Fortnite to be a tour stop for major artists, and are kicking this off with a new, three-week-long concert series. And a K-pop single by a group composed entirely of video game characters is No. 1 on the Billboard charts for the second time.

FASHION

What was also interesting about the Travis Scott Astronomical Fornite performance was that he was wearing his Travis Scott Nike Air Force 1s. It was a prominent promotion of the famous shoe that did not go unnoticed. About a year prior, Brand Jordan partnered with Epic to deliver branded Jordan content into Fortnite. Beyond in-game fashion collaborations, gaming influencers and professional organizations have partnered with major brands to merge the worlds of fashion and gaming. Louis Vuitton launched a League of Legends collection ahead of the 2019 Worlds tournament, and the famous Fortnite streamer Ninja became the first pro gamer to get his own shoe line when he launched a low-top sneaker with Adidas. FaZe Clan, a MaC VC portfolio company and one of the industry's biggest professional organizations has continued to break ground with collaborations with Champion, Manchester City Football Club and Juice WRLD among many others. Some have even speculated that eSports apparel could overtake traditional sports merchandise sales.

RETAIL

Beyond games as an ideal spot to launch new fashion concepts, physical retailers are also getting in on the gaming action. Simon Property Group, the largest mall operator in the US announced last year it was investing $5 million in the entertainment company Allied Esports to create lounges for competitive video game events at Simon's malls. The second most valuable publicly-traded gaming company after Tencent, Sea Limited launched an ecommerce platform Shopee in 2015. The site is now known as the Amazon of Southeast Asia and it did $6.2 billion in GMV in Q2 2020. That would be like Riot in the US launching a true Amazon competitor. Pretty remarkable.
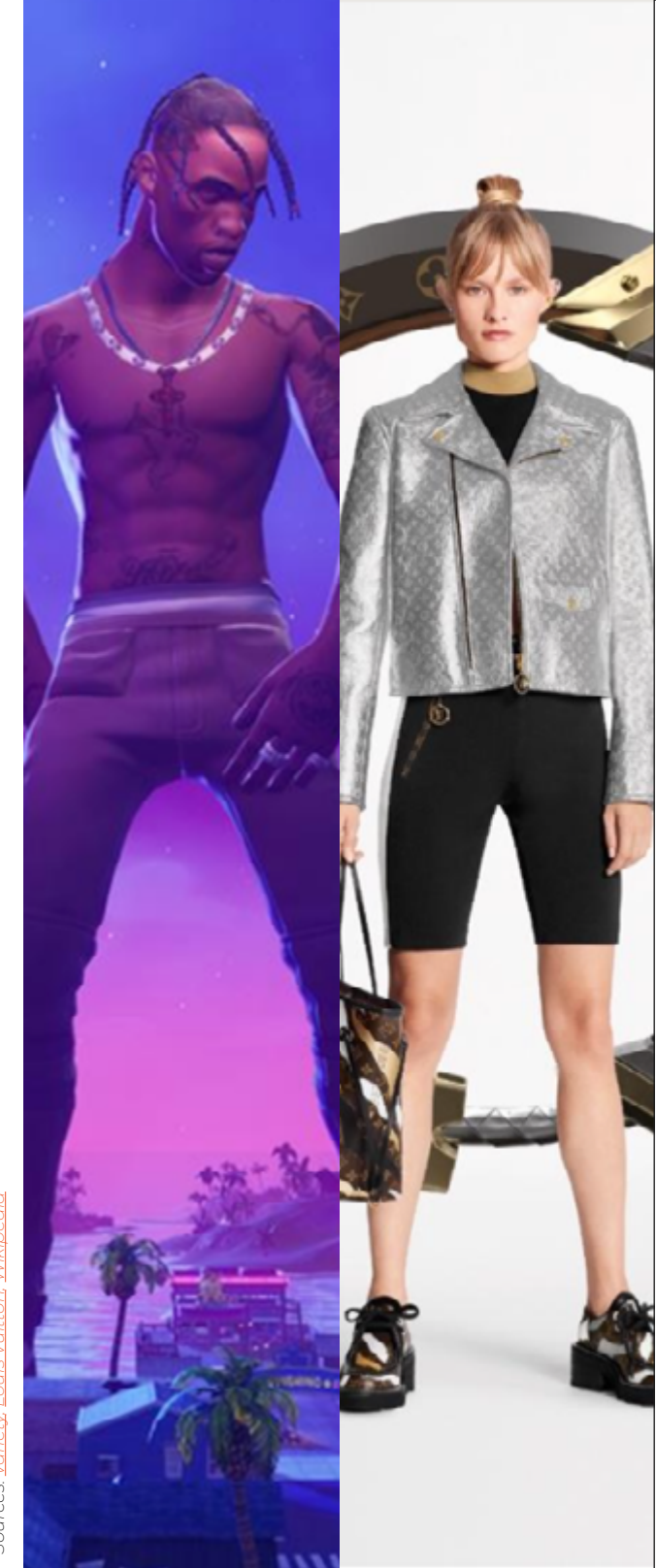
TRADITIONAL FILM & TELEVISION

Traditional film and television have benefited vastly from gaming, and quietly the film and TV industries are slowly transforming into a business that more resembles the gaming industry than the Tinsel Town of old. At the most basic level, when done right, gaming IP can make for great filmed content (see Paramount's *Sonic the Hedgehog* or Netflix's *The Witcher*). Games can also be a great place to promote a film. JJ Abrams premiered an exclusive clip of his *Star Wars* film inside of Fortnite, and the game offered lightsabers and other *Star Wars* merch in-game. Fortnite also introduced John Wick mode that adapted themes and items from the John Wick films into the game. In June, Fortnite announced Movie Night where gamers could watch limited screenings of one of three different Christopher Nolan films, Inception, Batman Begins, or The Prestige directly in Fortnite.

CONTENT + CONTENT CREATION

More interesting though is the way the movie-making process has been altered by gaming technology. The Disney+ smash series, The Mandalorian employed Epic's Unreal Engine to create a virtual production workflow that could change and control set backgrounds in real-time. Disney's The Lion King feature film was shot entirely inside of a VR world where the creative team could alter the whole landscape and the characters in it virtually in real time. Special effects professionals are now able to create incredible and 100% realistic real-time VFX using the Unreal Engine, saving them massive amounts of time and money. And evolving even further, startups like Pladeo in the UK are creating a "new grammar for television" by completely re-thinking the content creation process and television formats. Their series Avo is the perfect marriage between a traditional scripted web series and a mobile game.

GAME DEVELOPMENT

Even game development itself has been altered in a very meta way by gaming technology. Roblox recently announced it would be paying out $250 million to developers in 2020 alone who have created games and experiences inside of Roblox. And some of these games are becoming more popular than even traditional AAA games. Others like Toya are targeting specific female audiences. An army of young budding game developers are now making a living developing games inside a game.

TRADITIONAL SPORTS

Traditional stick and ball sports have also been swept up in this trend. For decades, some of the biggest gaming titles were those built around traditional sports: Madden NFL, FIFA Soccer, NBA Live, Wii Sports and NBA 2K are some of the best-selling franchises of all time. But what is even more compelling is how gaming is transforming the way in which younger audiences interact with traditional sports. Livestreaming platform Caffeine has begun to broadcast the X Games allowing for any Caffeine user to act as their own commentator broadcasting their own customized and personalized version of the competition to their legion of fans. And soon you may even be able to watch live NFL football games inside of Minecraft being played out in Minecraft stylized stadiums and with Minecraft stylized players.

eSPORTS

Moving beyond traditional sports, eSports have blossomed into a vibrant ecosystem projected to hit $1.1 billion in revenue in 2020. Globally, the total esports audience will grow to 495 million people in 2020, a year-on-year growth of 11.7%. And live eSports championship matches are seeing upwards of over 1 million concurrent viewers. While that might not yet stand up to the average NBA finals game or the Super Bowl, it does beat the average MLB game which averaged 925 thousand viewers in 2019. And while we may not see eSport-themed Starbucks in the US in the immediate future, Tim Hortons, the Canadian-based coffee and doughnut chain, is expanding to some 1,500 outlets across China with a focus on esports themed services, so maybe we'll see it sooner than we think.

OTHER LEISURE ACTIVITIES

Everything else from social networks to theme parks to traditional board games to even chess are being disrupted by the gaming industry in ways that have just begun to take hold.

Sources: Matthew Ball, VentureBeat, The Verge

HEALTH + MEDICINE

But it's not just leisure businesses that are being transformed by gaming. In June, the FDA approved the first prescription video game for kids with ADHD, and a new survey suggests that playing games may actually improve kids' literacy, communication skills and overall mental well-being. Credible medical journals have begun to report how playing video games can have positive health outcomes. Video games are even changing the way medicine is taught.

EDUCATION

Virtual educational courses on how to become a game developer have sprung up, and Stanford University has begun to study how using games as an educational tool provides opportunities for deeper learning. Amazingly, UK design company Blockworks created The Uncensored Library, a virtual hub built completely in Minecraft housing a collection of otherwise inaccessible journalism from all over the world. And during the pandemic, not to be deterred by shelter-in-place, graduating students held an entire graduation ceremony inside of Minecraft.

CONSTRUCTION + NATIONAL DEFENSE

The construction industry is also getting in on the action by building virtual construction sites using the Unreal Engine to bring high-quality, interactive visuals to life—letting clients experience what their buildings or facilities will look like, examining different layers for electrical, plumbing, and other systems, before they even break ground. The US military is even using games to not just recruit and train soldiers and enact war games, but to also deal with PTSD when those soldiers return from the real field of battle.

All of the examples above have happened in just the last decade. Imagine what is to come as gaming continues to evolve and expand.

THE BATTLE AHEAD

Companies in every industry need to realize that the gaming industry will continue to transform their businesses. It's not just a matter of appealing to younger demographics either. The changes we are witnessing make these industries more engaging and efficient. They make them more adaptive and dynamic. And they help companies better position themselves in a world where software is eating everything.

There certainly are challenges to address. Cultures of sexism and serious lacking of both gender and racial representation plague the gaming industry. Game monetization methods, specifically "loot boxes" where users basically gamble real money to win key in-game items have been the subject of government review boards. How games are marketed to users via social media marketing is now coming under pressure with Apple poised to eliminate the ability of game companies to target their whale players. And the battle to fight toxicity in gaming seems to be never-ending.

We may be a decade away from the realization of the Metaverse or even cloud-native games where millions of people can interact concurrently in massive game universes with zero latency, or where interactive filmed content like Netflix's *Bandersnatch* feels less like a *Choose Your Own Adventure* book and more like Rockstar Games' *Red Dead Redemption II*. However, that does not mean that there are not opportunities in front of us now where investors, companies, artists, educators, business executives, and those just looking to kill a few hours can focus their attention.

WHERE OPPORTUNITIES LIE

At MaC, we are looking for opportunities that push culture forward. Opportunities that close gaps vs widen them. Companies building the diverse and representative future we wish to see. In the gaming space, we are looking for companies blurring the line between gaming and everything else. These types of opportunities can take many forms, but we feel they will take a few specific shapes.

GAME CREATORS

Without games there is no gaming industry, and we feel the creation of unique, engaging and attention-grabbing IP will continue to serve as a pillar of this industry. Modding and genre tweaks have given rise to some of the most successful game titles of all time. The mod of Blizzard's Warcraft III led to Dota which gave rise to Dota 2 and League of Legends. ARMA2, an open world, military simulation game was modded into what ultimately became the battle royale game PlayerUnknown's Battlegrounds, whose massive popularity influenced Epic to adopt a battle royale sub-genre to their new game Fortnite, which gained over 10 million players during its first two weeks of release. Zynga's Farmville successfully leveraged Facebook's social network to drive viral user acquisition. Playrix brought a new approach to the saturated hyper-casual match 3 puzzle game category to create the huge mobile hits Homescapes and Gardenscapes. We are looking for gaming companies that are opening the gaming world to more diverse genres, narratives and experiences. We've invested in Artie that is making AR-enabled browser-based games, and Mighty Bear Games that brings a family-friendly, casual approach to the battle royale sub-genre via their hit game Butter Royale. These developers and others will not just create new categories, genres and sub-genre of games, but also expand what is even possible in a video game.

DIVERSITY IN GAMING

We have concerns about the lack of diversity in this industry, and put a premium on game studios that place an emphasis on diversity and inclusion. Several studies support the narrative that black populations have a higher concentration of gamers, and that people of color play longer on average than white gamers. Quartz has noted that 57% of video game players in the U.S. between the ages of 6 and 29 will be people of color in less than 10 years, and already people of color under 18 outnumber whites in the US. 40% of total gamers are women and 49% of mobile gamers are women. Despite these facts, women and people of color are drastically underrepresented in games. And as noted earlier, that lack of representation is also seen in the industry's executive ranks. If Marvel's Black Panther has shown us anything it is that communities of color have a strong desire to see themselves authentically portrayed as heroes in mediums they love. Making games that are inclusive on and off screen makes too much sense to us. Not only can it capture more attention and dollars from an increasingly large portion of the population, but it also delivers on much needed social change.

We previously invested in Aconite, a game studio led by Nadya Lev and Star St. Germain who will be releasing their first mobile title HoloVista later this year. And we have gotten to know several other diverse studios including Brass Lion Entertainment, Big Wolf Games, Dorian, Glow Up Games, DONTNOD Entertainment and Robin Games, but there are not enough like-minded companies out there. We know there are amazing developers from underrepresented communities in gaming gearing up to launch their companies and that excites us.

NEW CONTENT AND CREATION METHODS

Another area of focus is around studios, platforms and technologies that improve the way traditional content is made and distributed as well as enable new forms of entertainment. While we have seen advancements in visual effects in film and television content, for the most part, these mediums have not seen dramatic technological change since inception. The biggest disruptions in this space have been more around the distribution of content. However, we are now seeing content studios leverage gaming technology to drive efficiency and cost savings in production and vastly expand what is physically possible. As mentioned in the previous section, Disney's *The Mandelorian* leveraged Epic's Unreal Engine to create many of their cinematic backdrops (for which they won an Emmy), and *The Lion King* was shot entirely in VR leveraging the Unity game engine. Undoubtedly we will see many more worlds come to life on the big and small screens via emerging game technology.

CONTENT DISTRIBUTION + ENGAGEMENT

We have also noted how films and TV shows are now being screened inside of games like Fortnite, and how platforms like Twitch, Youtube and Facebook Messenger are changing the way traditional content is consumed, making it more interactive and participatory while increasing global reach. Our portfolio company Caffeine has taken the massively popular, but massively offline Ultimate Rap League community and brought it online and given it wings to spread virally around the world to reach new audiences. As Hollywood looks to increase the reach and monetization of its content it will increasingly look to the gaming world for solutions.

Source: *IMDB, URL TV*

NEW FORMATS OF CONTENT

We are just now seeing what kind of new content formats can be created by marrying traditional game design and play with more traditional content creation methods. We have invested in Within who has a wonderful interactive narrative division for kids called Wonderscope where kids can "play" an AR story on an iPad or smartphone. Playdeo and Unrd are merging gaming with filmed narrative content, and Solve HQ is building interactive true crime and mystery experiences. Telltale Games made what were essentially playable movies. Taking a gaming/interactive mentality to filmed narrative content unlocks an entirely new mode of storytelling that artists have just begun to explore. With a few generations of people who have grown up with games and the internet, and who have expectations of agency in the content they consume, we feel there is a sizable opportunity to expand the very nature of film and television. The billion-dollar film franchises of the future will be larger in scope, and much more participatory than the passive ones of today.

WIDENING ACCESS TO GAME CREATION

Companies that widen access to game creation in the ways that the Unreal and Epic game engines, the Google Game Builder, and sandbox platforms like Roblox and Minecraft have done are entirely appealing. We have made one such investment into Manticore Games whose CORE platform gives anyone the ability to create AAA games. These low or no-code platforms democratize game creation ability, and expand the community of game developers. And with that expansion comes developers from different backgrounds and experiences creating new types of games and game-related experiences. In the same way that Youtube, Instagram, Tik Tok and others launched an entire new class of content creators, these game platforms will give rise to a billion-dollar ecosystem of novice developers making a living through game creation.

SYNTHETIC REALITY

We are also looking for companies who will enhance how we learn, heal ourselves and protect ourselves in ways that leverage the underlying fundamentals of gaming. We explored above how gaming is enhancing the fields of education, medicine, construction and national defense and we expect that to grow exponentially. These changes will drive the merging of the physical and digital worlds into what BITKRAFT calls a new synthetic reality, unlocking enormous amounts of value.

THE METAVERSE

Finally, we are looking for companies whose bold visions involve creating new virtual worlds. Worlds where we will not just play games, but where we will socialize with friends, shop, learn, earn a living, perform, transform, travel and escape. In short, we are looking for companies that are building the future metaverse. Epic's founder, Tim Sweeney has said that he is looking to "create a metaverse, a place where all IP can live together, where all kinds of experiences can happen", and while Fornite seems like a perfect building block of a future metaverse, it is just that: one block in a castle that has yet to be built. The building of a metaverse will require successful companies solving real challenges in the areas of persistence, synchronicity, live mass concurrency, functioning economies, payments, interoperability, content and experience creation, and standards and protocols. Many believe that the metaverse will not only be the next great computing platform—one that rivals the internet itself—but also a virtual world where billions of people come to transact trillions of dollars.

This will be a multi-decade journey but the end result will be a transformed world, and one hopefully in which as a species we can see more of our similarities than differences. The blue-chip VCs of Silicon Valley made a name for themselves—along with billions of dollars—by investing in those early companies that enabled the global spread of the internet, and we feel that the next generation of top VC firms will earn their reputations by investing now in the companies building the metaverse.

CONCLUSION

We have the privilege of working with amazing companies reshaping culture and business through the world of gaming. It is our pleasure to interact weekly with so many amazing individuals from this industry. We feel the first 50 years of gaming has led us to this amazing inflection point where we have been given a glimpse of the world to come. But we truly feel we are just at the end of the beginning and that with the hindsight of another 50 years these transformations will seem quaint.

There is a lot of work to be done to ensure that this new gaming-influenced world is the kind of world in which we want to live. One that is equal and just. One that is kind. One that draws upon our best instincts and eliminates our worst. There is evidence all around us that gaming's influence on business and culture is spreading at an ever-increasing rate, launching the unicorn companies of the next ten years and we feel we are well-placed to take advantage of these incredible shifts.

When Michael Morhaime, the co-founder and former president of Blizzard Entertainment announced his retirement in 2018, he did so in a blog post that was a retrospective on his career in gaming. In it he said "When we started Blizzard we just wanted to make great games. What we realized is that the games we create are really just a framework for communities and human interaction. When we look back, what we often find that's most lasting and meaningful from our experiences in games are the relationships we create and foster." This is a perfect summarization on how we look at the gaming industry and the opportunities ahead. We are very excited to play a small role in achieving that vision.

ACKNOWLEDGEMENTS

ABOUT MaC VENTURE CAPITAL

MaC Venture Capital is an early stage venture capital firm focused on finding ideas, technology, and products that can become infectious. We invest in technology companies that benefit from shifts in cultural trends and behaviors in an increasingly diverse global marketplace.

MaC Venture Capital is the result of the merger between successful Los Angeles and Bay Area based Seed funds, Cross Culture Ventures and M Ventures.