

August 4, 2020 | Episode 185

# Matt Ball – The Future of Media: Movies, the Metaverse, and More

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EPISODE SNIPPETS

### UNDERSTANDING THE VALUE OF INTELLECTUAL PROPERTY

- The most valuable IP in the world is **massive, immersive fantasy worlds**
- The biggest IP used to mean the biggest movie or the biggest book. Now it usually means the biggest everything in every medium – book, film, video game, tv series
- Netflix has an enormous advantage over its competitors because they only need to produce content good enough to keep people (lower quality bar) rather than content that attracts new users (higher quality bar)

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### THE WORLD OF GAMING AND MEDIA

- On an hourly basis, video games are still monetizing at fractions of what standard cable television is on an hourly basis, which makes very little sense when you compare the degree of immersion and focus of the audience. **There will be big leaps in the monetization of gaming moving forward**
- **There are 2.1 billion leisure hours per day** in the United States. Today 75% of that is television and 50% of TV is 50+ age group. Percent of time spent on gaming is much, much higher in Gen X and Gen Z, so will see shift in how leisure hours are being spent

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### THE CONCEPT OF THE METAVERSE

- The metaverse is basically an **evolved version of the internet** that brings all of the technological revolutions of the past 40 years, much like mobile did, into a far more interoperable version of the world
- *The metaverse will be a combination of the following factors:*
  - **Persistent** – it never pauses
  - **Synchronous and Live** – think Fortnite concert for 12 million people
  - **Concurrency** – ability to have millions of people in any one place at any one time
  - **Functioning Economy** – people will be able to buy and sell goods and services
  - **Interoperability** – data/assets move seamlessly across platforms/protocols

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## UNDERSTANDING EPIC GAMES AND THE EPIC FLYWHEEL

- Epic founder and CEO Tim Sweeney is essentially trying to bring forward the metaverse and drastically increase the TAM of gaming. **He is doing this by decreasing his gross margins today in an attempt to fuel more money into the ecosystem to increase the TAM in the future**
- The Epic Flywheel is powered by the **Unreal Engine**. Then Epic built best-in-class properties (Epic Online Services, Epic Games Store, Epic Games Publishing) around it that don't require you to use the Unreal Engine but draw you into the Epic ecosystem

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## INVESTING IN GAMING

- First you have to understand that All media industries are a product of content, business model, and technology. **The technology usually comes first, that informs the business model, and that drives content**
- Matt's general thesis is that the massive learning of the past 50 years is that the content matters. But the real investing opportunity (for building enterprise value) is **picking the winner on business model or on the technology, rather than content**

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## INTRO

Patrick O'Shaughnessy (00:01:42): My guest today, Matthew Ball, is a long time coming. He's the former head of strategy at Amazon Studios, an investor, and probably my favorite business essayist writing today. In fact, I can't think of another author whose work I read as quickly once a new essay drops. Read his latest on the [past and future of Nintendo](#) and you'll see why.

Our conversation is all about the past and future of media. We discuss movies, music, television, video games, and the meta-verse. When I re-listened to this episode, I couldn't believe how much information was in Matthew's head and how easily he covered so many topics in depth.

So Matthew, this conversation has been, I don't know, two years in the making. Luckily, in those two years you've written about 25 more interesting things that we might explore today, so I'm glad that we waited. I thought it'd be fun for those that aren't familiar with you to sort of sum up your compulsive interest, which I would define as how people entertain themselves. How would you describe your compulsive interest?

Matthew Ball (00:02:41): I would say that the compulsive interest really surrounds this idea of entertainment. How we spend our leisure time. And the big realization over this past decade is the speed with which we've freed ourselves from any of the inherited or technological constraints that really defined what we did and why we did it. Television is a great example there, because the cycle times used to be so long. You moved from radio to broadcast television, to cable, and then rapidly in the last 15 years, we've seen the emergence of user generated content in YouTube and interactivity at the light level, HQ trivia, of Twitch style content, as well as just the innovations of getting outside of the paid TV ecosystem or linear broadcast in how Netflix and others have changed narrative.

So I think that compulsive need all surrounds this idea of *"how would you have told the story 80 years ago if you had all the tools available? How are those stories going to change in the next 10 years?"* And in some instances that is unlocking what you might call a narrative primitive, that's perhaps some of the reasons why the Marvel Cinematic Universe or the tales of Star Wars are so expansive today, so immersive.

And then in other instances, it's just what we depart from. There's a reason why procedural cop shows have declined over the past few years. And to another extent, there's an interesting reason as to the ways in which collective storytelling, or immersive storytelling, to some extent what you see in Minecraft or Fortnite, or even in Call of Duty or The Last of Us, looks a lot more like the first few thousand years of stories than it does the last 200 years. And that's a reflection of what was possible decades ago and what's now possible today.

“And what's interesting about intellectual property is as much as we talk about it, it's very clear what's at the pinnacle of IP, and **that tends to be these massive immersive fantasy worlds.**”

## VALUE OF INTELLECTUAL PROPERTY

Patrick O'Shaughnessy (00:04:19): One of the things that I so enjoy about your writing is this sort of twin focus on intellectual property and the entertainment value itself, and then the business models that wrap around that content. I thought it would be neat to sort of do a quick retrospective

and talk about what you think the most important changes to those two landscapes have been over the last 10 years, to sort of set the stage for our whole conversation about what might come next.

**Matthew Ball (00:04:47):** So I would say that when you take a look at those two trends, there are really three key elements that are important to identify. I think the first is the most obvious, which is the supremacy of intellectual property. And what's interesting about intellectual property is as much as we talk about it, it's very clear what's at the pinnacle of IP, and that tends to be these massive immersive fantasy worlds. That actually is far closer to what we used to focus on thousands of years ago, 10,000 years ago.

But what we've seen over the past 150 years is a massive concentration of our attention, or at least our obsession, to massive immersive fantasy worlds. As technology allows us to express that IP in more avenues, more persistently, with more frequency, with more immersion, with more user control and input into that intellectual property, that IP is getting bigger.

And I think one of the ways to think about that is what we saw more recently with The Witcher, which is a television series that was on Netflix, that is based off of a novel in the early 1990s from Poland. That book came out first in 1992 or 1993. The first time that it ever hit the New York Times Bestseller list was in 2015. That was coinciding with the release of The Witcher 3 video game. The second time it ever hit the New York Times Bestseller list was in 2019 when The Witcher television show came out. And at that same point, the release of the television series, led the game to triple its concurrent active users, that's the number of people playing at the peak moment. It led the Twitch broadcast audience to more than double, and the company behind it, CD Projekt Red, has seen its stock price go up some 40% or 50% out of the renewed value of that intellectual property.



**Matthew Ball continued (00:06:31):** That is a really interesting case study as to the extent to which we truly want our stories to never end. Most of these fans are duplicating their story experience. More recently we're seeing some stories, like Star Wars, extend into new mediums. Comics, fan fiction, television series in The Mandalorian, that's all part of the same canon. In the

case of The Witcher it's people who were saying, I've done it in one medium, I want to do it in another, and then I want to do it a third time with small variations.

Game of Thrones sold 15 million copies before the television show came out, it sold 65 million copies in eight years after the show came out. And so we've seen over this past century, or century and a half, this ever-growing need to immerse ourselves in these franchises.

That has two secondary elements. The first is, to understand the ways in which the audience is now taking control of that.

The way that I used to think about this is, we go back to the 1970s. How many millions of kids, in particular in the United States, spent hours and hours in their basements, in their backyards, with Luke Skywalker figurines, with sticks, with capes, imagining themselves as Jedi Knights. That happened here, it happened everywhere. And yet there was nothing Disney, or at the time Lucasfilm, which was partnered with Fox, could do to access that imagination. They could not monetize it, and only could they not, even the friends couldn't. You could build a fort, but you could never really translate your vision.

And so the consequences of interactivity in gaming, it's no surprise that the most successful games today are those that really hand over as much of the experience as possible to the audience, are those that say, "let's take the imagination in your head, let's translate it into something you can experience more personally with more visual acuity. Let's share it and let's enable it."

And the third and final consequence of that IP element that starts to really drive into that business model idea, which is, if you believe in the supremacy of IP, if you believe that that IP can transcend a single medium, if you believe that the growth of that IP ultimately comes from what the audience wants to do with it, you start to see that the battle between IP used to be intra-category. It was the biggest book, it was the biggest film, it was the biggest video game.

We are now seeing the point in which that biggest IP is becoming every medium. We're used to Lord of the Rings competing as a book, then as a film, Halo was a video game, and we are now at the point in which all of those properties, both to grow, to meet the audience want, but even from a defensive perspective, believe they need to be everywhere. And part of everywhere is with the audience, and that is going to change that very dynamic of intellectual property competition.

**Patrick O'Shaughnessy (00:09:13):** All that in mind, this sort of world building IP strategy, that's an interesting lens through which to view some of the major players. You've already mentioned Disney and the Marvel Cinematic Universe. One that jumps immediately to mind is Netflix, which doesn't strike me beyond, say, The Witcher, as a company that is intentionally building a lot of these sort of cross platform universes, but obviously it's been an enormously successful company. I'm curious how you square the two ideas of cross-media world building with Netflix's core strategy.

**Matthew Ball (00:09:42):** I think that's certainly true. I think the assessment of Netflix is probably more historical based on what they have and have not been able to do. I think it would be hard to imagine that the preferred outcome for Netflix is not to have expansive new franchises. Certainly if there were the potential for Stranger Things to become a universe that would expand into games, into interactive experience, into consumer products, that would clearly be a value add for them.

It's clear that intellectual property has a disproportionate impact on customer attention. This is one of the reasons why Viacom CBS has very much anchored its direct to consumer strategy on being a new Star Trek every week of the year platform. They're still years from doing that, but they've been explicit that's their strategy.

In addition, we should also keep in mind that Netflix has spent the past several years hiring senior leaders from Disney's parks department, from Disney's consumer products department. Reed Hastings has been clear that he considers the greatest competition to be Fortnite as opposed to Disney, and even still, he sees YouTube as more competitive than HBO.

And so certainly these ideas of asymmetrical competition or orthogonal alternate competition for mind share and for time, is of the utmost importance to that company. I think we can clearly say their success in building out big new IP has been relatively lackluster. But to some extent, assessing Netflix based on the productivity of its intellectual property to date is also to say that a brand new pharmaceutical company that's spending more than the established giants should be producing more hit drugs. This takes time, you need to build a pipeline, you need the operations, the processes, the options, frankly, on up and coming novels.

A few years ago they bought a company called Millarworld, which is coming from Mark Millar who's one of the most successful comic book writers of the past decade. And the goal there was very explicit. They said they were going to continue to produce comics, they are going to continue to grow the ancillary elements of Millarworld. But the goal was to use the Netflix platform to launch these new titles, and then to use that company as a source for intellectual property creation.

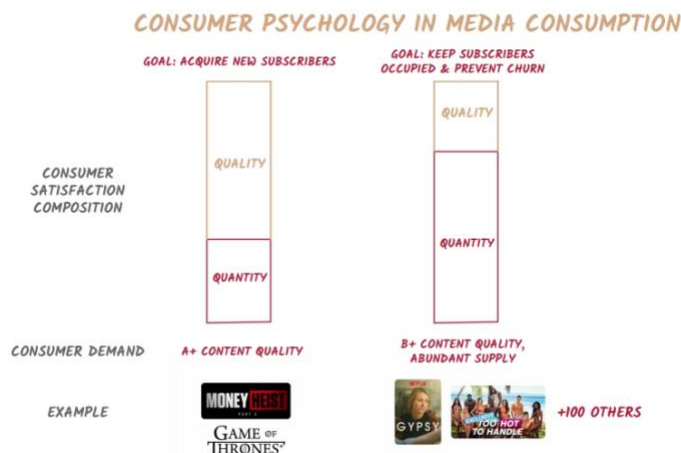
**Patrick O'Shaughnessy (00:11:47):** It's a fascinating company for so many reasons, not least of which the scale that they've achieved, and now Disney has of slid sideways into that same scale advantage. Say a bit about how important you think that is for the next 10 years. Another way of asking the question is, how hard would it be for yet another media or gaming upstart to compete with what seems to be a really entrenched, powerful, kind of several slots at the top?

**Matthew Ball (00:12:12):** I think there are two really interesting ways to think about that. On a preliminary basis, it's obvious that the time it would take for anyone to achieve comparable scale for Netflix is really outside of anyone's realistic time horizon, and in fact, most of the media companies will admit that themselves. Disney has clearly blown through its original estimates, but its five-year goal was to have 60 to 90 million subscribers. Netflix at the time Disney+ launched, had 90 million subscribers just outside of the United States, and 165 million globally. HBO has leaked its plans are to reach 50 million subscribers by 2022 or 2023. Netflix of course had more. Peacock is targeting 35 to 50 million paid plus non-paid users. And of course, Sky just has no practical path to achieving comparable scale.

So by the admission of all of their competitors, Hulu also being a domestic only company, Viacom being predominantly US only with its direct to consumer, there's simply no way to imagine another company that by 2023 or 2024 has so significantly outstripped their own leaked ambitions that they would have 2x'ed and enough to achieve even Netflix today versus Netflix tomorrow.

But what's interesting about that scale element is two things. One is to understand consumer behavior in leisure. The other is to understand the impact for creating intellectual property and hits. The first is where we get back to that classic idea of the "homo economicus," or the rational economic man. And I think there's this general perspective that has proliferated in Hollywood and in the analyst community that Netflix's content isn't good enough, that it's getting worse, that competitors are coming out with more content, better content, the same content on a new platform. And the expectation has been that that would lead to attrition.

**Matthew Ball continued (00:14:01):** So not necessarily does a new competitor need to get more than Netflix in subscribers, but Netflix is going to cede some of its customers. The truth of the matter is, in most media subscription services, consumers aren't rigorously price or leisure optimizing. Think about what the rational user behavior would be. All of us each month should log into each of our subscriptions and terminate the subscription at the end of the month. Every month, we could then renew that decision and say, I have \$40, where do I want to spend it? In most instances, we might renew that old subscription, but we might even just have three or four days where Netflix lapsed and we didn't need it, so we didn't use it, and guess what? We just saved more than 10% of that month's fee.



No one does this, of course. And to some extent, even for utilities like Spotify, it would be rational to do that just to maximize your paying days to your using days. Consumers don't do this. The truth of the matter is most of us don't want to invest the extra 20 minutes in finding the perfect thing to watch, we just want to watch what makes sense at the time - whatever is good enough? Another way to think about this is if we highly valued every minute of leisure, most of us would buy a \$4.99 rental rather than watch something that looks just okay on a service that we already have. Understanding that behavior is important to understanding the resiliency of these market leaders.

And that connects finally to the growing asymmetric performance of content on these services. The fact that Netflix has not just enormous advantages in the number of subscribers it has, but enormous advantages in the frequency of use of those customers and the total engagement, means that their ability to launch content to success, exceeds that of nearly every other platform on earth.

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Tiger King, had that been on Stars or Epics or Showtime, probably would never have popped. People don't open HBO frequently enough, and perhaps not HBO, but Starz or Showtime or CBS All Access, and not enough people have it to begin with. And when they go there it's to watch Star Trek or Twilight Zone. The fact that Netflix has that reach means that they can actually produce hits and franchises at a greater degree on an equivalent quality basis of other services.

That advantage is enormous in a content business, because let's think of what that means. If you are a laggard in subscribers, how are you going to catch up to Netflix? Most of them plan to do it on a content basis, but if Netflix can launch worse content to greater success than you can, and because of its greater scale it can economically do that, that's a huge advantage. And in my mind, that's one of the massive reasons why the company has been so resilient, even as content has been pulled out of their ecosystem.

**Patrick O'Shaughnessy (00:16:54):** When I was young, movies and music, where the answer to the question of what do you do for entertainment? It feels as though those categories have almost become marginalized in this world of streaming services and games. And before we spend what I think will be a pretty substantial chunk of our conversation on those second two categories, I would love to hear you riff a bit on the fate of movies and of music and how they fit into this vision of the next 10 or 20 years of consumer entertainment.

**Matthew Ball (00:17:25):** I think in general, when you take a look at analysis of the streaming wars and why it makes sense for Netflix to spend \$200 million on The Irishman, or for Apple to spend \$200 million on Greyhound, which is their new Spielberg and Tom Hanks release from this past weekend. It's surprising because people look at the economics of a 60 to 100 million dollar television series that could become a franchise in comparison to a one-off that has one eighth the run time and twice the cost.

“Netflix can launch worse content to greater success than you can, and because of its greater



scale it can economically do that, that's a huge advantage. And in my mind, that's one of the massive reasons why the company has been so resilient, even as content has been pulled out of their ecosystem.”

And I think ultimately you have to understand that this is a durable model. People love this content. They will forever watch films, they will value those films, and irrespective of what happens to the box office or whether theatrical consumption moves from well, frankly, the theaters to all at home releases. I don't think that that format is going to go away. People still like the two hour narrative, and it's not clear that the trade off of extending that into longer run times or more expansive narratives with more detail, is always additive.

And so as a format, I remain very convicted. And yet at a broader level, we have to look at the overall transition of what the dominant cultural ideal or narrative is. And I think that it's important to actually put that in context of what we've seen from the theater. We look right now at two different transitions in the theatrical window. One is the more recent collapse of its viability that relates to actually whether you can be in a theater, that's COVID. And we look prior to that as to whether or not the underlying economics of the film industry can survive blockbuster-ification, declining attendance, increasing competition from [SVOD](#) and Disney+ and direct to platform releases.

**Matthew Ball continued (00:19:07):** This has happened, of course, to the theaters before. In the 1930s and the 1940s, the average American was going to the movie theaters 40 to 70 times per year. There was about one fifth of the population that would go more than a hundred times per year. And that's because the role of the theater was video, it was news. You went during the war to see whether or not the effort was going well and what was happening in which theater. You went there for education, for laughter, for all narrative.

And of course over time, the role of the theatrical window, the theater itself, changed. And then over time, what it moved to, television, became its own more dominant model. It's of course a little bit flawed to think that that format is going away as long as audiences are interested in two hour narratives. But again, we are now starting to see this idea that perhaps for an entire new generation, television is giving way to other formats, and that can be as mimetic as TikTok, as short form as TikTok, or as immersive, and experiential, as a Fortnite.

And so just like TV, I'm the last person to tell you, as bullish as I am on interactivity and gaming, that television is going away. What I'm fairly convicted on is the idea that there are 300 million Americans who were spending five and a half hours per day watching traditionally defined television long form. I don't think that in 2030, 2035 that's five and a half hours a day, I think it's probably three and a half to four hours. And most of that substitution is going to go to interactive gaming and social.

**Patrick O'Shaughnessy (00:20:38):** Say a bit more about music. It's such an interesting category because it seems to be the only category that is truly on the go, meaning music, and I guess audio in general, you can do in places that you couldn't do all this other stuff. And so it seems to have unique characteristics, and obviously Spotify has sort of been the dominant player here. How much do you think about music as a source of entertainment and wonder about how that may change in the future?



**Matthew Ball (00:21:04):** Spotify is an incredible example because we have to take a look at the equivalent reach penetration and significance of that medium. We are talking, again, about an industry that I think last year reached 285 million Americans, and for an average of two and a half hours per day. I think irrespective of whether you want to speculate as to the monetization potential, the ability for alternate monetization through talent services or micro-transaction, or whether or not there are other things that Spotify can do to gamify that platform, or perhaps just the role of podcasts. It's clear that that is a profoundly important medium.

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Any history of consumer digital platforms will say that when you have a platform that is reaching tens, if not hundreds of millions ultimately, or potentially a billion customers, most of whom are, last I saw, listening to Spotify for an average of 130 minutes per day. That is instructive as to the value it provides. The significance of that relationship overall, and I mean that separately. One is economic, the other is investment from the user.

And then thirdly, the big lesson is that you can do that to build out many, many other products and services. The value of that attention is enormous. And as I mentioned earlier, if consumers are indeed sticking to the platforms in which they're already engaged, that tells you that Spotify too will have outsized opportunities to transition that audience to new things. What I'll tell you is particularly interesting about the on-the-go element is, I recall your interview with Daniel Ek from a few months ago, and he's talking about the intimacy of spoken word and music, to your point, on-the-go, in your ear, there's something very close to it.

What's really interesting to me about the video game space now, is we're seeing a progressive expansion into what you might actually consider Spotify's time. The past 15 years in gaming has seen most of the growth come from mobile. Since 2007, the gaming industry globally, excluding China, has doubled. 80% of that growth has been in mobile.

In more recent years, we have seen most of the traditionally defined gaming category, AAA games, PC, console, what we would currently define as the Fortnite-cluster, have seen enormous growth from being cross-platform. That's connecting not just competing ecosystems and platforms such as Sony and Microsoft, but also putting full versions of their games on mobile devices. So that, irrespective of whether or not you can play the richest most immersive version of Fortnite, you can participate on the go on your iPhone.

**Matthew Ball continued (00:23:40):** That has driven enormous category growth that reflects the ability to tap into some light mobile behaviors and mobile device capabilities from the traditional high-end gaming capability. If you look into the East, or what's happening in Asia, in Vietnam, Japan. We are seeing that the sophistication of those mobile games is growing frequently. As the users become more adept at complex gaming, they become more immersed in gaming culture. And so both of those sides of the industry are kind of converging.

To bring this back to Spotify, the biggest new innovation to me, and this is perhaps a bigger theme for the rest of today, is this idea of what you do with that audience beyond just gaming. About a year and a half ago, Fortnite launched a mode called Just Chatting. Just Chatting as an extension of their social hangout feature. It's the idea that if Patrick, you and I are already playing Fortnite to hang out, what happens when you actually can't play? Your device can, but you can't play for one reason or another. You might actually be driving, you might be on the bus, you might have a poor signal. Just Chatting allows you to listen into the game. So there might be five of us playing, or four of us playing in the case of Fortnite, but Patrick, you're still participating, you're part of it.

There's a huge investment right now of the major developers on the mobile and the console side to say, let's build more features like this, where we can reach mobile players on the go, out of context, and perhaps beyond just connecting their audio, let's immerse them in the experience. What can Patrick actually be doing that doesn't undermine the integrity of the game competitively, but is additive, that enhances. Can you, can your parents, can your friends, can your followers on Twitch actually be helping in the game play?

And so I think funnily enough, if you were to say the bull theory for Spotify, which is a company I deeply admire, and I'm very bullish on, that intimacy element, that on the go, is actually something that gaming is very interested in.

## THE WORLD OF GAMING

**Patrick O'Shaughnessy (00:25:40):** Say a little bit about the role of age in all of this. I feel almost like I'm right on the knife's edge, where I'm 35, I grew up playing a lot of video games. I don't really, as an adult, play games. It seems like everyone younger than me is firmly ensconced in that world and everyone older than me is sort of scratching their head. Do I have those demographics roughly right? And what else should we know about the role of age in this media transition?

**Matthew Ball (00:26:07):** The age element is certainly there, and I will tell you that one of the biggest bull theses for me is actually not necessarily just the monetization gap. To do another reference, Gavin Baker has been on your podcast before, and he's a good friend. And he talks about the fact that on an hourly basis, video games are still monetizing at fractions of what even standard cable television is on an hourly basis, which makes very little sense when you actually compare the degree of immersion and focus and distractibility of the audience. And so there's a big argument for bullishness just on monetization.



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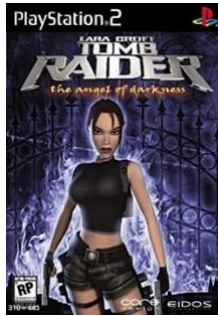
I actually see the biggest potential in exactly what you've just mentioned too, and it's interesting to quantify that. The generational divide is enormous. It's not as bad as people think, but as much as there's decreased penetration of gaming as you go up the age pyramid, there's an even more distorted gap of time.

And here's how I think about it. In the United States, there's about 2.1 billion hours per day of leisure time, that's deduplicated. Which is to say, let's not double count playing Candy Crush while you're watching television. There's 2.1 billion hours. 75% of that is television, and 50% of television is 50 plus. And about 30% is 65 plus. You don't need to get into precise survey paneling to know that the most consumptive demographic of television, the most leisure-inclined that demographic is the one that plays the least video games. And on the reverse, we know that Gen X and Gen Z games more than Gen Y does.

By some reports, and I always find this hard to believe, but it seems to be continually proven, 50% of nine to 12-year-olds in the United States and Canada, New Zealand, Australia, play Roblox or Minecraft alone. And so that tells you that there's this enormous demographic shift that's happening, that means that each generation is adopting gaming more significantly. And as they age up, their media appetites grow.

The last thing I think most important element, and this gets back to our earlier conversation about the evolution of media formats, is the cost of being a little behind in gaming when you're an investor, when you are in media, is huge. Let's take a 15-year view.

15 years ago, cinema was not as sophisticated as it is today. Choreography has advanced enormously, think about what a stun the John Wick film was when it came out in, I think, 2014. Universe Models, Epic Fantasy had emerged tremendously. But 13 years ago, the first Iron Man came out. The first Iron Man and the most recent Avengers movie or Spiderman, which came out in July of 2019, not that different. It's evolved from a narrative perspective, the graphics are better, it's a little bit more sophisticated in terms of how it interacts in the Marvel Cinematic Universe into the Disney flywheel, but it's pretty similar.



If you have taken the past three years, five years, certainly 15 years off in gaming. You are talking about enormous, enormous gaps in every element. What you can do, how it looks, how you monetize, and why people play in the first place. I like to tell people that I think the primary problem when it comes to why Hollywood misunderstands gaming today and has missed the opportunity for years, comes from a fact that most of the CEOs, their primary exposure was in the PlayStation 2 generation. They remember their sons or daughters when they were 14 playing a Lara Croft, and their perception is of a overly-bosomed, pixelated woman, shooting people. And the degree to which that medium has evolved over the past 15 years, it's just hard to encapsulate in a single line, but it's unlike that we've seen in any other category.

**Patrick O'Shaughnessy (00:29:51):** You mentioned Iron Man. What do you think the legacy of the Marvel Cinematic Universe is right now? What is the most interesting aspect of that highly successful experiment by Disney?

Matthew Ball (00:30:02): I would say the most interesting element of that is actually everyone who tried to copy it after. We actually forget how many other companies tried to emulate the Marvel Cinematic Universe model, in part because most of them never even got off the ground, half were canceled in pre-production. We look at the struggles of the DC Cinematic Universe as the primary counterpoint, but every studio tried this.

I'll use one example. In 2014, Universal reshot half of the movie Dracula Untold to try and turn it into a Universal Monsters universe. That was going to be Wolfman, it was going to be The Invisible Man, it was going to be Zombies and so forth. The movie barely hit the block.

Three years later, they decided they were going to reboot it again. This is The Mummy, if you can remember it. And not only did they launch it with the explicit goals of being a cinematic universe, they did spreads in Vanity Fair, where they precast the next five movies, Javier Bardem, Johnny Depp, Angelina Jolie, Tom Cruise, they're all in a shot together. And the very first movie literally positioned Russell Crowe in the Samuel L. Jackson role as Dr. Jekyll and Mr. Hyde partnering up with Tom Cruise, who's a zombie. And we forget these because they had such a little social event.

But what's so fascinating to me about the Marvel Cinematic Universe, is its success is so unprecedented and no one has come close to it. Power law differential actually downplays how much bigger and more successful that franchise is. And I think that gets into that core ideas of, as these franchises become more unbound, more expansive, more immersive, as customers can own more details and grow their relationships, it is squeezing ever more air out of the competitive landscape. Think about the impact of the Mandalorian. Try launching a space opera television show based on new IP in a post Mandalorian world. You used to have television off from Star Wars. You used to have television off from Marvel. You don't anymore.

**Matthew Ball continued (00:32:12):** And that big lesson basically means that these positive feedback loops are getting stronger. And I'll tell you the last way that I think about this, is let's think about how you would want to contend with the Marvel Cinematic Universe. You say that franchise continues to increase its output volume, and to put this in perspective, the Marvel Cinematic Universe launched with 1.2 films per year. It finished with three films per year. And during that time, the average cost went down, because they

now contract in for more films so the talent cost goes down, and the unit average haul has gone up 50%. Imagine saying you could grow your output two and a half times while simultaneously increasing your revenue by 50%, while decreasing your cost in a creative product. That's incredible. No one has ever seen this. And it absolutely, this abuses that old adage that in Hollywood, nobody knows anything.

To bring this back, if you say, "How do we compete with the Marvel Cinematic Universe?" Understand you're not just competing against something that is starving the market of oxygen from its volume. And in 2022, they're planning to go from three films a year to four films per year, plus two to three television series. Which means the Marvel Cinematic Universe will itself be a service. You will have a 40 weeks a year with new Marvel television content. And so ultimately you need to compete to steal oxygen from that. You somehow need to find a way to substitute for 15 years of emotional attachment.

A fan might actually like Batman more than Tony Stark, but they just spent 13 years and 15 films and dozens of hours bonding to Robert Downey Junior's performance. 15 years is the amount of time in which a child goes from pre-puberty, through puberty, into adulthood. And actually trying to compete just with the volume, with the quality, with the reach, with the potency of the Disney flywheel, and then needing to somehow accelerate that emotional attachment, is profoundly challenging.

And I think this dovetails nicely into why gaming IP is starting to become a primary contender, and it's because it is the only content category that can actually scale. If you want to compete from the Power Rangers, which tried to launch a cinematic universe, you'd say, "Okay, the most we can do is three films over the next five years." During that time, Marvel's going to put out 40 hours. How do you compete? The only ways to find a medium, a property, that allows you to actually immerse as deeply, as scaleably, as richly, and with deeper audience ownership of the characters. And for the most part, that seems like games.

## THE METAVERSE

**Patrick O'Shaughnessy (00:34:49):** So it obviously begs the question of the topic that I've been the most excited to spend a long time with you on, which is this notion of the metaverse. We've danced around this topic a lot. A silly sounding word kind of, and I think some people don't take it seriously. I know Gavin does and some of our other mutual friends do, but I think you've thought and written about this more than anyone I'm aware of.

**It's the perfect wedge to get us into a conversation on gaming, because it does seem as though all signs point towards some version of a metaverse being dominant in this entertainment landscape that we've been talking about. So maybe to begin, you could introduce the concept as you see it to the audience, so that we can pick apart its various aspects.**

**Matthew Ball (00:35:28):** Certainly I think under COVID, this topic of the metaverse has certainly accelerated and there were a lot of confluences. I think a lot of people think of the metaverse as virtual worlds, those certainly have existed for decades. They think of it as UGC content creation platform, such as Minecraft, that's basically an interactive or immersive version of a YouTube. Others think about this from an avatar perspective. You have a virtual version of you that exists somewhere else that you have control of.

All of those are interesting elements, even AR glasses come into the conversation about the metaverse. But if you're talking about the metaverse, that's basically like saying Google is the internet, or iPhone is the internet, or the Yahoo directory was the internet. It's not entirely wrong. It's certainly an important element of the consumer experience of it or what they might describe it, but it completely misses the idea that the internet itself is a series of tubes in the ground, standards, protocols, technology, and ideas that were formalized into infrastructure.

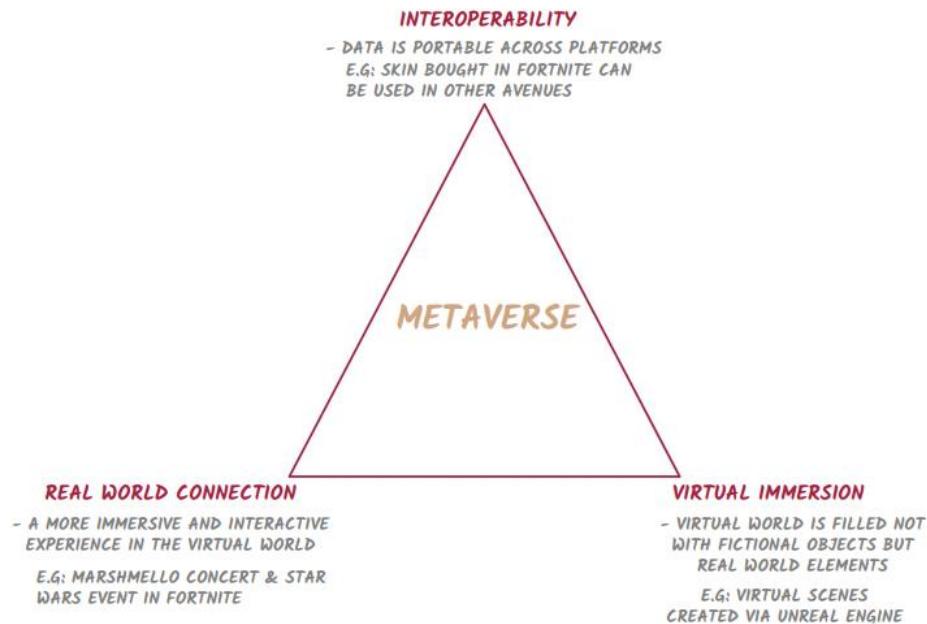
And so the best way to answer this metaverse answer is to go back to the internet. The brilliant thing about the internet is in the name, it's interconnected networks. And the internet works, and by works, I really mean it thrives, it scales, it's a delight. It's a source of enormous value because of its commonalities. The wide range of standards and protocols that allow for extensive communications, sharing, creation, discovery that takes place on a myriad of devices through any networks, modalities, resolutions, and so forth. That idea of why the internet is so brilliant, is encapsulated in the idea of the hyperlink. The hyperlink is why you can start reading in the New York Times, end up following a rabbit hole that takes you to nine other different sites. It's how you discover new writers, new ideas. You might have actually met me because of a hyperlink that was on another site that went to another site and brought you to me.

That's because of how the internet was designed. And that's because the internet was designed to share files from public universities and nonprofits. Today's virtual existence does not work that way. The analogy that I use is like going to a mall. There are a number of different shops you can go to, but in today's virtual world, especially when you're talking about interactive, immersive worlds, like Call of Duty or Fortnite or Minecraft or Facebook Horizon, it's a version of a mall where J Crew requires a different identity card to let you into the store. Where J Crew uses small, medium, large, size zero, one, two, three, four, but Banana Republic uses an entirely different schema. Where they have proprietary currencies, where they require different credit card vendors.

**Matthew Ball continued (00:38:22):** The consequence of that, imagine if you went to a mall, people would not go, the economy would not function as well. The investment that would come from the suppliers who would say, "We are a shirt manufacturer, we need different labeling. We need different size convention. We need different sewing equipment." All of that has friction. That doesn't exist today. And so the core idea of the metaverse is elements of more people in a virtual space where you interact, where you participate in an economy, and we can unlock all of those individual ideas. But the core idea is extensive interoperability in virtual immersion and digital connectivity of the real world to that. So that the things that you build in one place go somewhere else, that idea of data portability matters. But so too, does the idea that you might buy an outfit or an emote in Fortnite and bring that into Minecraft.

And any market observer will understand that as the use cases proliferate, as the number of applications grows, as the number of places to sell grow, the amount of investment creation, economy, value will all grow too. And the metaverse is basically encapsulated as an evolved version of the internet that brings all of the technological revolutions of the past 40 years, much like mobile did, into a far more interoperable version of the world.

## ELEMENTS OF THE METAVERSE



**Patrick O'Shaughnessy (00:39:53):** Say a bit more about how that might come to fruition. It sounds obviously true, meaning if there was greater portability and ability to bring things, identity, items, wealth, whatever it is that you're carrying between stores in your analogy. When might that happen and who would be behind that happening, because it strikes me as an incredibly big wall to climb.

**Matthew Ball (00:40:16):** Right, and certainly it's going to be much like the internet or mobility overall, which is to say there will never be this point where all of a sudden we say, "This was before, and this is post metaverse." It will slowly emerge. And Tim Sweeney, the founder and CEO of Epic Games will tell you that we're still decades away.

There are a number of different companies that will bring it to fruition. And in fact, the mere premise of interoperability means that you will not actually see a single participant realize it. Apple could have most of the innovations, but that would be like setting the standards for credit cards and fees and access in a mall that no one else participates in. Of course the metaphor becomes a little bit strained, but the whole idea is everything that exists today has to integrate and build in a collaborative or semi-collaborative fashion for that to work.

And so what that means is the following. Today's existing players that are so deeply rooted into the world are virtually guaranteed some participation. Epic is clear that Unity, their primary competitor for the game engine business, basically will have to be a foundational "founder" of the metaverse, by the nature of the fact that most of the world runs on, or most of the world's mobile games run on the metaverse. And if games are the starting point, then there's no way to back them out. And so we have multiple different parties that are coming here. There will be device owners, there will be ecosystems, there will be rendering engines. There will be elements of data portability of commerce. I think a lot of people believe that the blockchain is going to be an essential component of this.

But I think ultimately when we take a look at the time horizon, it's important to understand the enormity of the technical challenges. And to some extent, actually interoperability is one of the easier ones. In theory, Facebook and Amazon and others could say, "Let's do data portability. Let's allow you to take your shopping list from Amazon and export it to Walmart. You can bring your contact list out of Facebook and bring it to Snapchat." And that would be a very small part of bringing the metaverse forward.



I think there are three core elements. The first is actual mass concurrency. And by concurrency, we're talking about the number of people who can participate in a shared experience, to the extent you're talking about existence moving online or the economy moving online. And by online, I mean into a virtual world of labor. You need lots of people to be there. When Fortnite managed its [enormous concert with Travis Scott](#) earlier this year, they boasted about the fact that there were 12 and a half million participants. They had to (A) cap that participant list at 12 and a half million,

the technology could not take more reliably. And (B), there actually weren't 12 and a half million people participating together. There were 12 and a half million people participating in individual versions of that concert, capped to 50 participants each, not all of which were even running in identical synchronicity.

**Matthew Ball continued (00:43:12):** And so imagine what that would be like in a world today. You can all be in the mall, but you can't be there together. And they're not really in sync, something else has happening. Obviously the metaphor breaks down. The technology required to do that is very far away, and the business case to realize it isn't quite there yet either. Imagine, Patrick, if you and I could go to the 1980s and say, "Let's lay the entire country down with fiber optic cable." Cost 400 billion, obviously that would have enormous value in 2020, but it would have taken us 20 years to actually commercialize that. And the capital required to get there, wouldn't work.

The second element is actually to think about the standards, protocols and agreements that are required. Standards processes, as I think Marc Andreessen has spoken a lot, is messy. Anyone who has significance will drive their own processes, their prioritizations, their roadmaps. And so you actually need to get common language. Think about how messy the internet is just from images. Most people can't tell you why we use .jif versus .jpeg, .ping, .bmp. All of these exist and they're flawed, they're not perfect. It's the reason why one thing doesn't port to another. The rise of API standardization is part of that. But again, the technology for concurrency can be there. The desire for interoperability can be there. But if you don't actually have the right commonalities for that to work, you're not going to get there anyway.

The last one that I think is really interesting is actually just this technical question of what we call forward-compatible code evolution. One of the things that's amazing about virtual worlds is you have advancements in technology for simulation. A video game is a simulation. The metaverse is understood to be a persistent simulation. And that means that over time it has to be continuous, but we also want it to evolve. We want to be able to do more things. But imagine a world, this world, where every now and then the physics were upgraded. Imagine what would happen to a building where all of a sudden we decided we had to re-optimize gravity from 1 to 1.1. That's a huge challenge. Now, your response would be, don't change gravity. But the truth is with code design is you will find out new standards are needed, that there are inefficiencies that preclude data transmission, and yet you have to inherit it.

**Matthew Ball continued (00:45:38):** I'll tell you a really great example from Ebbe Altberg at Second Life or Linden Lab, that I think is unbelievably cool. He told me the story of in Second Life, a user created a business model or a business, it has a fully functioning economy that's been around for 25 years. And this user's business model allowed other users to come to his house, to purchase or subscribe, or purchase a horse, and then purchase a subscription to food for the horse. This is much like we're seeing in Animal Crossing.

And yet Second Life didn't know this was happening, the whole premise is no one in the United States knows every commercial transaction that's happening. And so Second Life needs to upgrade its physics. When it does that, it doesn't know it, but there was a flaw in the code evolution that led the horses to sliding when they bent down to eat the food. As a result, the horse couldn't eat, the horses couldn't eat, and then they starved.



## READ MATT BALL'S ESSAY ON THE METAVERSE [HERE](#)

Key to the metaverse and all of these standards processes is that you need to enable the content, the portability and the business model, but you need to make sure that it also maintains the flexibility to evolve and grow without breaking. If physics break, if you purchase something and then because of what God does, the platform or the consortium, breaks the market, you will have distrust in the market. You will have additional friction. Nothing will be priced with the expectation of indefinite buy-ability, it will be based with the implied discount of what if the world breaks. And as a result, both sellers and buyers will stop investing. You can imagine how that would work.

And so that is honestly one of the biggest challenges. And as anyone who has participated in a consortium will tell you, coming to an agreement is one of the biggest challenges, deploying that is another one. And as the metaverses becomes more valuable, more important, the consequences of breakage will be exponentially larger.

**Patrick O'Shaughnessy (00:47:37):** It might be helpful to say a bit about what the metaverse does not mean in your mind. I love the way you framed it so far, in I think a way different than how people asked on the street would respond for what the metaverse means, which is some sort of persistent game. What are some examples of things that people might mistakenly think of as the metaverse? And then I want to get into the investing side of, if this is going to happen, what one's posture would be as an investor.

**Matthew Ball (00:48:04):** I think critical to that is, as I mentioned earlier, differentiating between all the atomic parts of the metaverse that are relevant, but not the thing itself. And that can be, is the metaverse a virtual world? No. It's going to have a virtual world, but that's just going to be an element of it. Is it going to be virtual reality? Virtual reality may be a way in which you interact with it, but the metaverse will be invisible in some instances, that's where you're talking about integration into spatial and location-based equipment. You might go to a store and it exists in the metaverse and you're not seeing it altogether. And if you wanted to see it, you might not need to use VR, that's an access model. You might choose to use a browser on your smartphone.

And similarly, people think of it from the perspective of it's a virtual theme park, which is an idea I'm fascinated with, but a virtual theme park is centrally programmed. It is something where there's finite numbers of attraction, where there's a chief engineer, and that chief engineer decides the monetization, the constraints, the viability. This is really like talking about what if the world were UGC, which in some instance it is. Where the economics of scarcity, of access, of investment, of brand, of scale, all matters.

These are just some of the ideas, but I think one of the key elements here is actually this idea of, is it just an app store? Those that get over the idea that well, maybe Minecraft or Roblox isn't the metaverse, but it's an interesting expression of it. Do we just mean it's a new way to access content? You go to Fortnite and you buy a ticket to a Travis Scott concert. You watch a movie screening of a Christopher Nolan movie, or you access a custom game that someone made. Is that just an app store? And I think Tim Sweeney has the most interesting response there, which is, if all the metaverse is as a new app store, it's a failure and it's not the metaverse. It's not bringing anything richer or more magnetic. It has to unlock things that were previously not possible in commerce, in creation, and just the general idea of where people produce value and how.

**Matthew Ball continued (00:50:16):** And I think one of the funny things about this, Patrick, is to some extent, I think a lot of investors, and this is where it's interesting to talk about the investment thesis. I think a lot of investors think about this and they're like, "Well, that's a crispy vision. And I don't really know what

that means and I can't invest in it." And there's the old Marcus Aurelius quote that is basically epitomizing the idea of "if you can't articulate it, you don't know it." And certainly I might know. But to another extent it's like predicting what the internet of 2020 would be in 1990. We knew certain elements of the internet in the nineties, in the seventies, the idea of hypertext was invented in the fifties. But while you can understand the certain technical requirements and capabilities of the metaverse, you're missing the soul.

**“If all the metaverse is as a new app store, it's a failure and it's not the metaverse. It has to unlock things that were previously not possible in commerce, in creation, and just the general idea of where people produce value and how.”**

The way to think about that is Snapchat and TikTok. We've known about the internet, or we've known that the internet would include file sharing, UGC, messaging. People envisioned live chat in AR decades ago. And certainly we've known that they were going to be very critical in the future, but Snapchat and TikTok exactly weren't envisioned. And even those who knew what TikTok would look like, didn't quite understand the economics, they didn't understand the models, and they certainly didn't understand the memetic nature of those services.

And so I think we can look at these ideas of the metaverse and say, "It's persistent." There's a virtual reality that connects to the real world. And like, "I don't really know what that means." And the truth of the matter is, no one does. That's why Snapchat didn't exist until it did.

And I think the most interesting way to think about that is actually to start with Facebook. There is nothing Facebook developed in 2005 that you could not have made in 1999. No one did, the mere fact that Facebook emerged when it did, started to reshape consumer expectations around services, around what was possible. Just as we will know the technologies exist long before they're realized, they will be realized long before we actually see what they get us to do.

## EPIC GAMES AND THE EPIC FLYWHEEL

**Patrick O'Shaughnessy (00:52:15):** As you think about the pieces of all of this, I'd love to talk now about some of these gaming companies. I think Epic is the one that I know you're extremely interested in and wrote the definitive series on. And I certainly am too, in large part because of its founder and CEO, Tim Sweeney.

I'd be curious to hear your take on his role in all of this. I found this really interesting tweet, I think it was you that pointed me to it, where someone asked him, "Is Fortnite ..." So Epic made Fortnite, "Is Fortnite a game or a platform?" And he said, "It's a game, but come back in a year and ask me the same question again." Obviously he seems to have a vision for all this and to be a key player. Can you describe his role in what we've been talking about?

**Matthew Ball (00:52:55):** Tim is particularly fascinating, because he very much seems in some way, a reversion to the early 1980s, 1970s, ideals of a technologist, while also seeming like a more evolved version of the long-term thinkers of a Jeff Bezos. By that I mean, he is dead set on creating the underlying infrastructure that will allow for enormous, enormous "TAM" creation, or total addressable market.

And I think when we take a look at those who have built for the long run. Bezos is a fascinating example of someone who takes a look at underlying infrastructure and says, "I'm going to forge forward. I'm going to build scale. It's going to become a platform. It's going to drive industry." AWS being an amazing example. Invested in the future that produced more value for the ecosystem, it also provided Amazon with an

incredibly lucrative market. One that was a very difficult for Amazon to lose market leadership of, and of course grows in value.

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**Matthew Ball (00:54:03):** Tim is doing something that seems even more radical, which is he continues to build out technology, grow the capabilities, the breadth, the depth, the scope, and the quality of everything that Epic is doing while simultaneously destroying value in all of those segments and giving away more and more of his value away for free.

I'll give you a good way of thinking about this. Epic currently charges a 5% royalty on the Unreal Engine. The gaming industry today is doing about \$120 billion per year. So, if you assumed that Epic had 100% penetration, Nintendo used Unreal exclusively, Activision Blizzard used Unreal extensively, every mobile division or every mobile gaming company did, they'd be generating about 6 billion. If you assume that every single gaming company sold their games exclusively through the Epic Games Store, they would be getting another 12% of that total transaction. So you're looking at an excess of \$12 billion in this instance, but in this case, Epic actually gives you a net back on your Unreal license so you should be paying 12 plus 5%, but instead, you're just going to pay 12% and you get Unreal for free.

Most people are surprised to understand how much Epic keeps giving away, how much they keep investing in new categories. And certainly, you can take the skeptical view, which is to say, "They're cash rich. Tencent is a shareholder. They've got a money pump from Fortnite and this is really just a modern day version of embrace, extend, extinguish that you saw from Microsoft." At least the way that Tim portrays this, and I think that this is consistent with the degree to which he isn't undercutting margins, he's zeroing them out altogether. He is publicly saying, "This business that we've entered or this business that we participate in should be zero revenue. It should be zero margin. It should be at-cost," is his belief is the metaverse is worth trillions.

And the most important people in the metaverse or the metaverse coming to fruition is the creators of content and the consumers of content. Everything in the middle is an impediment. And by everything in the middle, he means the core infrastructure, the technology, Unreal, the middleware that is live services, live operations, that is transactions, right?

We talk about the iOS store taking 15 to 30% in the comparison to a interchange fee or a banking fee and the distribution fee itself of a Epic Games Store, rather than just the commercial element. The only way you can actually match the value he's cannibalizing from the market with the economic constraint of the TAM today, which is to say he's zeroing out revenue in categories and yet even if he had 100% market share in every layer of the stack, he'd be maxed up to 12 to 13 billion in revenue.

**Matthew Ball continued (00:57:11):** The only explanation is that he single-handedly believes he can crank the TAM up. And we're not talking about cranking the TAM up by 10% a year, even compounded over a decade. But the idea that this can meaningfully pull forward, not in the sense of COVID, 2025 to 2022, but the metaverse future of 2050, can arrive in 2035. And all of that comes from taking as much of the technology that just enables today to work and writing down the margin so that those that are building for the future have the profits to reinvest in the business. And at least in my experience, I haven't seen an infrastructure play as deep, as broad, as potentially immediately lucrative that is taking that degree of an approach. Everyone else is saying, "Let's keep our margins down. Let's grow our reach. Let's build out better infrastructure to grow the market, yes, but secure our position." I've never seen one that is so focused on TAM lift.

**Patrick O'Shaughnessy (00:58:13):** So the act of suppressing their own business in many ways is this sort of ultimate convexity play where the outcomes could be extreme and exponential in the out years, but not as good as they could be today. What are the other, for Epic, key parts of that overall engine? No pun intended. So discuss just briefly for the uninitiated, what Unreal Engine is, why it's so important, not just for games, but for, I guess, rendering of anything. And then I want to explore the aspects of Epic that you explored in your piece that sit around that engine.

Matthew Ball (00:58:46): The core of Epic Games as they would probably self-describe is the Unreal Engine. And the way to think about the Unreal Engine is not that it helps people make games, but that it is today the world's most capable, diverse, realistic simulation software toolkit and of course, the terms become a little bit more complex. But the idea is, if you want to simulate an environment, unexperienced people in event, Unreal is basically the most capable skillset there and that came from video gaming. And that's because video gaming has actually been for decades now, the most diverse, tested and capable in terms of the range of hardware can work on set of simulation technologies. For the past 25 years, Unreal was developed in the 90s.

It was all very focused. But we are now at the point in which that 20-year feedback loop of building out the function. By the way, the function is diverse. It's not just, "Let's do a shooting game. Let's do a platforming game. Let's do a hangout game." It's all of these things. And it has been developing 25 years and it is now at the point in which the quality of that simulation exceeds basically all of the bespoke tools, software simulation capabilities of most of the other fields. The US military now uses Unreal to do it's simulations and that's because there is no business case for building a comparable engine for the physics that the military requires. The new Hong Kong International Airport was built in Unity, the primary competitor to Unreal, so that they could use Unity to simulate the consequences of a fire, of storm, of delay, of runway backlogs in design.

**Matthew Ball continued (01:00:39):** There's this backup benefit of this, which is the more things that run on these game engines, you start to back into the metaverse interoperability. If Hong Kong's airport was built on Unity, and then the local shops start to use Unity for sales, and then you start to build in Unity based devices or other experiences in that airport when people are going through, you can see how the metaverse starts to emerge.

So Unreal has been operating for decades. It is slowly building in capability, in reach and it's expanding its skillset. Then of course, they launch Fortnite. Fortnite's really interesting in that I think a lot of people take this cynical perspective and say, "Fortnite launched to mediocre success. It was originally a zombie defence game, what's called player versus environment so the players would team up together to defend from a zombie invasion. And they quickly pivoted into a Battle Royale format." The Battle Royale was to most arguments, copied from a game called PUBG.

And I think you can reasonably make the argument that that original premise might have been wrong. But the premise of making games for Epic was for R&D. It was built to be extensible, to be nimble, to be flexible. Epic previously built one of the most successful franchises of the 2000s called Gears of War. They sold it to Microsoft because it was just a game. It helped them fund R&D, but they're not in the, "Let's make a game business." Fortnite was designed to be extensible, flexible and so when they started to have new formats emerge that might be a better fit, they rapidly pivoted because that was the design.

To put this in context, Fortnite came out in 2017, it was only in April of this year, that Call of Duty, one of the most successful games in the world that is built on shooting and combat, but it took them two and a half years or three years to launch a Battle Royale. Because, unlike Epic, they're not built on game engine. They're built on engine specific for the game.

So Fortnite launches, and I think many of the core elements of Fortnite are understood. It's a social space. It's proto-metaverse" in the sense that multiple IPs come to intermingle, DC's there, Star War's there, Marvel's there. you can wear an NFL Jersey. You can be John Wick. We've never really seen that. But

what's more important is how Fortnite built a flywheel at Epic. The first is to make Fortnite work, Epic had to build a variety of different technologies to support what is basically the world's largest, persistent, most multiplatform, and by multiplatform, I mean operating on all sorts of different hardwares with interoperability, backend.

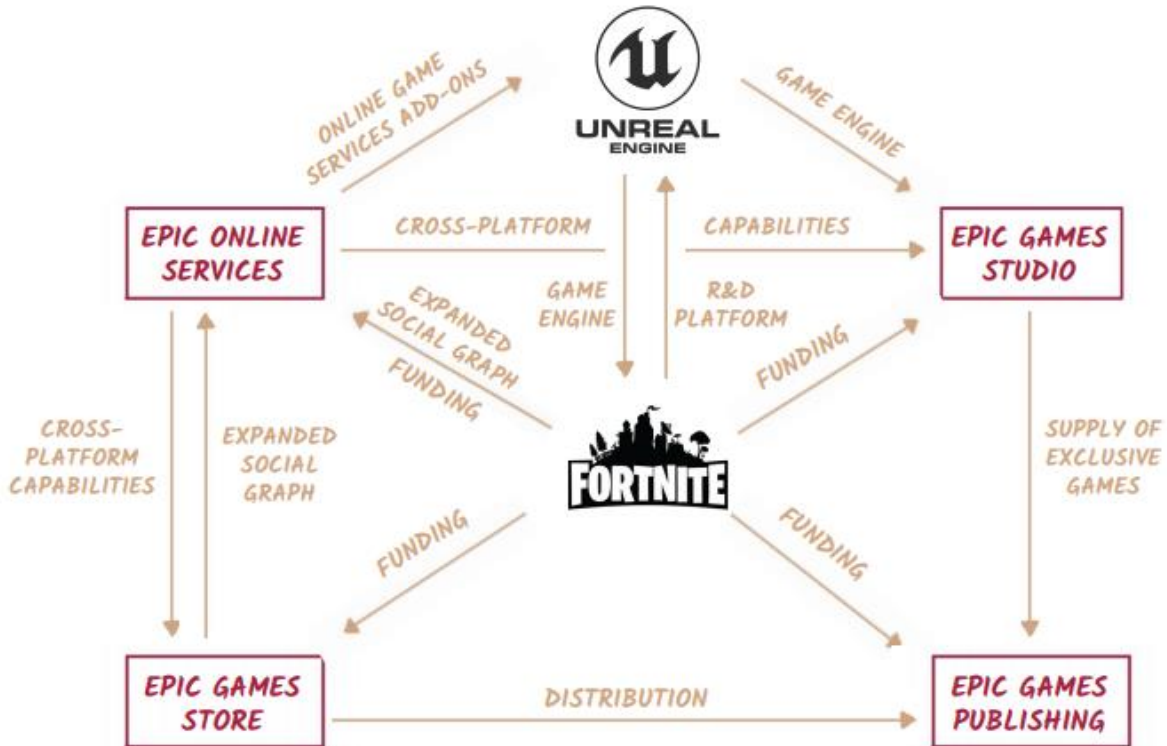
**Matthew Ball continued (01:03:17):** No one actually has something of equivalent scale today. Microsoft and Sony have more online time, but it's in their network. It's on their platform. Facebook has greater reach in devices and time, but not in simulation. And so Epic built all of this and it's powered by a social graph and what's called the Epic ID. And of course, it's spitting off a lot of cash. And then Epic used all of this to launch what's called Epic Online Services. And the way to think about EOS is basically Fortnite in a box.

They go to the rest of the market and they say, "We will give you all of the technology required to run multiplayer experiences, save for spot servers, because that ends up being our AWS bills, because that becomes unsustainable. But if you want to run matchmaking, if you want to deploy your game on every device, if you want to access the social network, if you want to build leaderboards and player histories, if you want data protection, entitlement management, we will give that to you. You don't need to use Unreal. You don't need to partner with Fortnite. You don't need to partner with the other parts of the business. I'll get to it in a moment. You can use it."

This is something that Microsoft, Amazon, Google has spent hundreds of millions of dollars acquiring companies to do. They charge for it. And the market leader, Valve, which operates Steam, offers it for free as well, but they require you to integrate your game into the Steam Store. You can't play your game without operating in Steam. And so, again, this is Epic saying, "We're going to take everything we built. We're going to give it away for free. Use what you want. Leave what you don't. And we're going to ask nothing else of you." At the same time, Epic used the cash from Fortnite to launch the Epic Games Store. They did something fascinating, which is instead of launching a new store for the sale of content, they updated the Fortnite app so that it was the store.

This is the classic turn a product into a feature. Fortnite became a launch game in the store, as opposed to the thing itself. This meant that within one day, Epic Games Store was launched on tens of millions of devices. And here, they take basically 60 to 80% lower commissions than the market leaders in iOS, in PlayStation, in Valve. And again, this is in Tim's perspective of, "We need to have our commission fees as low as possible, ideally, barely above costs so that developers have more money so that they can produce more content, reinvest in the business." And of course, again, now you're saying, "We have the underlying engine, we have a multiverse-like experience in Fortnite that can become a platform in metaverse. We have the underlying live operations infrastructure. Now, we've got the distribution arms and Epic Games Store."

## THE EPIC FLYWHEEL (SIMPLIFIED)



And then finally, they launched a new division. And this has all happened in the last 18 months called Epic Games Publishing. And Epic Game Publishing basically offers the world's best terms to content owners, the best recoupment, the best IP ownership, the best distribution agreements. It doesn't require them to use Unreal. Again, this is non-privileging your own business. It doesn't obligate them to use Epic Online Services. But this all interconnects in a few different elements. One is obviously, it drives R&D to Unreal. It makes it easier to do transmedia, crossmedia integrations with Fortnite. It grows the power potency and reach of the Epic online account system. It helps to drive content to the Epic Games Store. But the core of all of this is not just taking value out of the middle of the gaming industry to push it to developers or to increase the quality of experience for the audience, but it drives that interoperability. This is Tim trying to bring the metaverse together by driving either margins to creation or commonalities between experience, access, entitlement.

**Patrick O'Shaughnessy (01:07:23):** It has to be the most interesting business story that I've heard. The fact that so much of that, I mean, I remember playing Unreal Tournament and thinking the graphics were incredible back when I was a kid and you've got this thing that's just been compounding in its ability to render things for all this time. And my guess is most, maybe not now, but as of two years ago, most investors had never heard of Unreal Engine. What are the other key things that that world, the investing universe portfolio managers, et cetera, should be thinking about when they think about Tencent or Epic as a business? Because I don't know what its latest valuation was, but it's probably in the, maybe it's 35 or \$40 billion or something like that. What else is important to know from a business standpoint? Because it seems to be such a contrarian and unusual way to run a business.

**Matthew Ball (01:08:13):** I'll tell you the best example here, which is the actual applied investing related consequence of the TAM approach to value realization. Earlier this year, Epic announced that one of the first content studios that it would be publishing through Epic Games Publishing, again with those incredibly

lucrative terms, was a company called Remedy Entertainment. I believe Remedy is in Sweden. It's a publicly listed company.

To some extent, the fact that Epic would say, "These guys are leaders. We're going to do three deals," is suggestive of king making. You're going to get extra distribution. You're going to get a new marker of success but it also meant that Epic was able to massively improve the economics of this business. Remedy was probably previously paying 80% of revenue to the publisher. Now it's paying 50% to Epic and only up until the point of recoupment, I believe. Remedy used to previously produce and lose the rights to its IP. Under Epic Games Publishing, they will keep their IP.

“In a weird sense, there's always been that conversation around content versus distribution, being king and of course, both wax and wane, flex and weaken. **But what Epic is basically saying is: content should be king.**”

The consequence of this, and it took investors a few weeks to figure this out, the company's value has doubled. They have not released any news, not what we're making, or what we're planning to make, not the ideas we have. Purely what has happened is you were looking at a content company that has basically changed talent manager, if you take a music label analogy, and the consequence of shifting was their EBITDA is probably going to go up several fold. It's still discounted because you don't know what the creative will be. They don't own their own games per the old publishing agreement. But now, if they have a comparable success, they will achieve multiples more of the profits. And so when you're talking about investors, understanding how over the long-term this is going to crank up the TAM, pull forward the future, but also flow more value to the participants is really important.

In a weird sense, there's always been that conversation around content versus distribution, being king and of course, both wax and wane, flex and weaken. But what Epic is basically saying is: content should be king. And so the implications for investors who have typically said, "We don't invest in hit-driven businesses," who have historically said, "Okay, but now I see how games are starting to become platforms or ecosystems so now we'd like it. It's got a tech multiple." This is actually going to unlock a lot more value and improve their odds.

**Matthew Ball continued (01:10:40):** The last is to think about Tencent. Tencent, to me, is one of the most astonishing companies and a number of your other guests recently have spoken about it and so I don't want to redouble their efforts, but I want to put it in a metaverse perspective. We talk about the earlier impediments to creating the metaverse around interoperability, about driving standards and experiences, getting parties that prefer having closed ecosystems and smaller TAMs to bigger TAMs, where they can't control if they win or lose.

Tencent has this weird outcome by nature of their aggression to date, their stakes in every company, the regulatory environment that guarantees they should and will be successful and precludes competition from entering, means that they have an enormous share of virtual experiences. Activision Blizzard, as an example, is a public company, but they cannot operate in China. Most of the major publishers can't. Nintendo can't publish its own games. And so Tencent not only has the scale, the technology, the reach, the consumer attention, the social platforms, the commercial, but actually they publish almost everything that happens virtually. Then they have other assets like Hooyah which is the Twitch of China.

And so if you actually said, "Who is closest to the metaverse today?" The simple answer is not Fortnite or Minecraft. It's actually Tencent. They probably don't have all the tethers in place today, but while not discounting this to the level of a flip of a switch, they actually can do it in a way that is never before possible.

And as long as the party is okay with increasing amounts of time online, where your relationships are and obviously, there are discounts there, that's enormous.

And it's something that the West, if you want just a secular bearish perspective on, no matter how aggressive we were or how deep the technological advantage is or the entrepreneurialism can't actually match.

**Patrick O'Shaughnessy (01:12:44):** Where else do you think there are maybe nearer term opportunities in the world of gaming that should make entrepreneurs and investors stand up and take notice? You said earlier, the monetization per user, we talked about with Gavin before, is very low in many of these games. I think Fortnite, it's extremely low. You're basically paying for cosmetics in Fortnite. What else is happening right now, whether that includes Epic or not, that most has your attention in the world of gaming?

**Matthew Ball (01:13:12):** The media industry is so interesting because it actually is technology. That's the core idea of media, that's technology. We can go as far back to the printing press to understand how media categories are by definition enabled, unlocked, created by technology. A friend of mine, Yoichi Wada, who's the former CEO of Square Enix, has massively influenced my thinking here and I want to give him credit where he talks about the fact that all media industries are a product of content, business model, and technology. The technology usually comes first, that informs the business model, and that drives content. To use as quick diversion, let's think about television. Broadcast television evolves.

You cannot customer discriminate in broadcast. You cannot easily charge for broadcast. You cannot keep Patrick's house from accessing broadcast and Patrick's neighbor from accessing broadcast. The consequence of that is the business model. You go based on advertising. The impact of scarce spectrum is you can't have multiple channels.

“All media industries are a product of content, business model, and technology. **The technology usually comes first**, that informs the business model, and that drives content.”

The consequence of not price discriminating and not having competition is it becomes an eyeballs business. Eyeballs business means you want to maximize the amount of people watching, and that leads to content that is lowest common denominator, or basically, what we consider broadcast TV. And so that loop applies over and over.

Cable emerges. Cable means direct marginal costs. It means you need a counter party. It means you can customer discriminate. Pricing comes in. That means content can diversify. That means content can customer discriminate on the quality level. And so we see the pay TV ecosystem change. Of course, Netflix disrupts that.

**Matthew Ball continued (01:14:55):** Gaming is unique in that more so than any other category, the reliance on technology is extraordinary. This gets back to the earlier example of film a decade ago was not that different from film today. Games, of course, are.

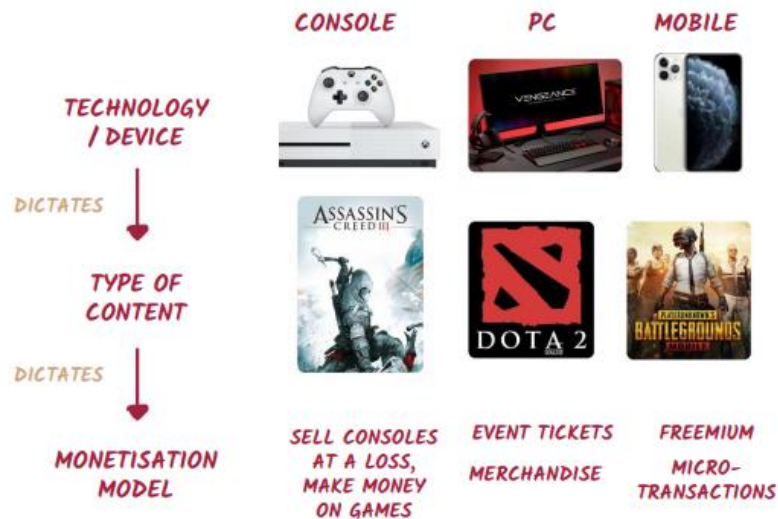
As a sidebar, there's a reason why the CIA designated multiple purchasers of a PlayStation 2 in the early 2000s as potential terrorism risks, because the quality of the technology in the PlayStation was actually higher grade than what most people could afford. And they were worried about daisy-chaining PlayStations to commit counterterrorism efforts.

Anyway, the consequence of this being, gaming relies on technology to change content and business model more than any other media category. And so if we take a look at the industry over the past 50 years, every



time a technology platform changes, something unique in media happens, which is we do not have cannibalism in growth, we do not have classic disruption.

*NEW TECH / DEVICE GIVES RISE TO NEW TYPES OF CONTENT,  
NEW CONTENT TYPES GIVES RISE TO NEW MONETISATION MODELS.*



Music, to go back to Spotify, because that's replaced vinyl, CDs replaced cassettes, download to own replaced CDs, and now streaming is replacing download to own. That's not what's happening in gaming. The arcade industry of the 70s is as big today as it was, even though console has emerged on top of that. PC and online came after. Mobile came after that and live and online services came after that and it has operated like geological strata.

It has added on top. We have not replaced prior segments. We have unlocked new segments. That has three really interesting implications to investors. The first is you can understand that when we see new formats emerge, that can be in metaverse experiences, that can be AR, VR, MR, XR. Niantic being a brilliant example. As that proliferates and grows, we will see net additive growth that does not require cannibalization or substitution from other segments.

But there are two other elements that are critical. When we take a look at that history of gaming, the companies that were successful in arcade on a content and hardware basis, were not the ones who led in console. We had Atari, Space Invaders, Pac-Man. The console leaders were Sony, Microsoft, Nintendo. They were titles like Metal Gear Solid and Legend of Zelda, Super Mario. Those are not the leaders in online PC, that's League of Legends, that's Counter-Strike. Those leaders, the Activision Blizzards, the Counter-Strikes, did not lead or grow or meaningfully participate directly in mobile.

**Matthew Ball continued (01:17:36):** Those are completely new companies, Supercell, Rovio for a while, King Digital, which was acquired by Activision Blizzard. But it's notable King isn't launching Activision Blizzard's PC titles for mobile. And of course, when we take a look at live services, no companies have really transitioned into live online persistent worlds as successfully as the new guys have like Fortnite and Minecraft and so forth. As we look at these new categories, to return to it, Niantic and so forth, there was an expectation that we will have massive growth in market value and brand new platforms emerge and brand new content studios and that, I think, is unique.

And the last thing that I think is so fascinating about that is the way in which you can understand how this explains something unique about the arrangement of the industry today. When you take a look at most consumer media categories, you see enormous concentration of the major players. There are three primary music labels. There are three wireless carriers. There are five major movie studios.

And yet, when we take a look at the gaming sector, you have three console platforms: Sony, Microsoft, Nintendo. Two PC only game store platform, Steam owned by Valve and Epic. You have two general purpose mobile platforms, iOS and Android, that aren't about games, but are nevertheless, the leading vendors of games. There's 10 Western AAA publishers worth 3 to 10 billion. There's two engines, Unity, Unreal that have less than a third of the market share. You have social gaming services like Twitch and Snapchat. This reflects how unique and different the gaming category is, not just in the sense that you don't need to replace existing leaders to grow, but that when you see new platforms emerge, that value allows companies no matter how late they are to the sector, build multibillion dollar businesses.

This is why Tencent for all of its leadership, continues to buy new studios. This is why every one of the major tech companies has started scooping up small studios and it is why the venture capital community remains bullish on gaming as the biggest players get bigger, but still believe that pre-seed checks in \$20 million pre-money valuation companies can be viable.

**Patrick O'Shaughnessy (01:20:00): How does cloud gaming figure into all of this? And does it represent another one of these sort of platform shifts that might create a whole new category of game winners?**

**Matthew Ball (01:20:11):** Cloud gaming is a really interesting example and certainly, based on the moves of Google and to some extent, Amazon, based on rumors, there's an expectation that this cloud gaming shift is imminent. It will be disruptive. It will give an opportunity for the tech giants to slip into place and become new leaders in distribution. Now Google launched its Stadia Solution last year. It has seen very little uptake and two very notable things that happened beyond the consumer side. One is Strauss Zelnick, who's the CEO of Take-Two, which owns Rockstar, which made Grand Theft Auto. And by the way, the most recent Grand Theft Auto is believed to be the most successful single media property ever with \$7 billion in top line revenue since 2013. And I'm not talking about the franchise, I'm talking about that game.

“And by the way, the most recent Grand Theft Auto is believed to be the most successful single media property ever with \$7 billion in top line revenue since 2013. **And I'm not talking about the franchise, I'm talking about that game.**”

Strauss has come out and said, "Google over promised, under delivered and the proposition of cloud gaming is years away." And on top of that, Phil Spencer, the head of Xbox has said that "cloud gaming adoption is years and years and years away", verbatim quote. And he talked about the fact that, streaming video came out in '95. YouTube came out in 2005, Netflix launched in 2007 and it took years after that for Netflix to achieve saturation and then drive the market.

And so, cloud gaming is likely a ways away. I think there were two core reasons to be skeptical of the short term future and optimistic about the long-term vision. The first is to understand the distinctiveness of cloud gaming as a platform. When we've seen the last several shifts, Arcade to Console, Console to PC, PC to Mobile and Mobile to Live. We've seen three important changes.

One is, the per title cost of hardware runtime, goes down to zero. Which is to say, you used to have a dedicated Arcade that played one game. The cost of running that game was very high per unit of usage. Then you have Consoles come out. Consoles unlike Arcades, are multi-device units. And then over time,

actually Consoles start to become multipurpose units, such as, people use it to watch Netflix and X-Box they use it to listen to Spotify. PC takes that even farther and says, "Now you're going to game on a device that is truly not about gaming, but you can game." And then Mobile brings that cost relative to playtime down massively.

**Matthew Ball continued (01:22:41):** We are at a point in which you playing an extra minute of a game on your mobile device, is already at about zero cost. And that's hitting on the device and that's hitting on the content.

Then of course, we've seen an evolution of business models. It used to be that you would pay per use, that was an Arcade game. You want to play Pac-Man, enter a quarter. Then it was play per title, that's \$60. Then you move to pay for a subscription, that's World of Warcraft, \$10 a month. Now we're at free to play. So we're now at a point in which the per usage cost of runtime of hardware is at zero. The per unit cost of playtime is at zero and we're already at a in which there are 5 billion gamers, broadly defined by mobile customers.

Mobile customers, by the way, who can play Fortnite or Minecraft, the most popular games in the world, can be played on virtually any device. What's unique about cloud gaming is, how it's different from those three trends. How it's not like PC, Console or Mobile. The cost of hardware runtime actually goes up enormously, because now you need to rent spot servers that are far away, that are expensive. They're costly to heat, that need to pay for incredibly expensive bandwidth. I think we forget the idea that, almost none of the internet, truly nine and six nines after, percent, do not run on real time bandwidth transmission. Basically the only thing that needs to be real time is trading data. And that's why people lay cables under the earth.

**Matthew Ball continued (01:24:11):** Not only are the servers expensive, but the delivery costs of cloud gaming are high. And then of course, unlike all the other innovations, once you've already got free to play, once you can play, 400 hours of fortnight every month for free, cloud gaming doesn't make Fortnite cheaper. And because we already have a world in which anyone who wants to play Fortnite can play, just having cloud-based delivery to Fortnite-like games, like Call of Duty, doesn't actually expand the TAM. There's no billion people who have said, "Well, for some reason, I didn't play Fortnite, but I will now that it's \$15 a month just to access a remote piece of hardware."

I'm not a general believer in the massive value of that. And some of the major gaming studios will tell you the problem with cloud gaming is you are now fighting against the speed of light. If you actually want to play a first-person shooter with fast twitch, the actual need to push the entire video, not just through real time bandwidth, but two servers located 200 miles away, actually does not work. And it's actually not a question of technology or evolution or broadband availability, it's literal physics. There's only so fast, you and I, if we're in Europe and Ohio, or even if we're in New York city and Chicago, there are physical limits to how long it actually takes to get data.

The final thing that I will say is the optimistic element is, when you reinvent content categories that are not about, let's make a Call of Duty, that's remote, let's make a Call of Duty that you don't need to install. Let's make a Call of Duty with better graphics because you're using a supercomputer. But you say, "What are the types of experiences that we can build there?" That's when you start to see the really interesting experiences. No one knows what those look like. Now there are hypothesis and there's a lot of capital moving towards that. Gavin Baker and I share a portfolio company, that is working on a number of those titles we call MILES. For "massive interactive live events," that are based on that premise.

But indeed there are many people who think that actually, the Metaverse of Neil Stevenson and the far out future, will never be fully realizable because of physics. But if we start to offload some of that experience into the cloud for the simulation, not for games, but for simulation, general purposes of us going to a concert where we don't need to shoot one another, that's actually the cloud gaming perspective. It's, lower intensity,

more realistic simulations that aren't about game play. It's not about winning, it's not about jumping out of a helicopter, but it's about collective experience. That's where the opportunity is.

**Patrick O'Shaughnessy (01:26:55):** It raises a really interesting question on interactivity, this idea of MILES. I don't think I've ever encountered that term before. That sounds really interesting. And it makes me wonder whether the other media categories that we started our conversation with, are going to have to get more game-like. By which I mean, more interactive with feedback loops that don't really seem to exist in traditional media. What do you think about that? About increasing interactivity or participation in old school media types?

**Matthew Ball (01:27:23):** I'm in complete agreement there. And I think there were two key points. The first is to understand, Hollywood is still a creative product. There is a vision of what a story can be and the effect it can have on the audience. And to some extent, the dispute between Martin Scorsese and Bob Iger via the Marvel Cinematic Universe was based on, the degree of integrity of how important the creative vision is, versus the audience want.

The difference in gaming is gaming is actually not like the media industry. It has become more of outcome driven. It's not based on creative it's about, what you can track and see. And by that, I mean, optimizing engagement, optimizing monetization, optimizing certain gameplay behaviors, what you want people to be doing, as opposed to just how much you do it. And that's a lot more symbolic to a representative consistent with what YouTube or Facebook does, rather than what Disney or Warner Media might do.

“Because HQ Trivia basically proved three things, which is, if you were going to create the \$64,000 question today, it would not be pre-recorded, it would be live. **It would not be passive, it would be interactive. It would not focus on the contestant, it would focus on the audience.**”

But the last element is, what happens when you transform these existing categories? I think one of the big themes that you and I kicked off on was, this idea of, what would you have built 60 years ago, if you had today's technology? And it's easy to forget how much we've inherited from canned laughter to 22 minutes for comedy, that comes from that. While the company was not successful, could not pivot, could not figure out a sustainable model, I think HQ Trivia remains a really profound example. Because HQ Trivia basically proved three things, which is, if you were going to create the \$64,000 question today, it would not be pre-recorded, it would be live. It would not be passive, it would be interactive. It would not focus on the contestant, it would focus on the audience.

And we saw how profoundly important that was. And at the same time, HQ Trivia was actually barely innovative. It was mentally very progressive. But all it really did was say, "Let's use a touch screen and let's use a wireless connection or a broadband connection." And I think, everyone in Hollywood is now trying to think of, what's the interactive element that allows us to tap into, more enthusiasm that drives a sense of urgency? We've spent the last 15 years basically dumping on the idea of linear broadcast. And I think what that usually comes down to is the idea of, there is no reason for us to watch Grey's Anatomy at 9:00 PM.

**Matthew Ball continued (01:29:48):** Netflix's argument is, not only should you not watch it at 9:00 PM, you shouldn't have to wait 167 hours to watch the next episode. That's a valid observation. And yet it's telling that no one has been able to figure out how to innovate reality TV shows, for an on-demand era. Because actually, what you give up by bingeing The Bachelor, bingeing American Idol, is most of the value. It's the suspense, it's the social element. Live drives value there. Particularly for reality programming, there's a focus on how you can use interactivity to fundamentally change the content, but also to bring back that live communal sense that all consumers love.

Like there's a reason why people laugh more when they're watching a comedy at a movie theater, than if they're watching it at home. And there's a reason why they laugh more when there are people beside them at home, than when they're watching it alone. And so, interactivity has seemed to be the key certainly to those categories. But at a broader level, there was still this question of how you can use the feedback loops that gaming currently benefits from, to drive all content design.

## INVESTING IN GAMING

**Patrick O'Shaughnessy (01:30:52):** Do you think that that is the most important aspect of evaluating, say, a new media business? Again, I know you do investing, and maybe as an investor, the degree to which they're thinking about how interactivity and feedback loops will be part of their experience.

**Matthew Ball (01:31:06):** Totally. I always considered the fact that, we take for granted how important technology has been to any new brands coming out in media. Classic media for decades now. And this gets back to the importance of technology in driving the medium. When we think of the biggest brands that were created, Star Wars was phenomenally innovative in practical effects. Then you have Jurassic Park come out in CGI effects. HBO takes advantage of a brand-new technology in I think, 1972 or 1979.

That innovation continues all the way through the Marvel Cinematic Universe. And the Marvel Cinematic Universe's big innovation was, instead of having a sequel every three years, sequel being a big business model innovation. Let's have one sequel every six months or one sequel every year. And so, with all of these big media properties, we see a lot of stagnation. There were many companies that came after HBO. The most recent one launched in 2006, Epics. As I mentioned earlier, there are many people who came after the Marvel Cinematic Universe, none of whom worked.

My general thesis is, if you are trying to squeeze opportunity here, you can certainly invest around the hope that the content is truly so good, that it stands out. But I would argue that the massive learning of the past 50 years is the content matters, and we can circumnavigate the idea of whether or not it's distribution or content. But massive innovation on business model or on the technology, is what drives that disruptive opportunity.

Minecraft, Grand Theft Auto, Fortnite are great examples of the, newly executed content, with either a new business model or technology that fundamentally disrupts that ethos. And even when it comes to filmmaking, which has existed for 110 years, and has not changed that much, it was actually purely a business model innovation that drove to content.

**Patrick O'Shaughnessy (01:33:06):** Do you think that today is the easiest time ever to create a new media business, given the tools available? And also, what would matter to you when potentially investing in a company trying to do just that?

**Matthew Ball (01:33:20):** I would certainly say it is easiest in the sense of the startup capital that is required, the friction of actually releasing your content online and even your share of the proceeds from initial distribution. The problem is of course, the app store problem, which is, there are more apps than ever before. It doesn't mean that anyone knows you exist and the cost of installation or awareness, that has saturated and escalated so much that, you can make something superb and very few people know about it.

What that means to me is two things. We see the first in the market. Gaming has become a very hot sector at the startup level. I think in general, there is a lot of timidity and reluctance to provide considerable capital at the pre-seed and seed stage, even to some extent that the series A stage. But there's an incredible appetite to overpay for metrics at the series A and series B level.

“I would argue that the massive learning of the past 50 years is the content matters, and we can circumnavigate the idea of whether or not it's distribution or content. **But massive innovation on business model or on the technology, is what drives that disruptive opportunity.**”

The market has basically accepted that the upside is enormous, that the short term is very frictionless to creation. But for those same dynamic reasons, it's very hard to bet on a winner pre-release, and even early in their career when they have consumer data. And so, series A has become phenomenally expensive. Me personally, I look for big theses around unlocking content formats for user behaviors, using new technologies or theses for interaction that are new.

I do believe that there are an enormous number of opportunities when you take a look at the incredible talent that's coming out of Activision Blizzard and Riot. The capital available, the project financing, the distribution agreements to get back to Epic games, are such that, if you want to create your own studio, it's never been a better time to get the funding to do so. And you can deliver early partnerships to drive distribution. At least for me, I still find that very challenging. And I think you get into the classic problem where the product actually could fit the market, but never finds it. And so, I prefer to take the bigger swing on the different theses.

**Patrick O'Shaughnessy (01:35:20): What major media ideas have we not touched on at all, that you think are most important over the next 10 years?**

**Matthew Ball (01:35:29):** The most important to me has really become this idea of trends, media storytelling. I think we are very early into it. Gavin had spoken about the potency of The Witcher and I address some of the performance indicators there. But, The Witcher is not a transmedia experience, it is cross or multi-category. We are very early into the Marvel Cinematic Universe going to television. DC just announced that they're going to start doing that. Of course, Star Wars has been doing it with The Mandalorian and we're starting to see the major video games move into their own adaptations that are not connected to their games.

If you take a look at this history that says, our IP gets bigger, it gets more expansive, it involves the audience. It becomes more frequent, it becomes more persistent. If you take a look at the idea of Pokemon Go, which basically says, "Let's actually have your fantasy world everywhere, it's around you. There's a Pokemon in your living room." I think that we are eventually going to hit into a world in which, transmedia storytelling says that there is some cohesive narrative that goes everywhere with you. And in some instance, you can think of that as the Metaverse.

But the idea that you might come home and log onto a Star Wars game or a Marvel game, and it's a persistent existing universe where you might see your friends, go meet up with Tony Stark and go on a mission that has some interaction, with the franchise property. That meets the unending consumer want, for story and it's something that's newly technologically possible. When we take a look at some of the investments Epic and others are making, we're getting into live performance, virtual production, it's actually quite possible that you can imagine paying Robert Downey Jr for his likeness, for his audio. And then you have a performer that is doing motion cap that is remapped to Tony Stark. Such that you and I could go on log into this game tonight, actually interact, one-to-one with, a Robert Downey Jr, a Tony stark, go on a live adventure to save the world. And that would all be part of this expansive universe.

And again, we're at the very nascent elements of that. But the degree to which people are transitioning their want and their love to every category, the degree to which we're already seeing the interplay from The Mandalorian to the films, is instructive. And the way to which we're already seeing live experiences in video game that have promotional integrations into films, tells us that's coming.

And as I mentioned earlier, the Marvel Cinematic Universe became so unprecedented because of a business model innovation. Jurassic Park did so through technology. And I think, if you're trying to say, "What has the potential to displace these franchises to grow? How does DC or the Power Rangers surpass the decade and a half of affinity building of Marvel? To improve on the monetization of having, eight of the 10 biggest films of the year, which Disney has today. It's going to be doing something fundamentally different, more ambitious, in much the same way that the Marvel Cinematic Universe felt and looked insane."

**Patrick O'Shaughnessy (01:38:45):** I love this idea of trans-media intellectual property and business planning. We haven't talked about what makes for good IP in the first place. In The Witcher example, I don't know how far back it dates, but in many cases, I love the early stories of Disney, that they were just borrowing already existing stories and putting a new spin on it. It seems like there's probably, already in existence, the IP required, the worlds that have been built by writers or people imagining them.

**You could just go back and find them and buy one and start building on top of it. But that would require that you know what makes for potentially good IP universe. Do you have any thoughts there on what the key ingredients are?**

**Matthew Ball (01:39:22):** I think one of the things that's really interesting there is, we certainly can understand the elements of a good story. Joseph Campbell wrote that in The Monomyth and The Hero of a Thousand Faces. And certainly George Lucas has said that he wrote to that framework. The Wachowskis, making the Matrix, wrote to that framework. And certainly it's one that, J.R.R Tolkien adhered to.

We know the elements of good storytelling, good character. It's very, very hard. And yet, what I'd say that's fascinating is, to put this in perspective, last year there was a lot of conversation around, Disney being potentially a monopoly. They had eight of the 10 biggest films of the year. There have been about 36 or 38 films in the past 15 years to cross the billion dollar mark. Disney has 65% of them. Most of which have been in the past three years. And so, you can tell if there's clear IP ownership, that the execution is profound.

Most of the classic Eastern European, Eurasian stories that Disney is telling today, have been told by competing studios. Others have tried to launch Peter Pan multiple times. There have been to Robin Hoods over the past decade, both were bombs. A Jungle Book version came out from Warner Brothers, with Andy Serkis, with Christian Bale, with Cate Blanchett. It bombed and was sold to Netflix before it even launched in theaters. Jungle Book did \$1.5 billion from Disney. Warner Brothers did a Hercules movie in 2014 that didn't make money. There was a Tarzan movie. And yet Disney is making a Hercules movie. Now, Disney is making a Peter Pan movie now. Those have many failed adaptations from competing studios.

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**Matthew Ball continued (01:41:04):** I think you and I would be hard pressed to say, that those aren't going to be hits for Disney. And that tells you, there's not actually endemic IP, they don't own Robin Hood. They

don't even necessarily own in the case of Hercules, a definitive version of Hercules, they had one film in the '90's. And that tells you that there's a real capability there. They have an enormous storytelling skillset that nobody else can do. Even though you can understand, that Hercules, the Peter Pan have the atomic elements of a good story, that's why others have tried for it.

And I think the second point is, Disney's not just best at telling stories, they are best at extracting value from those stories. Disney has things that are not in vogue today, which has strong distribution agreements with theaters and large consumer products, distribution agreements, and certainly it's theme parks.

That means that not only is Disney more effective at building hit content, but they are more effective at monetizing that, more so than any other player. So, I think that's where you start to understand this question of, monopoly and feedback loops and why it has been so hard for anyone to come close to Disney.

**Patrick O'Shaughnessy (01:42:15): In closing, I've got two questions for you. The first is, to ask, what you do not understand well today that you wish you did.**

**Matthew Ball (01:42:24):** I would say that there are two things that I really need to get smarter on, and those are, payment platforms and blockchain. And to some extent, those are intermingled, but I think both of those are incredibly important as we take a look at more decentralized creation and interoperability of virtual worlds.

That's not exclusive to the definition of the Metaverse and that's not exclusive to why I'm interested in it. But certainly, when we think of the capabilities required for scaling up mass interaction globally, mass computational sophistication, the complexity of persistence, running an instance that loops, that ends, that resets, is much easier than saying, "Let's do something, you and I Patrick, on a private simulation that exists contiguously with the rest of the world. And when we allow it to connect with the rest of the world, the rest of the world, accesses that with full continuity." That is a hard technical problem, for which I think, blockchain and distributed computation actually might be the best application.

And then similarly, when you take a look at the idea of moving commerce and creation more online, the idea that you might build actual art of value, you might be conscripted into activities. You might collaborate. Actually, understanding the payment infrastructure and capabilities, starts to become very important there. There's this funny Josh Brown quote, I saw the other day about Shopify, which is a company I love, and of course I'm Canadian and so, I'm rooting for them. Where he joked about the fact that the valuation now implies that Shopify is the global leader in payments on the Moon and Mars.

And I think that that's funny, but one of the ways to think about that might actually be the Tim Sweeney ethos. Which is to say, "A massive TAM can be unlocked, and it's very hard to price." But you can virtually guarantee AmEX and MasterCard are probably not going to be running the payment systems of the Metaverse. And if you believe as Tim does, that you're talking about trillions of dollars of new creation. Then you have to ask this question of, "Who's going to run it? Who can manage the data? Who can manage the entitlements?" And so I think those two companies and the way that they work is just, remains a gap for me. And it's only going to become more important.

**Patrick O'Shaughnessy (01:44:37):** Matthew, I discovered your writing few years back and ever since, you've been one of my clear favorite thinkers, writers. You cover an area of the world that I think is interesting to everyone. You laid out the stats earlier. The hours, the days that people spend on these various areas, it's ubiquitous for us all. And this conversation has been a long time in the making but, I'm so glad that we waited because I so enjoyed it.

**I think you'll know my closing question, which I ask everybody, which is for the kindest thing that anyone's ever done for you.**



**Matthew Ball (01:45:03):** I always love this question because I think, when you listen to your podcast, Patrick, you'd hear such a commonality of the number of people who gave you a break. I've certainly benefited from many, many people. Jason Hirschhorn, Jesse Jacobs. I'm sure I'm going to miss many people, but I think, the foundational one ultimately comes back to parents. I think my parents both grew up low income. They worked hard to become middle income and they gave my sister and I an upper middle class, if an upper-class upbringing of opportunity, often at their own disadvantage. Giving away luxury trips and so forth, choosing where we would go to school, what we would get, the books, the time with them.

And I think extricating that from the success that has come, irrespective of hard work, opportunities other have given down the line, is just impossible. And I think that that's a gift that endures.

**Patrick O'Shaughnessy (01:45:54):** Well, since I'm about to go, leave this conversation and go play with my kids, I love that as an answer. I loved our conversation today. Thank you so much for our time.

**Matthew Ball (01:46:01):** It's my pleasure, Patrick.

**Patrick O'Shaughnessy (01:46:04):** If you enjoyed this episode, you can sign up for a new email newsletter. Sent out each week called, Inside the Episode. Each week I condense that week's episode, to my favorite big ideas, quotations and more. I've been recommending books to members of this email list for years, and we'll keep doing so in this weekly email. You can sign up at [investorfieldguide.com/book club](http://investorfieldguide.com/book club).