## [00:00:00.090]

Hello, friends, welcome to the show, this episode, the podcast is brought to you by Woop and their awesome fitness tracker that I wear 24/7.

#### [00:00:08.700]

It measures my heart rate variability, resting heart rate, respiratory rate and my sleep.

## [00:00:15.000]

When I wake up in the morning, I check it and it lets me know how well I've recovered, gives me a recovery score based on how well I slept. It also makes me really accountable.

## [00:00:24.070]

Like good shows me how much I've actually slept and you get target exertion goals to aim for based on your recovery. So you know how hard your workouts should be because a lot of times you just guessing, right?

## [00:00:36.180]

Well, I feel pretty good today, what with wub.

#### [00:00:38.370]

You could look at your woop application and it'll tell you, hey, man, you're good to go or it'll tell you, hey, you know, you really worked out hard yesterday and your body hasn't really totally recovered yet. Maybe take it easy today.

#### [00:00:52.220]

So based on how intense your day is, it'll also let you know how much sleep your body really needs to recover. It's amazing. It's the best fitness tracker that I've ever used and it has the best membership I've ever seen for just 30 bucks a month. You get personalized insights 24/7 that quantify all the data and help you better understand your body on a deeper level. Woop goes beyond just tracking calories and your heart rate. It monitors your sleep strain and recovery with personalized feedback in real time, all within their app.

#### [00:01:24.950]

And it's a big reason why I recommend it to anybody trying to get in shape or just anybody who wants to build healthier habits in general. And for listeners of this podcast, WOOP is going to give you 15 percent of all memberships, give you a shot. And if it's not for you, they offer a 30 day return policy. No questions asked head on over to woop. That's w h o p dot com and enter Rogan RSG and at checkout and save 15 percent off.

#### [00:01:50.390]

Join Woop today and sleep better, recover faster and train smarter.

#### [00:01:56.390]

We're also brought to you by Squarespace and they're fucking amazing way to make a website. You don't need to hire anybody to make a website anymore.

#### [00:02:05.510]

You can make your own website with Squarespace. Squarespace has got it dialed in.

#### [00:02:12.080]

Kids, you get a simple, easy to use drag and drop user interface and gorgeous designer templates that will allow anyone to build a beautiful professional website. Each website comes with a free online store. And you can use it to sell products and services of all kinds, plus they have the ability to customize the look, the feel, the settings, the products and more with just a few clicks.

#### [00:02:36.280]

You can move it around. You can change things. Everything is optimized for mobile right out of the

box. There's built in search engine optimization, free and secure, hosting nothing to patch or upgrade ever and 24/7 award winning customer support. I'm telling you, if you need a Web site, you no longer need to have someone make it for you. My Web site, Joe Rogan Dotcom. That's a Squarespace created Web site. Duncan Trussell dot com, Squarespace Web site, Doug Stanhope Dotcom, Squarespace website, so many restaurants and so many artists and bands and comedians use it.

## [00:03:12.430]

It's so easy to use and they're so confident that you're going to love it. They're going to let you try it for free. Go to Squarespace Dotcom slash Joe for a free trial. Then when you are ready to launch, just use the offer Cojo to save 10 percent off your first purchase of a Web site or domain.

#### [00:03:31.210]

We're also brought to you once again by the motherfucking cash app.

#### [00:03:36.400]

You probably already know that the cash app is the easiest way to send money between your friends and family without having to hold on to that dirty paper cash, that antiquated stuff that. Why is that even still around? Right. Well, the cash app is also the very best way to buy Bitcoin with cash app. You can automatically purchase Bitcoin daily, weekly or even biweekly, which is known in the industry as stacking Satz. Satz is short for Satoshi, who's the legendary person who created Bitcoin.

#### [00:04:09.550]

No one knows who it is. It's a mystery, but bitcoin is no mystery. Bitcoin is a transformational digital currency that acts as a decentralized peer to peer payment network powered by its users with no central authority.

## [00:04:24.580]

It's what currency should be. It's the future and you could become a part of it right now through the cash out. Buy yourself some Bitcoin. And of course, when you download the cash app and enter the referral code, Joe Rogan, all one word, you will receive ten dollars. And that cash app will also send ten dollars to our good friend Justin Bren's fight for the forgotten charity building wells for the Pygmies in the Congo. It is a true win win.

#### [00:04:53.080]

So don't forget, use the promo code. Joe Rogan, all one word when you download the cash app from the App Store or the Google Play store to day. We're also brought to you by Buffalo Trace Whiskey by young Jamie. You and I had some Buffalo Trace whiskey just last night. Yeah, I drink it when I'm out on the town.

#### [00:05:15.820]

Kids. Whoa, it's damn good whiskey. It's fantastic stuff. It was named the Twenty Twenty Distillery of the Year, the San Francisco World Spirits Competition and some of the best whiskey tasters in America judging hundreds of whiskeys and Buffalo Trace one the most. Now, I can't speak for them, but I can speak for myself. I fucking love the stuff. I love a lot of things about it. First of all, it's it really is damn good whiskey, but it's also I love the history of it.

#### [00:05:43.270]

They have been distilling whiskey since 1773. Buffalo Trace as a company is older than America itself. Well, obviously not the ground, but the thing you know that we created that. Well, not we, but you know what I'm saying. Buffalo Trace has been around ever since the early American pioneers followed the buffalo herds, the Kentucky River, they even operated during Prohibition with a permit to make whiskey for medicinal purposes, wink, wink.

#### [00:06:12.260]

It's awesome stuff. And the master distiller in charge is Harlan Wheatley. He also makes craft vodka named after him called Wheatly Vodka. And since 1995, Harlan has been distilling and making magic at Buffalo Trace. If the whiskey in the barrel is not ready to go into the bottle, it doesn't. And they

know that because they taste it all. It's fantastic stuff. The governor of Kentucky has designated bourbon as essential during this pandemic, and they have been making it through the entire pandemic, making more whiskey every day and now hand sanitizer as well.

[00:06:49.400]

It's a great company.

[00:06:52.000]

The Buffalo Trace motto is Stand strong. They will not compromise, especially on the taste of their whiskey, and I respect that. No wonder why they win all the awards.

[00:07:01.060]

I might sip some Buffalo Trace tonight again. Buffalo Trace, distilled aged and bottled by Buffalo Trace Distillery 90 proof, Franklin County, Kentucky, Buffalo Trace, American family owned and independent. All right, friends, my guest today is the author of a very sobering book on technological addiction. I read it and I posted about it on my Instagram a while back, and I finally got him on the podcast today.

[00:07:32.050]

Please welcome the great Adam Alter ego driven by the Joe Rogan Experience train my day job and podcast My Life All Day. Hello, Adam. How are you? What's going on? Yeah, not too bad, thanks. Not much happening is the pandemic.

[00:07:51.930]

I really enjoyed your book. Man is terrifying and accurate and irresistible.

[00:08:00.510]

Thank you. I appreciate that.

[00:08:03.090]

When you write a book like that, I mean, first of all, the irony is not lost on me that we're doing an electronic show about avoiding electronics like it's so much part of our life or our addiction to all these devices and games and applications and all these different things.

[00:08:23.700]

But yet we use them constantly. It's such a weird balancing act, isn't it? Yeah, it is a weird balancing

[00:08:30.450]

I think a lot of people who write about this stuff and think about it really just focus on all the negatives. There are obviously massive positives, but this is a time when we're being forced to physically distance ourselves from other people. And yet we are incredibly lucky to be able to carry on conversations like this, to be able to connect to other people through screens. And so so screens in many ways great. But obviously there were downsides as well. Yeah.

[00:08:54.300]

The good thing is that people can work remotely. And I think there's a lot of people that are recognizing that it's not really necessary to be in a cooped up office all the time. And many people are finding that they're even more productive from home. But then you've got distractions while you're at home that you you know, you could just look at whatever you want on your computer if no one's looking over your shoulder. And therein lies the problem with being connected to the Internet.

[00:09:17.700] Really, right?

[00:09:19.470]

Yeah, I think that's a really big part of it, is that the good stuff, the stuff that brings us value, that

makes it possible to connect to people and their acute values that come from being on the screen is a lot of a lot of great stuff there. But it's so close in proximity to all the stuff that takes us away from what we should be doing. And so you're constantly trying to balance these two issues?

## [00:09:39.090]

Yeah, I know several comics who write on a computer that doesn't have Wi-Fi. They've disabled the Wi-Fi on their computer just so specifically, they can never get on the Internet while they're writing because it is it's such a pull, like it's such a it's so difficult to imagine that people lived without it and that now that we have it, it's so difficult to ignore. It's so difficult to get away. Yeah, it's true.

#### [00:10:09.600]

There's this big push in the last few decades, especially in the last decade, called retro mania, which is this kind of falling in love with things that have passed that are from the past, things that people didn't really like at the time that much. And so now we've got all these capacities and capabilities on screens that make them phenomenal and they can do so many more things than they used to be able to do. But like a writer who's trying to get work done, the only way to really do it sometimes is to to roll back time, 10 or 20 years.

#### [00:10:36.240]

And so there are a lot of people who do that. They'll they'll disable the most kind of advanced features on the screens they're using because it's the only way to get past that that hurdle of trying to do the right thing but have the wrong thing.

#### [00:10:46.470]

Be right there at your fingertips when you're writing a book like yours, which is warning people about technology. What was your motivation for doing this? Is this something that you've struggled with personally? Is this something that you just seen other people struggle with?

## [00:11:03.480]

Like what was the reason? Yeah, it's it's definitely something I've struggled with a lot, and I think a lot of us in academia who end up writing about topics like this focus on the things that are most most prominent for us. I remember being on a flight once between New York and L.A., so a good six hour flight. And a friend had texted me and said, you should check out a game. Was this game that he told me to check out a game called Flappy Bird.

## [00:11:29.980]

And I downloaded this game on the runway. And I remember as we took off, I started playing and I had I had grand designs of doing work, having a good nap, having some food. And I spent six hours playing this game so that by the time we landed, I had done absolutely none of the stuff I was planning to do. And I remember landing and the guy next me actually turned to me and said, Are you OK?

#### [00:11:50.510]

Because I kind of said that just tapping the screen like a maniac. Six hours. I remember thinking, this is not good. If I, you know, I'm a reasonably high functioning individual and six hours just melted away. Now, you blow that up to a lifetime. We're spending like 15 or 20 years behind these screens. And so the question is, are we doing it in a way that's good for us or is it not good for us?

#### [00:12:10.730]

And so that's what inspired me to to research this and to write about it, to try to get a sense of what I think of is the biggest the single biggest change in the way we live as a as a planet in the last 20 years and trying to get a sense of whether that's been mostly good, mostly bad, somewhere in the middle of at least pushing people to think more about this thing that's occupying so much of their time. Because that's what I wanted to do.

#### [00:12:34.640]

I wanted to understand better. You know, it's fine if you're going to spend one flight doing the wrong

thing for six hours if you have other plans. But expand that to a life, a life span, talking about 80 years or so, I think it's going to have a huge effect on the way we live. And so I wanted to understand it more deeply.

## [00:12:50.630]

There was which was the game that you wrote about where the the maker of the game, even though it was hugely successful, decided to lead it. Yes, that's the one that I started playing with, Flappy Bird. Yeah, Flappy Bird, it's he removed it from the market. It was an incredible thing. This guy was making an absolute killing at its peak. He was making I think it was something like tens or even hundreds of thousands of dollars a day in ad revenue, which, you know, for an indie game developer, you create this game.

## [00:13:21.770]

It's kind of a move of passion more than anything. You just enjoy pouring your your artistic talents into the making this game. You don't expect to make tons of money, but the guy was making and killing and you rare in this industry and I think rare in any commercial industry. He had a conscience and he basically said, I feel terrible about this and remove him from the market. And people reached out. It was almost like he'd taken a drug away from drug use is because he removed it from the market.

#### [00:13:46.910]

And a lot of them responded and said, can you just, like, give me a copy on the side?

## [00:13:50.870]

And he was pretty firm about it. He said, no.

#### [00:13:53.510]

Wow. Wow. So what is so uniquely addictive about that one game? I know there's games like Candy Crush that are uniquely addictive and subway servers. My wife's addicted to that game.

#### [00:14:06.650]

Like, what is it about Flappy Bird that's uniquely addictive? I'll tell you the thing for me, that was addictive. It was incredibly simple to play everything about. It was incredibly straightforward. There was a clear objective and you could see the little points tick upwards. So what you have to do for anyone who hasn't played the game, it's so simple. It's just a bird who has to fly through obstacles. It's just mindless. But but one of the things that I think made it so hard for me to stop playing was that if you think about games in the 80s, the 90s, you'd end a game and you get this little game over screen and then you'd have to push the button to keep playing.

#### [00:14:43.840]

And so each time that happened, that was a little prompt that made you want to get on with your life, go do something else. The thing about Flappy Bird is the bird. When he crashes, he just automatically reanimates and he starts flying again. And it almost feels rude to the bird at that point to say, I don't think he's playing. So so I felt I felt like, you know, look, we're two hours into the flight, three hours into the flight, but that bird just never stops flying.

## [00:15:07.450]

And I don't want to be the guy who just says it's it's game over Bird. And that's how, you know, I mean, it's an exaggeration. It's a bit silly, but it's really how it felt in the moment. And I think this is something that a lot of the screen experiences we have have as a feature now that the companies that have produced the products that we're using have systematically gone through their products to remove those little cues that would have said to us, it's time to move on.

#### [00:15:33.460]

So the maker of video games now doesn't have a big game over screen. The game just kind of keeps rolling on. And if you do that, you short circuit one of the things that pushes people away from what they're doing onto the next thing. And we call these stopping queues. And if you think about the bottomless ness of social media feeds, they were not bottomless when they were first designed and

released. So when Facebook first came out, you had to click a little button at the bottom of the page that said load more.

## [00:15:59.530]

And that's not true anymore. Things just spool and spool and spool. And so there's no bottom to them. And as a result of that, we've short circuited that little notch that used to say, OK, move on. And that was true of Flappy Bird. And that's what made it so hard for me to resist it at the time.

#### [00:16:16.180]

The stopping queues are starting cuz that's one of the features that people find uniquely addictive about Tick-Tock because tick tock videos play immediately. I've never used to talk, but when I was talking to Tristan Harris, he was saying that that's one of the things about it that really hooks people right away. You open up the app and it just starts playing. You don't have to click on anything, you have to touch it. It just immediately starts playing videos for you.

## [00:16:43.750]

Yeah, it's true of most of the video playing platforms now. Tick tock. Certainly true. It's true about Netflix. They're all just designed to auto play. And so that's removing one of the decision points that might have stopped people from engaging. And as a result, we we just kind of automatically right in there. You basically want to take people from for not being in an experience to being deeply immersed in it as quickly as possible. And the more quickly you can do that, the more likely they are to to just find themselves kind of entranced by that process.

## [00:17:11.830]

So a lot like playing a slot machine. If you if you gamble and you sit in front of that machine, I mean, it takes only a couple of minutes for the well designed ones to hook you. And suddenly you're in a trance and you're losing and generally losing a lot of money. And suddenly an hour has gone by at two hours. There were no clocks that don't tell you that it's time to move on. There's no sense of daylight.

## [00:17:31.210]

You know, it could be the third sunrise. You wouldn't have any idea that's happening. And that's all by design.

#### [00:17:36.670]

Jamie just pulled up a statistic about Flappy Bird and the phones that still have it now are on sale on eBay.

#### [00:17:44.980]

Flappy Bird equipped iPhones are listed for 1000 to ten thousand dollars on eBay, with a few priced above 50000. An iPhone five, as with the app sold for ten thousand one hundred dollars, an iPad air listed at over eighty thousand dollars has received multiple bids. eBay nixed the the auction of a Flappy Bird equipped iPhone as it neared one hundred thousand dollars, the L.A. Times reports. A hundred thousand dollars, one hundred thousand dollars for a regular phone or a regular iPad that has this stupid game on it.

#### [00:18:24.940]

That's how addicted people are. Yeah, you should read it.

#### [00:18:28.390]

Check out some of the reviews of it. It's really it's pretty entertaining, actually, because these people, they have such a love hate relationship with it. They said these are reviews written around the time it was released in 2014. You'll see these reviews that give it a five star rating. And then I say next to it, this this game will be the death of me. I have this kind of addictive relationship with it. And they talk about, you know, this one guy was like, I've lost all my friends.

#### [00:18:52.210]

And it's so dumb because this bird who's flying around, I mean, it's the most trivial, silly thing. And yet

the experience is compelling enough that it has that effect on people. You know, it's it's not until you've played it. It also sounds silly. That's the thing. When I was playing it, when I landed after six hours of playing it straight, I remember just being like. What just happened, that makes no sense at all.

#### [00:19:15.440]

It's a very powerful experience. I had a serious addiction to a game called Quake for years.

## [00:19:22.670]

The first person I know after I had a real problem like eight to 10 hours every day, I had a T1 line installed in my house so that I could play. I wasn't I mean, I was gone. And one day I just shut it off. I just stopped playing. I couldn't do it. I realized what was going on. I was tired all the time. I was playing to like four or five o'clock in the morning and then sleeping to like noon and then playing it again.

## [00:19:46.670]

It was really bad. And it's. Yeah, and it's a game that is uniquely addictive because it's so immersive. It's a 3D experience. The sound is 3D and it's very competitive too. So you're you could hop online and you're constantly playing with these other people all over the world, really, and these servers. And there's a lot of people that lose their life to these games. And that's not as addictive as apparently World of Warcraft. Is that one of the things that you were saying is the most addictive game?

## [00:20:17.740]

Yeah, I mean, it's been labelled the most addictive experience we can have or we have had, that doesn't involve a substance and really based on the numbers. Yeah, based on just the numbers of players, it's it's not at its peak anymore. It's being eclipsed by some other experiences. But at its peak, I mean, it had tens of millions of users and they were playing for hours and hours and hours a day, people just forgoing sleep to play in the middle of the night all day.

## [00:20:44.410]

Sometimes there are stories of people who played so much that they would sit in diapers because they didn't want to have to go to the bathroom. Just incredibly powerful stuff. Yeah.

#### [00:20:53.620]

And what is eclipsed it? I think there were just newer experiences like fortnight fortnights, the really big one that I don't know if it's suppost World of Warcraft, I think World of Warcraft was a more kind of colossal experience, disrupted the world of video game playing more profoundly. But there's also been a big shift in the way we play and who plays video games. Historically, video games were always like you for me was doom. I would play doom for hours and hours and hours.

#### [00:21:22.110]

Same as the same developer who just preceded Quake. And you know that that was typical of gamers. They were often young males, teen age or adolescent aged or in their early 20s. And it's really shifted with the advent of the iPhone in particular. So because most games now are being played on iPhone screens or in smartphone screens, the biggest demographic of gamers from I think it was about and 14 or 15 on became middle aged women. So it's a big shift in who tries games.

#### [00:21:54.480]

And Larry spends the most time because it's a big change.

## [00:21:57.300]

Those are the ones that were yelling at their sons just a couple of decades ago. It was middle aged women, you know, get something going with your life. What are you doing?

#### [00:22:05.940]

And now they're doing it. When you see these games and you see this massive addiction that human beings have to them, and then you see the technology increasing rapidly. Does I mean, do you

anticipate us being in The Matrix in your lifetime? Yes, some version of that, I think, you know, what's what's really smart about the devices we use now, at least from the developers perspective, is we most of us resist the idea of having an implanted tech device.

## [00:22:38.460]

Like we don't want something implanted in our brains yet. We're still pretty queasy about that idea. But if you ask people, 80 percent of adults will say that they can reach their phones twenty four hours a day without moving their feet. So that's when they're not physically implanted devices, but they're already basically there. And then down the road, if you speak to people who work in virtual and augmented reality industries, they'll tell you, you know, we're only a couple of years away from this being a huge commercial success where just as we now almost all universally from quite a young age, walk around with our own personal iPhones and smartphones, we're going to be doing the same.

## [00:23:14.760]

But they're going to be virtual reality glasses. And so you'll be going somewhere. And at any moment in time, instead of deciding whether to live in the moment or pick up your phone, it'll be do I want to live in this moment or live in an alternate reality where, you know, I can go exactly where I want to go, do the thing I want to do, spend time in a virtual space with exactly who I want to spend time with.

## [00:23:34.260]

I think it's going to be incredibly hard for us to to resist the temptation to do that. And that's going to create a literal physical barrier between human beings. I think we're all going to be living in our own little universes eventually if things go the way they've been going.

## [00:23:46.200]

Well, if I was conspiratorially minded and I kind of am, but only for fun, I would think that someone is probably set that ball in motion with covid, with covid and the lock down. It's almost like if you wanted to make a movie where artificial intelligence wanted to figure out a way to hook us deeper, artificial intelligence would release a virus and they would force us to stay inside.

## [00:24:14.970]

It doesn't kill everybody, but it makes people scared. So you stay inside and it connects you even deeper to computers and maybe more importantly, separates you even more from the human experience of touching and being around each other in social cues and social gathering. And it makes it even more compelling to do things virtually more compelling to be on your computer all the time and messing with applications. And then while this is all going on, something far more immersive is released when you're already accustomed to it.

## [00:24:47.850]

Yeah, I've got to say, I mean, life in the last decade in particular has has got way stranger than fiction. Yeah. The real world right now. There is so much about it that just seems like it can't be real. If anyone wrote a movie with the script of the last five to ten years, how about the last four here.

#### [00:25:04.130]

Oh oh the Lost Boys. I think the last four people would say this is this isn't. Yes, no, it's nonsense. Like what? It's going to be great Hollywood stuff that we're looking at here. But, you know, the interesting thing about this pandemic period for me is I think it might have a weird backlash effect where we've all been forced to to spend time on screens instead of going to the screen because we we love it and we're attracted to social media and whatever other things we're doing on screens, a lot of us are being forced to use them.

#### [00:25:33.840]

And one thing that's changed is sentiment towards screens. I think a lot of people have just over it. And so when we post all of this, I think there's a chance that's going to be the catalyst to push people away from screens a bit. Because if you you know, before this, if you you speak to especially younger people, they'll say and then it's true for me, too, I would rather just use the most remote form of communication possible.

## [00:25:55.170]

Whatever's easiest. I don't want to have to speak on the phone. I don't want to have to see people. Let me just send a quick text or an email or WhatsApp or whatever. And I think there's a shift now where people like craving that that true face to face time where you're actually sitting in front of a person having a real conversation. And that's that's been, I think, a shift in the last roughly eight or nine months.

## [00:26:17.130]

I think there's people like you that are craving the experience of being around other folks, because I think you're aware of the repercussions of this virtual experience that we're all engaging in and the addiction to screens and screen time and phones and games and applications. But I think there's plenty of folks that are happy to just get lulled to sleep and sucked into it. And I think that's my real concern. My real concern is mindful, thoughtful people like yourself that are, you know, that are saying, listen, we need, you know, just a real experience with human beings and we're revolting and leaving.

## [00:26:53.850]

But if you look at the numbers in terms of human beings, like what the average screen time, all that stuff is going up, the use of these things is all going up.

## [00:27:04.740]

And I think there's folks like you that would like to think that we're rejecting it. But I think it's a it's a minority that's rejecting it. I think the minority, the majority are embracing it. I think I think that that might be true. I mean, I think one of the big drivers of screen time is if you take psychological needs away from people, the things that are really important to them to function psychologically, that's when they turn to screens.

## [00:27:30.000]

That's when I turn to drugs. That's when they turn to alcohol. That's when I turn to all the things that Soudas and screens do that they are a kind of a non substance way to to be soothed. That's what happened with me on that flight for six hours. That's what happens when you're on social media scrolling mindlessly, when you're watching tons and tons of videos online. All that sort of stuff is is a way of soothing you. And I think people need to be soothed more than ever right now, because this is a is a hard time for a lot of people.

#### [00:27:57.060]

It's hard financially. It's hard because you're socially distant from people. It's it's just it just creates this kind of pall of uncertainty that sits above everything we do. And humans hate that. We don't like uncertainty. We don't like not knowing what's coming around the corner and not just about the pandemic. I mean, politically and a lot of different ways. There's a lot of uncertainty right now. And for the last while and when you put people in that state, they're going to turn to screens.

#### [00:28:21.810]

I don't know if that's an enduring thing, but any time you rob people of well-being, of some sort of psychological need, they're going to try to find it elsewhere. And one of the ways that do that is now the easiest way to do it is to turn to the screen.

#### [00:28:34.350]

Have you spent any time at all playing virtual reality games?

#### [00:28:39.280]

Yeah, I it's funny, I when I was doing the research for this book, I spoke to a game designer, a brilliant guy at NYU. He sent the NYU game center named been at 40 and he teaches he teaches game design. He's designed a number of phenomenal games himself. And he told me something that I found fascinating and I took it on board.

## [00:29:00.510]

He said to me, I asked him about World of Warcraft and I said, do you enjoy it? What do you think about it? And he said to me, I know that if I stop playing that game, I don't play it at all, or I'm going to basically be giving up years of my life and I don't have the time to do that. So I just have never even opened the game to play it. It's just not something I want to do.

## [00:29:21.720]

And that's that's how I have felt about most of those experiences. I did play one virtual reality game. It was with a haptic suit, so basically fits over you. It was just Ghostbusters game. And I grew up watching Ghostbusters and I loved it. So. So the ghosts fly through you and you can feel the suit compresses. And so it feels like they're actually kind of biting into, which maybe doesn't make much sense because they're ghosts. But you fly around with one of the little Ghostbusters guns and you're in New York City and you're running around.

## [00:29:51.720]

This was a ten minute experience. But if you had told me that I could give up the next 48 hours of my life, put on the suit, run around, no food, just just do this for forty eight hours. It was so incredibly immersive and engaging and interesting. I would have done it. It was it was amazing. And it wasn't even like that's not even where we're going with this stuff. This was, you know, step one out of step ten in terms of sophistication.

## [00:30:16.350]

This is the early days. It's only going to get more compelling.

## [00:30:19.380]

Are you aware of sandbox? You've heard of the company sandbox? No. Sandbox is it's a virtual reality game destination. So you go to this place and it's essentially a warehouse. And inside of it, they have these arenas set up for games and a series of games that you play. And I plan with my whole family. We put the haptic feedback suits on virtual reality helmets and you kill zombies, you fight off. Skeleton's on a pirate ship.

## [00:30:44.250]

There's a bunch of games and it is wild and you see it and you go, I see where this is going. Like this is right now. Pretty immersive, pretty immersive, really, really fun, very engaging, exciting to do. But, you know, for a fact that it's just going to keep getting better and keep getting better. And right now it's insanely addictive. I get so pumped up to do it. When we do, I'll go with my family every couple of weeks or so and we get so excited when we're on our way over there.

#### [00:31:10.920]

Luckily, it's got a set time. It's it's a one hour experience and when it's over, it's over. But, my God, you know, you're you're in it. There's one of them where you're in a haunted house and you're fighting off zombies and they're just running at you like hundreds of them. You're gunning them down. It's so exciting. When they get a hold of you, you feel their touch.

#### [00:31:28.950]

Like in the haptic feedback, you see red in front of your face, like you're getting torn apart. It's wild. And you know that this is essentially like doom, right? If you play doom today, it's the pixels are enormous. It's just like it looks clunky and square ish and block ish. And I mean, it's fun still, but it's so it it's so crude in comparison to a modern game, you know, with the modern games have like there's a new unreal engine.

## [00:31:57.840]

And we were playing a video of it the other day because it's so hard to believe that this is just a video game. And in this this video game, the lighting and the textures in the shadows are so exact. It's so incredible.

#### [00:32:11.490]

And you just have this feeling of an air of inevitability. Like, there's just going to come a time where you're going to be in this virtual reality thing and you're going to have a whole haptic feedback outfit from your fingers to your toes all over your face, and it's going to it's going to be better than real life.

## [00:32:31.700]

And that's what everyone's terrified of. Yeah, and I mean, it's it's hard to it's hard to avoid that, right, that that feeling, that excitement that you have is you're about to play. Imagine if that were always available to you at any moment of the day. It would be hard to resist it. Yeah, I, I felt the same way about that, that very brief experience with Ghostbusters that goes past this game. It was just there was a level of excitement and, you know, you used to have to kind of suspend disbelief like you, as you say, would doom.

## [00:33:00.520]

You'd have the pixels and you'd be like, yeah, it's not quite real, but it's real enough. And then there was this point where everything just the processing speed, the sophistication of the development, the design, you could make it seem basically real and it's only going to become more so. And so you don't have to suspend disbelief at all. The minute you're in that experience. It's there, it's real. It might as well be real.

## [00:33:21.370]

What bothers me is people way smarter than me that aren't worried about it. You know, I had John Carmack on the podcast, who I'm a gigantic fan of. You know, he's the guy who created Doom and Quake and engineered those engines. He's his take on phones was basically, well, people enjoy them and they make life better. And he just doesn't seem to be worried at all, and, you know, obviously he makes games and he's working with oculist.

## [00:33:48.680]

He was at the time at least working with Oculus, making all these games. And he he's also a very disciplined person. So he'll code for 16 hours a day, you know, and he's also.

## [00:34:01.300]

He plays that there's the one game we have the the drumsticks and the things are coming at you and you're swinging at the air and knocking these things down. What is that game called, do you know? I can't remember.

## [00:34:12.010]

I know the game. Yeah. I can't remember what it's called. Saber beat, saber Jamy Speed Saber. But he does it at an insanely high level where he's basically getting this wild cardio workout in like like he's doing some sort of stick fighting martial art.

#### [00:34:29.020]

You know, it's like swinging his arms back and forth through the air. And he actually it's a cardio workout. Like, you can do that.

#### [00:34:36.310]

And there's there is some benefits to like there's a boxing game you can play on Occulus or no HTC Vive. I played it on.

#### [00:34:44.650]

And when you play this boxing game, you're you're squaring off against an opponent. And when you get hit, your screen lights up like you got hit in sparring and you can maneuver around. So it's actually a workout. You actually move around this person coming at you and they turn with you to try to meet you. They know where you're standing and they they swing at you and you can you can do certain things where it's actually beneficial. You can get some exercise.

#### [00:35:09.550]

I've seen some of their engineering now with omnidirectional treadmills. So you have a harness

around your waist.

## [00:35:19.210]

You're connected in position on this omnidirectional treadmill. So you can go anywhere you want and you're running and you're shooting at things and running and you get this great workout while you're having fun.

## [00:35:29.620]

So it's not all doom and gloom. No, I totally agree, I think there's a temptation to fall on one end of the spectrum or the other, and I don't think that makes sense, as with most issues in life. There's some nuance that's got to come in. So there are people who will just talk about screens are going to be the end of the world. And there are people who will say there's absolutely no problem. And everything we're doing is is good for us and healthy and making the world better and that the truth is somewhere in the middle.

## [00:35:56.240]

And I think it also varies by by the person and what kind of experiences you're having. If you're someone who is sedentary, you weren't working out, you weren't moving. And suddenly you find this game that encourages you to to run and move around. That's got to have some beneficial effects.

## [00:36:11.690]

If you get someone who's unnaturally disciplined like John Carmack, then great, then you're able to say, I'm going to take the best from screens and I'm going to resist the worst and I'm just going to move on with my life. But, you know, the data don't lie and the data suggests that the amount of time we're spending in front of screens has gone up dramatically. And when you speak to people about it, they don't say, I'm happy about that.

## [00:36:34.530]

They say, what? What is going on? Where is all that time going? Yeah, so so that's that to me is the most compelling thing that we want to try to work out. How do we extract the best and leave behind the worst with with screens, with any kind of technology, with any kind of shift in the world? You always want to try to do that across the population, find the stuff that's damaging, weeded out, and find the stuff that's useful and try to capitalize on it and emphasize that.

#### [00:36:58.650]

I think that's what that's what this project is all about. It's about certainly not throwing out the baby with the bathwater and not not trying to roll back to the nineteen fifties here. We want to retain the screens, but work out the best way to use them and the best way for us to resist them when we need to do that. Yeah.

#### [00:37:14.180]

These Dance Dance Revolution people, they figured out a way how to, how to get something positive out of a video game. Right. There's a lot of people that played that game that lost a ton of weight. So there are some things that you could say would be beneficial because the game is addictive. But while it's addictive, you're also getting in shape. Yeah, absolutely, I mean, there's a there's a good example so that there's the physical side of it and then, of course, like the mental experience of being on on screens can be very, very positive for us to you know, you're learning languages that you wouldn't have otherwise been able to learn.

#### [00:37:49.550]

You're being exposed to people and experiences that you could neither experience because you live far away from them. I moved to the US in 2004 from Australia. And, you know, it's hard to believe it's only 16 years ago, but this is before YouTube. This is the same year that Facebook came about. I couldn't really find a good enough Internet connection to be able to speak with video to my family in Australia, and that only came a couple of years later.

[00:38:14.120]

So that's a miracle that during this time of lockdown, when we're all so far apart from each other, we are able to actually communicate through these screens in a way that's basically seamless.

## [00:38:25.880]

Do you worry when you're researching this and you're spending all this time working on this subject and you accumulate all this data and you look at the big picture and you look at where this is going, do you think that we are on our way to being obsolete, that human beings are going to be either replaced or we're going to have some sort of a very bizarre, symbiotic relationship with electronics where we're not like we're not what we think of as people right now?

## [00:38:57.130]

I don't worry about humans being replaced as much as I worry about humans becoming just isolated entities, and I think humans for all of evolutionary history have always been in groups and tribes. They've had to come together. They've relied on each other. They formed coalitions. I worry that the way we get most of the psychological needs met, the psychological nourishment it used to require getting together as a species, coming together in certain ways. And I think when you can get so much of what you need from a device that you strap onto your face, that basically separates you from everyone else around you.

## [00:39:33.520]

I do worry about that. And I also think there are certain critical periods in maturation and development for kids when they learn how to interact with other people. They learn how to work out the difference between someone being angry and someone being afraid. I work out, you know, if you take another kid's toy, the kid's going to pop you on the head and say, that's not OK. You've got to learn that stuff through trial and error. And I think because kids are placed in front of screens at such a young age, many of them, and because these devices are going to remove us from the contact with other people, I just think we're becoming a much more isolated species.

## [00:40:08.110]

We used to call humans the social animal. That's still true for sure. But it's it's kind of an impoverished, stripped down version of what it means to be social if you compare to even 20 years ago.

#### [00:40:19.090]

Yeah, that's what I'm talking about when I'm talking about us being almost obsolete is that I worry about the advent of A.I. and I worry about things like neural link where you're increasing the bandwidth that human beings have to access information. And I'm not exactly sure what kind of effect that's going to have on human beings, but I'm positive that whatever effect it initially has is going to exponentially increase over the next few decades. And then I'm worried that, like you said, most people's phone is never more than a hand arm's reach away.

## [00:40:56.710]

You wake up in the morning, it's right there by your bedside. People are always constantly checking their pockets. When they get up from the dinner table, they always want to have their phone. How long before we let them stick that thing in us? How long before you have a chip that that sits in your arm or something real simple that just, you know, goes under your skin in a very easy way and doesn't it's not very painful, but you have some access to everything that you want.

#### [00:41:21.220]

And then slowly but surely we start replacing body parts.

## [00:41:24.910]

I mean, I'm yeah, I'm genuine, genuine. I know it sounds science fiction and ridiculous, but I'm genuinely worried that what we think of as human beings now, this is like a legacy version of human beings and that 20, 30 years from now, it's going to be obsolete.

[00:41:41.860]

But I mean, just go back 20 years. Imagine you could you could go back to the year two thousand and speak to people and say, hey, you're going to go to the restaurant and everyone's going to be sitting isolated, looking at a small device. And then they're going to go home. They're going to spend four hours looking at that device and then they're going to wake up in the morning and look at that device. I've been asking this question of thousands of people.

## [00:42:01.990]

I basically ask them from age 13 up to people in their 90s, would you rather now have your phone broken so you can have your phone shattered in front of you? Or would you rather have a broken bone in your finger? And older adults say, I would rather have a broken phone, but if you ask teens and adolescents, about half of them say, well, they want to bargain with you first. They're like, we're not broken my hand, can I still swipe my phone?

#### [00:42:26.800]

But a lot of them will say I would rather have a broken bone in my hand than a broken phone. Now, imagine going back 20 years and saying to people, there's going to be this little device and people are going to be willing to have body parts broken to preserve the integrity of that device. And it's going to be worth only a few hundred bucks. People are going to say that. People would say that's crazy. And I think this has been like a long 20 year process of desensitization.

## [00:42:49.840]

You know, the stuff that we're willing to do now, we're willing to give up for five, six, 10 hours of our days to screen experiences that at the end of the day, we look back and say, man, I didn't really want some of those experiences that wasn't good for me. I don't feel happier or better off. So you extrapolate, you look forward. I mean, this is the beginning of an incredibly long road or a toll mountain.

## [00:43:11.350]

We're just at the very base and we're moving upward. And that's why I'm talking about VR and I are a neuro link and all of the kind of augmented reality, artificial intelligence that's around the corner, all of that stuff. We're going to look back at this. And this is going to look quite in the same way that looking at people watching TVs in the 50s, looking at that little square wooden box looks quaint, where there it feels like we're at some destination, but we're on the road and it's still very early on that road.

#### [00:43:40.360]

And this is one of the really important reasons, I think, for thinking so carefully about this stuff. Because if we don't if we don't think about it now, if we don't think about how to manage it in our own lives, it's going to affect us as individuals and in our small communities. But I think it's going to affect the whole planet on some level. So it's really important to at least be mindful about the choices we're making.

#### [00:43:59.650]

I agree with you every step of the way. But my my concern is that it doesn't matter what we're saying here, that this is like we are like holding a thousand bison as they run towards the cliff. We're like guys, cliff, guys behind me, the they're just pushing us back and we can't stop it. That's what it seems like to me. I, I agree with everything you're saying, and I bet this is going to resonate.

#### [00:44:24.970]

Well, all the people that are listening and watching this right now, they're going to go, yeah, it makes a good point. And then they're going to grab their phone and go home, call me who's texting me.

#### [00:44:32.350]

What's this with that? And they're going to get sucked right back into it. Yeah, they will, and and this is the this is the eternal problem with this, that.

#### [00:44:44.380]

We we are up again. I'm sure Tristan Harris said this to you the other day, that we're up against a very

powerful, impressive foes and they know all the right buttons to push. And if they don't know, they'll collect data to be able to answer that question and then they'll institute those practices in their products and they'll they'll put those features into their products that seem most capable of bypassing our resistance. Yeah, but I do think I'm a little bit hopeful.

## [00:45:13.270]

I'm hopeful because a lot of this is going to depend on on, I think, two things, you know, there. Right. Kind of top down influences and bottom up influences. The bottom up is grassroots. The fact that we're talking about this is a big step forward from where we were just three or four years ago. So in 2014, I was preparing to write this book and some of the people I spoke to about it said this is a storm in a teacup.

## [00:45:37.120]

No one cares about screens. They're all good. It's nothing to worry about. They were already doing a lot of the same things they're doing now. We just weren't really sensitive to those issues. Now, between 2014 and 2017, when the book actually came out, sentiment swung dramatically. Suddenly just I'd say millions and millions of people started to care about this issue. And now it's many, many millions, maybe even billions of people who are really paying attention to it.

#### [00:46:00.370]

So it's good that at least awareness is there. That's something that's the first step. And then the top down influence is can you shape how our companies use email? You know, like if you can get a lot of the biggest companies to start saying, hey, you know what, email is kind of destroying the lives of our workers. Maybe we're going to try to institute a policy where when they go on vacation, they absolutely don't have to check email.

## [00:46:21.160]

There are these these companies in Germany in particular, and other parts of Europe that have this vacation policy where when you go on vacation, every email that comes into your inbox is automatically deleted. So your inbox, the way it looked the day you went on vacation, does not change until you get back from the vacation. So you don't need to check it while you're away. And so that's the top down influence. And then, you know, the question about whether it's a really, really hot button issue, should should governments intervene?

#### [00:46:48.310]

Should they start changing the way tech companies operate? Should they legislate how we use these products for very understandable reasons. I think a lot of people bristle at the idea that government should get involved. But these are questions. They're open questions. And some of the countries around the world have said, yeah, governments should probably get involved. We should it's not going to fix itself and it's not going to be fixed by grassroots pressure, by consumer pressure.

#### [00:47:11.920]

So we're going to have to do something from the top down, which is how a lot of governments deal with drug issues. They go to the source.

#### [00:47:17.770]

I think it's a real problem if you let the government intervene in something just because you think it's addictive.

#### [00:47:23.530]

I think if if you're dealing with issues of censorship on social media and things along those lines, I think yes, I think the government should probably they should probably figure out some sort of revision to the First Amendment, because it seems like these platforms, it's not as simple as this is a private company, because this is a private company that has immense influence over the way the world communicates.

#### [00:47:46.660]

It's just too big of a pipeline to say this is just a private company and we can decide who's on our platform and who isn't, because you're seeing things censored by ideology and you're seeing this polarizing effect that that has between Democrats and Republicans in the United States and the right and the left. And but that's one subject that's just about free expression and free speech, which is a cornerstone of our democracy, a cornerstone of our culture.

#### [00:48:12.700]

But addiction like here's the thing.

## [00:48:16.150]

If you want if you want to be competitive, there's no way you're going to allow emails that come into your inbox to be deleted when you go on vacation.

#### [00:48:27.250]

If you're one of those people that's all about kicking ass and taking names and our companies going to the top, you're not going to allow that because what if that email gets deleted in that email could have a critical information that could help your company and that could be the next level. And you can get that promotion you've been working towards. And people are not going to go for that in America. They might go for it. Germany, and good luck to you.

## [00:48:47.260]

But in America and competitive business practices, I just I can't imagine that people are going to agree to something like that. And the idea that I don't think that you're suggesting this necessarily, but that the government should step in and say, hey, you know, when you're on vacation, you get two weeks of vacation every year. And when you're on vacation, all your emails get deleted.

## [00:49:06.790]

People are going to go, fuck you, I need those emails. What, are you crazy? Yeah, I don't believe they should do that. I think that's absolutely absurd. What do you think when you say the government like. Yeah. One thing they could do is they could intervene with protected classes like kids, so kids are incredibly vulnerable on screens. A friend of mine who writes about these issues near Al talks a lot about protected classes and that we have we have to have separate laws for people who like if they want to sign up, if an adult wants to sign up and say, look, I need help, I'm addicted to screens, I'm spending 12 hours a day on them, I want some help.

#### [00:49:46.910]

Can you help me or all four kids who are also a protected class, perhaps the government could intervene and say we need ways to ensure that we're protecting these these classes of people who basically either they've identified as needing help or they are kids and by definition need some help. So the government might intervene there. I mean, this is this is the thing about this issue. I've been thinking about it for six years. There is no magic silver bullet.

#### [00:50:10.940]

It is one of the it is an incredibly difficult thing to solve because, as you say, if you are telling people, especially in the US, we have found a way to make you happier and healthier, but it's going to make you much less competitive and there's a chance you're going to miss out on opportunities no one is going to buy on that. And then I'm going to say that's fine. And different countries and cultures will have a different balance that they strike.

#### [00:50:33.080]

But that's what makes this so difficult, is that in the moment, a lot of us want to be doing these things. We don't want to be deprived. We don't want our immediate liberties to be deprived, our ability to scroll mindlessly. If a government intervene and said you're not allowed to scroll on your screen, I bristle at that. And I think most people would even if we know that maybe that'll make us more productive and happier in the long run.

[00:50:54.500]

It's just not what we're looking for from some governments. So you ask what I think we should do. I think it's incredibly difficult. It's a really difficult problem. I don't know that there's a very obvious set of solutions, although I think we should be very, very mindful, especially with respect to kids, because I think they are unbelievably vulnerable and sometimes their parents don't really know what to do. So it's a difficult problem. And so I think we should be open to to more.

## [00:51:22.220]

I don't know if extreme is the right word, but more intense interventions.

#### [00:51:25.520]

So when you're writing a book like yours, do you get this because we both have the sort of same conclusions that it's really difficult, enormously difficult problem and there's no clear cut solution. Do you have a feeling, a sense of almost just.

#### [00:51:42.670]

Just futility, just like what is the point of all this, this is this is moving in a direction that I can't see. I mean, maybe you can give out advice that a scant few individuals will act upon that a small percentage of the people who read your book are going to go, you know what, Adam makes a good point. I am. I'm going to cut back. I'm going to delete all my apps. I'm going to I'm going to get to get a flip phone.

## [00:52:07.000]

I'm going to I'm going to do something. But how many what percentage are going to do that?

#### [00:52:12.040]

It's a weird thing when you write a book like this, because the book for me was it was it was supposed to be not an exposé, but it was supposed to be a hey, there's this thing that you haven't been thinking enough about and it's an issue. And we should probably focus on it more than we have been. That was my intention. So it's it's not written as a self-help manual. It's written as a let me uncover what's going on here.

#### [00:52:32.890]

And so you can understand the psychological hooks that are embedded. But as I've been speaking about this to audiences for the last three or four years, everyone wants a solution. And you're right, there are going to be a lot of people who would just like I don't care about this, I'm fine. I'm happy. I just leave me alone and that's fine. But when I'm in front of audiences and I can be anything from people who work in the tech industry to the parents of kids, to school districts, to big companies, I mean, it just it varies pretty dramatically.

## [00:53:06.010]

But one of the things I always say is tell me, all of you, from one to 10, how big an issue is this for you and how much do you want it to change? And most people fall at the top half of the scale there, like a six or seven or eight. Now they're in front of me. Right. So it's possible that that's just what they're saying in that moment. And in fact, they when it comes to push, comes to shove, they're not going to do that much about it.

#### [00:53:29.770]

But the solutions that I'll share or the suggestions that I'll share, they're incredibly straightforward things like cultivate a habit where you don't have fun at dinnertime. This is not a high tech solution to a high tech problem. It works. I've managed to do this. A lot of the people I know have managed to do it. And even these small interventions, they're very analog. They just like put your phone in a drawer for a couple of hours a day.

#### [00:53:50.710]

Don't put your phone in the bedroom. Yeah, that stuff matters. And I think the best we can do, the best I feel like I can do right now is to talk to the end consumers of tech. And if they want to hear the message that I want to hear that this is a concern and what you could possibly do about it, that's

great. If they don't I'm not a proselytizer. I'm not I'm not trying to convert anyone to my view.

## [00:54:10.690]

I just wanted to put this out there and to have people say, oh, yeah, this is a thing. And it seems like people are on board with at least that part of it. But like you and I, they're not sure what to do about it.

#### [00:54:20.620]

One of the things that's helped me immensely is doing this podcast, because while I'm talking to people like you for hours, there's no phone, there's no no distractions. And it's one of the things that I love about wearing the headphones and just sitting across from someone in this case, virtually, but most of the time in person talking to someone. It's just a conversation. That's that's all it is. There's no there's no checking the phone. And that is so rare.

#### [00:54:50.200]

It's it's such a strange time. We're checking a phone becomes like one of the most common activities that a person does throughout the day.

## [00:54:58.120]

If you just if you just looked at how many times a person checks their phone throughout the day versus all the other things, they do have a glass of water, go to the bathroom, all the various things people do every day, that's at the top of the list.

#### [00:55:13.420]

And again, like you're saying, ten years ago, no one would have ever imagined that was the case.

## [00:55:18.940]

Yeah, I mean, I can't imagine there are too many people on the planet who spend more time in conversation than you do. And, you know, there's incredible benefit to that. And most people, when they have those deep conversations with other people, they recognize that benefit. They enjoy it. And so, you know, one of the pieces of hope is that, you know, if you tell people try to try this for a while, try this for a week, don't have your phone at the table when you're having dinner, it's hot at first, but people who are always used to just kind of mindlessly scrolling through dinner.

#### [00:55:49.570]

But most people end up finding that there's quite a lot of benefit to it and I enjoy it. So part of this is to get people to have the experience of what the other side could be. But but, yeah, you're right. These these conversations are rare and for most people, and picking up the phone is one of the most common things we do. We spend on average, the average American adult spends for four or more hours a day on a cell phone screen.

#### [00:56:14.770]

It's a huge amount of time and most people don't believe it.

#### [00:56:18.190]

Yeah, it's hard to imagine when you look down that number. And you know what? Because you just think of it in these little tiny chunks, like a few minutes here are there. But those few minutes, you know, there's 60 minutes in an hour, they add up quick.

#### [00:56:29.560]

And yeah, when you were what was the most disturbing thing when you were researching this and you're looking at all these trends, what was the most disturbing aspect of it for you, if there was a most. There were two. The one was the you know, there were people who play video games more than they would like, but then there are people at the very top end of that spectrum who are just absolutely helplessly addicted, that they'll play or play games for five weeks straight, put on 50 pounds, lose their hair, sit in diapers, have to pay someone to bring pizza boxes to their room until the theater just piles and piles of pizza boxes.

## [00:57:12.090]

I met some of these people and spoke to some of them. And those stories I just found completely shocking.

#### [00:57:18.090]

I was sitting tell the story about the football player, if you would. Yeah, I mean, he's the he's the one I'm thinking about.

#### [00:57:24.360]

Now, this is a guy who just basically told me he was a he's a very strong student. He was in college. He was a straight-A student, and it was on the football team. So he was a student athlete, very bright, very capable and slightly lonely, felt a little bit distant from other people and started playing World of Warcraft, formed a guild flag with some other players and just found that experience. It just incredibly immersive and rewarding.

## [00:57:53.910]

He loved the social aspect of it more than anything, and he felt a sense of obligation, I guess, that there were people playing at different parts of the world. He was playing with people around the world. And so when it was nighttime where he was, other people would be playing because it was daytime where they were. And so he started to stay up later and later and later his his sleeping hours shrank and he ended up flunking out of college.

## [00:58:16.500]

It's happened twice, actually, because he relapsed after he got treatment and he flunked out of college.

## [00:58:22.710]

He put on he he told me, I think he said he put on 40 pounds of fat in a period of five weeks and five weeks straight, sitting at the screen playing the guy in twenty three hours a day. He said between twenty three and twenty four hours a day. He told me he didn't use a diaper. Not that accounts for the hour a day. But he didn't bathe and he had he paid this doorman to bring up boxes of pizza.

#### [00:58:46.310]

So that's what he was eating, eating basically pizza three times a day and he was unrecognizable by the end of it. Looks different. Filed out of school. That that to me was that was one of the two most shocking things, was hearing these stories from people face to face, explaining what they had gone through. I just and there's no substance involved. You know, you hear these kinds of stories from from substance abuse. But but the idea that an experience can be compelling enough to have the same effect on some people that I found that really shocking.

#### [00:59:16.140]

Yeah. And the fact that he relapsed to like he got over it, recognized that there was a giant issue and then the lure of it drew him right back to the computer.

#### [00:59:27.270]

Yeah, he he went for treatment. He went for a dose of treatment. It was expensive. He was lucky that his family could afford it. He went to this facility just outside of Seattle called Restart. And they take in most of the young males and they they teach them how to cook and clean and all these things that seem to kind of pass by a lot of people and being self-sufficient and not just being stuck in front of the game. They expose them to nature.

## [00:59:52.950]

They get them outdoors. They teach them how to play sports. They get them to exercise a little bit. They feed them healthy meals, all this sort of stuff. So he went and he did this for a few weeks. And at the end of it, he thought, OK, I'm going to go back to the life I had before and I'm not going to play this game. I'm not going to play World of Warcraft. And for a while it worked.

## [01:00:12.810]

But one of the things one of the mistakes he made is that he basically went back to the exact context he had been in when he had that addiction in the first place. And so soon enough, a period of loneliness. He was inspired to just fire up the game. And he said, you know, I was just going to play one more time. Suddenly it happens all over again, which is what you hear from people who have have drug abuse issues as well.

## [01:00:33.900]

You can't you obviously can't just do it one more time. And so you have to go back to the facility now. This time when he finishes treatment instead of going back to college, he actually stayed out there. He lives and stayed out in in Washington state.

## [01:00:48.630]

So he's clean now. He's still in touch with this guy is he's clean.

## [01:00:54.660]

He's a tremendously successful guy. He's a businessman. He's doing very well. And, yeah, he's doing well. And I think a big part of what helped him was just completely removing himself from the context that was problematic for him. That seemed to be a huge part of what allowed him to get past it.

## [01:01:12.210]

There's a certain aspect of of people when they get addicted to things that I've heard people try to figure out what that is or why people get obsessed to certain activities and they think that it's something that it's your highjacking or the games or hijacking some positive evolutionary trait where you get obsessed with trying to get good at things that will.

## [01:01:41.810]

Help your survival, like be a better hunter, learning how to fish, learning how to fight off your enemies and becoming obsessed with these things has allowed people to thrive and survive and procreate and that somehow or another, these games hijacked. Is that accurate?

#### [01:01:58.630]

Am I? I find that explanation really compelling. I mean, if you think about it, if you had driven towards mastery, towards completing goals, rather than leaving them incomplete, that's going to predispose you for a lot of the kind of traits to succeed, especially going back thousands of years. If you are on a hunt and you decided, no, I'm good, I'm done, it's not going to work out today. You know, if you were that person, you didn't succeed and your ancestors don't.

#### [01:02:24.910]

Your your progeny don't exist. There's no one here to speak for you. But if we exist today, that's because our ancestors were the ones who said, actually, no, I'm tired, I'm done, but I can't be done because I need to complete the goal. The mission has got to be complete. And so there's this overhang of this now, which is, as you say, the unproductive part of that is that we we are really bad at letting things go as a species.

## [01:02:50.890]

You open up a loop for me and you don't try to do both. I hate it. Don't tell me half a story. Don't teach me half a skill. Don't tell me to read half a book or watch half a movie. Humans hate that. We all hate that. And it's productive in some contexts when it's good for us to finish what we start. But we're not in evolutionary prehistoric times anymore. We're not hunter gatherers in the same way.

#### [01:03:14.590]

And so you get these experiences on a screen. Suddenly you're playing Candy Crush and the old hunter gatherer in you who says, I can't give up on this experience towards dawn because otherwise I'm not going to survive. Kicks in and suddenly you're playing fourteen hours of Candy Crush or six hours of Flappy Bird. So I think it is a hijacking of some of the traits that were incredibly adaptive and beneficial in those evolutionary contexts.

#### [01:03:37.390]

But don't make a lot of sense in the modern world.

## [01:03:39.130]

In some contexts, it's so strange that these traits would translate to Flappy Bird. I mean, it is it's really weird.

#### [01:03:46.690]

It's really weird that these things that would have helped our ancestors survive, they can be hijacked. Yeah, I mean, look at so I'm a runner, I don't run, I'm not extremely fast, I don't run insane distances, but but I find ultra running absolutely fascinating and I find elite marathon running fascinating. This there's no good reason to do an ultra. I mean, there are good reasons that are kind of intrinsic, like the reward I would love to do on one day.

## [01:04:18.780]

But that is a hijacking in the same way. I mean, this is this is just kind of a it's a chip that is in there and it works for us and it worked for us in prehistoric times. But it doesn't distinguish between the occasions when it's going to work well for us and when it's going to work badly. I mean, it's the same with food, right? That that desire for sugar and craving for sugar, for salt, for fat.

## [01:04:40.170]

If you were running the savannah and you were looking for something that was calorie rich, calorie dense, that was going to be good for you, that was going to sustain you high, high sugar, high salt, high fat, great mix to give people the situation they're in today.

## [01:04:53.670]

They're still operating on those same principles that brains are still operating the same way. They're just as attracted to those things. But they have an endless font of of foods. They're going to give them those things in massive surplus. And that's hugely problematic. It's exactly the same with the brain responding to rewards, to mastery, why we do crosswords while we play games that get progressively more difficult, that suck up more and more of our time. It's a huge part of it.

#### [01:05:16.710]

The ultra marathon running thing is particularly interesting to me because one of my very good friends does it. His name's Cameron Haynes and he runs these three hour or three day races where they run two hundred forty miles. He does like he did the MOAB 240. He's done right. Big Foot race, which is two hundred miles. You're going through the mountain. And I think there's and he interestingly enough, he got involved in that because he is a hunter and he wanted to be have better endurance to hunt in the mountains.

#### [01:05:47.880]

And so he started getting obsessed with running marathons than ultramarathons in these crazy multiple day endurance races. But he it's literally for him that thing that we're talking about, these ancient traits that allowed persistence, allow you to be a successful hunter through that persistence and through that dedication and focus and discipline. He's sort of got stuck in this where he's just insane with it. He'll run a marathon a day, multiple, multiple days in a row to prepare for these things where they used to tell you you have to have six months off when you run a marathon.

#### [01:06:23.280]

Right. That was ancient wisdom. Like your body's so broken down after running twenty six miles, you know, he runs a marathon every day.

#### [01:06:30.910]

Have you seen the three Chinmoy challenge? This is this is I wrote a piece about it again. What is it called. It's three Chinmoy SSRI and then Chinmoy I and my I've heard that term.

## [01:06:45.690]

I've heard that it's it's insane. So what you do is you go to Brooklyn. I think it starts in May or June. You go to Brooklyn and there's this little block around a school. It's a nondescript block. There's nothing special about it. And you run a thirty one hundred miles.

## [01:07:02.460]

Oh, that's right. Over about sixty days. There's no scenery I can understand running the MOAB. I would love to do the Moab, the Western States bad water. I'm very attracted to the idea of doing that and I can totally understand why that could be a life changing experience. But running around a half mile block. Thousands of times. Six thousand times, I think it is, I just I struggle to understand it, but again, it is the people who do that.

## [01:07:27.290]

It's it's all about just pushing yourself and it's about the challenge and stripping it of its of its beauty, like making it in a place that's not beautiful. It's a city block. Makes no sense that that then just kind of exaggerates that it's all about completing the quest. The only reason people will do that is because there is that part of us. That's an extreme expression of that, that tendency. But we all have some of that in us, and especially people who are high on conscientiousness, who are kind of tenacious, that there's something about that that's really compelling and it's hard to ignore.

## [01:08:00.490]

There's something about completing tasks that gives you this little spark of dopamine. Right. This little something gets excited. And the more difficult the task, the better the feeling is when you've completed it. I've never run an ultra marathon, but I got a what is the longest you've ran? I absolutely punished myself running the New York City Marathon 10 years ago, it was hell, I remember I crossed the finish line completely depleted. And I know this sounds sounds a bit silly after we've been talking about this reach in my thirty one hundred mile challenge, but off to twenty six miles, I was just done and I hadn't eaten enough food.

## [01:08:38.630]

I remember crossing the line and this woman put a medal around my neck and she said, how did that feel. And I said that was hell, I'm never going to run another marathon. And she said to me, That's what everyone says, but I'll see you next year. And I've got to say, I have stuck to that.

#### [01:08:51.010]

I remember running. It nearly killed me.

#### [01:08:56.020]

Did you just not prepare enough for it? No, I prepared really well for it, but what I didn't prepare for was the ordeal of trying to get to the starting line in Staten Island. I mean, it's hell. So I ate my breakfast at, what, 3:00 a.m. and then the rice begins at something like 9:00 or 10:00 in the morning, depending on which way you're in. And so I had some food with me, but I just didn't I didn't budget for that six or seven hour period.

#### [01:09:20.680]

So I remember being at the starting line and being absolutely famished. I was starving, which is a terrible thing again. So I was I was the guy running along the course just like asking spectators if they had food, like mashing bananas in my face. I was I was just eating constantly throughout that whole race because I was so hungry. So that was my biggest problem. I mean, I think I should probably do another one where I get get the right nutrition because I probably be able to do a lot better and enjoy it a lot more.

#### [01:09:47.350]

And I do run a lot. I still run pretty regularly around where I live, like between eight and 12 miles. But the idea of training and for another marathon, I also have two young kids. It's just not something I have that much time for right now.

## [01:10:00.880]

Why did you eat breakfast so early? Because that's when I left home the bus you had to take. So this is the way it worked, was you had to go uptown. I live downtown in Manhattan. You have to go and get a bus at three a.m. that took I don't know why it took so long, but it took forever to get to Staten Island. It's cold because it's November in New York. It was just unpleasant. I think the key is to run a marathon that that you just show up, you drive your car to the marathon starting line, you get out, you start running.

## [01:10:28.650]

And that's what I need to do next time, because the New York City Marathon is an incredible spectacle. Millions of people watching it was I it was one of the most fun experiences I had for the first eight of the twenty six miles. But then it went downhill.

## [01:10:42.170]

How long did it take you to complete it? I it's funny, I trained and I wanted to run us up three thirty and all my training runs had been consistent with that. And then the day of the race, I could tell by halfway through it just wasn't going to happen. And so I was approaching the fourth. I started running with the guy who's holding the sign and it's three thirty and this is the Pacer. He said to me, I'm going to run this in three twenty nine.

## [01:11:06.720]

And I said, How can you guarantee that? He was like, well I can run up to 16, I should be OK. So, so I started running with him and then he, he just receded into the distance because I couldn't keep up by about mile nine or ten and then the three forty went by, the three fifty went by. I realized I was staring at four hours and right at near the end of the race, a friend of mine ran on and said to me, You're looking at a 401.

## [01:11:30.240]

And I was I was pissed. I was not happy because I wanted to run a sub for I basically said to myself, if you don't run stuff before, you have to do another one. So I ended up just finding some hidden store of energy and I ended up running a three fifty seven mile.

#### [01:11:45.390]

One of the things you talk about in your book is the addiction that people have to fitness devices.

## [01:11:52.130]

To these watches and iPhones and I wear a hoop strap and, you know, a lot of people that wear these things, they start counting steps and they they start looking at how many calories they've burned. I was in sober October contest a couple of years back with my friends. We were using the Mizen chest strap app and it calculates points based on how many minutes you are at 80 percent or above max heart rate. And and we were killing ourselves, just putting in six, seven hours of cardio a day.

#### [01:12:29.300]

Just madness. Your. Your take on them was mostly negative, right? You were, you were. Is that fair? Yeah, that's fair. I've revised my position on this, I think the bigger issue in the US is and in the world, in general, in the developed world, the bigger issue is that we're sedentary as a species. We don't exercise enough. So if these devices are pushing us to do more exercise, that's good.

#### [01:12:58.090]

But if there are people like you, like me, I am an absolute slave to my Garmin watch. And if I take it with me on a run, it's game over like I. I could be at the beginning of a run. I'll be standing at the end of my driveway about to go and I'll say to myself, you are going to run slowly, you're going to do a slow, long run. And 30 seconds later I'm tearing down the street because I'm looking at my watch, which is saying to me, why are you running just over seven minute pace?

#### [01:13:24.670]

You should probably dial it down to six fifty or something like that. And I can't resist it. So if I want to

run and enjoy it, I just can't take the watch with me. So my take is negative just because I think in the book at least. I have a positive feeling about them in general, but they are they're just really, really hard to resist. And even if you give yourself a bit of self talk, you're like, I'm not going to pay attention to it.

## [01:13:51.080]

It ends up being the case that you you fall in line. I never lost more than 10 minutes without looking at my watch and saying, all right, it's time for me to really pick things up a bit.

## [01:14:00.630]

Is that seems it's it's I get what you're saying, but I feel like. The addiction to fitness is probably one of the best addictions you could ever have in terms of the overall quality of life improvement, the actual benefit to it, but you are still dealing with this weirdness, right?

## [01:14:21.330]

You're compelled. You feel you feel helpless and drawn in to the siren song of your watch or your your strap or whatever. Whatever's pulling you in, it's making you do all these extra miles and extra rounds and extra this and but ultimately you're getting a benefit out of it as opposed to like World of Warcraft or something like that.

## [01:14:42.330]

We're just sitting in front of a screen, so.

## [01:14:44.600]

Sure. Yeah. So I totally, totally agree. Sorry, carry on. No, no, I'm just saying you so you revise your position.

## [01:14:55.950]

Do you think that sedentary lifestyle is more dangerous? So the benefit of being addicted to this is at least you're moving and you're exercising and you're doing something healthy with your body?

#### [01:15:07.110]

I think it's it's more nuanced than that. It's that there is for someone who's going from zero to exercising. That's great. That's a great thing.

#### [01:15:16.860]

And there what people in that position and there are people who are working too hard. So I think on balance, these devices, if they're getting people off the couch and inspiring more activity, they're great. But I think for people like me, people like you, people who do exercise a bit. The danger is that you you stop relying on your internal cues and you end up just going by the device. So there are people who'll be at like 4:00 a.m. because they didn't get to the ten thousand steps, you know, that kind of thing.

## [01:15:43.350]

There's nothing inherently wrong with being out at 4:00 a.m., but it just signals to you it's it says something about these devices. It says that what's fueling your drive to exercise is is an obsession that's pretty either unhealthy or not driven by, you know, your body telling you you want to run some more. Like there are days where I'll run in the morning and then by the afternoon I'm just itching to run again. That doesn't happen very often. But that's my body saying, hey, you've got a lot of energy pent up.

## [01:16:07.140]

Why don't you go out and have another run? But there are also people who walk in the morning and then they'll look at their watches and say, oh, it's the afternoon and I've only had five thousand steps, I better go out. That's driven entirely by these external cues that are not about well-being. They don't reward you in a way that's truly, deeply rewarding in the way that exercise, I think, should be when it's when you're doing it right.

## [01:16:28.080]

But still better better to be doing some with the artificial reward that comes from the chip on the watch or the Fitbit or the hoop or whatever it is that tells you you've you've hit some threshold. That's definitely better than not working out at all.

## [01:16:40.680]

But and again, these things, these devices are hijacking these traits that have been positive for us, evolutionarily speaking, in terms of our ability to survive and thrive and work through uncomfortable moments and achieve desired results.

#### [01:16:58.320]

So it hijacks these systems.

## [01:17:01.120]

It's the same the same hijacking. Yeah, it's that that idea that there's a binary if you think about what it is to be a hunter gatherer, it's binary. Like if you're chasing some big animal, there is no gray area. You catch the animal and you you get food and have your group. Your tribe gets food or you don't catch the animal. And so there is a kind of bright line between success and failing to achieve the goal. And there's no there's no really there's no way around that.

## [01:17:28.350]

And and so that we are predisposed to focus on those goals and to make them these big, broad issues, like for me, that four hour mark with the marathon, if I didn't get on the floor, I mean, there should be no difference between a four or one and two and a four or a three fifty nine tiny differences in the scheme of it. It's like a half a percent or quarter of a percent difference in time. But it felt to me like this really important milestone.

## [01:17:50.970]

And I think that's what these devices do, is like that carveout the difference between success and failure and make it really bright in a way that it was historically.

#### [01:18:00.600]

But don't you think some people need that, though, because otherwise of all the good enough. Oh, it's fine. Oh, you're getting out. You're moving. You're fine.

#### [01:18:11.220]

It's like some people need that number, like they need a very clear, hard line in the sand in order to push themselves in order to show what they're actually physically capable of.

#### [01:18:22.460]

Yeah, I think most of us do. I mean, that's that's self-control doing the thing that's hard right now because it's good in the long run. It's one of the age-Old human problems. It's something that I think we're all going to struggle with forever on some dimension, whether it's about screens or about getting out and actually exercising and doing meaningful exercise that, you know, it's easier to sit on couch, on the sofa and watch the TV or use your phone or whatever.

#### [01:18:46.280]

We're all going to have that feeling forever. Some of us have enough intrinsic joy for exercising and working out. We develop we kind of cultivate that over time that it pulls us off the couch. But for a lot of people, the only way they're going to do it is with this is sort of tricking this hijacking of the brain systems. And and that's that's probably OK. One of the things I write about at the end of the book is we know all this stuff makes it hard for us to resist social media.

#### [01:19:14.570]

It makes us hard. It makes it hard for us to resist email, texting, checking the news, all that sort of stuff. We go back to it over and over again. But you could use those same hooks for the good. You could you could use them or apply them in situations like fitness, where they are mostly things that

are good and fitness is one eating healthy, healthy foods, things like education, like you could kind of trick kids into learning stuff, trick even my students.

## [01:19:44.120]

Like if you if you could in some way make education more compelling by creating goals and gave flying and all that sort of stuff, there are worse things. Right, if you can use those tools for the good.

## [01:19:56.240]

That's one good thing about the books app on the iPhone. It'll give you like, oh, you've achieved your goal of reading X amount of pages per day. So there's one good aspect to being addicted, to achieving those goals is the ultimate irony, being addicted to a meditation app. Yeah, this idea that the solution to tech is tech is more tech is this is the important thing for me is that we talk about screens.

## [01:20:28.230]

We say you addicted to screens or are you addicted to tech? And that's obviously just the massive gloss on what's going on. Right. It's not about being addicted to a screen or tech. No one is going to walk around with a blank iPhone screen and just say, I can't get enough of this device. It's a vehicle and it's delivering something to and if it's delivering an experience that you find compelling, that's bad for you, then that's bad if it's delivering an experience that you find compelling, but that ultimately teaches you a new language or helps you connect with a loved one who's far away or whatever, if it's if it's helping you meditate, find wellness, psychological, calm, all of that sort of stuff.

#### [01:21:03.900]

Well, power to you if you're reading on your phone, people always say, oh, I shouldn't be reading your book on Kindle. I'm like, it's totally fine. It's a screen. It's whether you're looking at a page or a screen with writing on it, that's fine. It's it's not a big difference. The issue is not the screen, it's what you're doing on it. So if you're using a screen to to administer meditation or like to lead you in yoga or something that's important to you for your wellness, feel for your psychological well-being, I think that's fine.

#### [01:21:31.720]

We don't need to demonize tech to the point where we say we should you only should do mindfulness activities that involve another human being in your presence or being alone and you can't use screens. I think that's that's, again, another example of throwing the baby out with the bath water. And and it seems silly to me.

## [01:21:47.910]

Do you think that it's possible to develop some sort of a program or a structured discipline on how to correctly incorporate these technologies into your life like so you can give people a framework like this is what you should do. This is what you shouldn't do. This is this is the way to avoid the traps, because a lot of what people are doing, it's not even compelling. I see what you're saying about as long as you're doing something that's compelling, you're getting something good out of it, like an education or you're learning something new.

## [01:22:18.810]

But got a lot of what I look at is nonsense. I just I'll just look and I was thinking this one day I was looking at all these people that were just staring at their phone and scrolling through things like imagine if there was no phone, but there was a drug that made you stare at your hands. And just like mindlessly just stare at your hands like a lot of people are doing with their phones, you know, you might watch a you might be watching some video on nothing like to me, I watch a lot of muscle car videos.

#### [01:22:47.960]

I'm not getting anything out of that, not getting anything out of that. But I'm watching these look up pretty little shiny loess and the sound. Yeah. I'm not getting anything out of it. I might as well be staring at my hand if there was a drug that made people just look down and stare at their hand, we

would be like, oh my God, these people are under a trance.

## [01:23:05.890]

Look how horrible this is. Yeah, there are there are people who are kind of puritanical about it, they like, you know, they would they would say you shouldn't be looking at those muscle cars or you shouldn't be doing whatever it is that you're doing that's not enriching your life. I think that's nonsense. I think we we take too seriously this idea that every minute of our lives needs to be spent in the service of efficiency and maximization and all that crap.

## [01:23:32.730]

You should spend time looking at the cars if they make you happy in the moment. And not every decision needs to be made for long term well-being. I do stuff, you know, I find myself on YouTube for hours at a time. And actually at the end of it, I'm like, what was that? OK, probably not the best use of my time. Is it going to make me an impoverished human being who hasn't reached his goals?

## [01:23:52.560]

No, it's fine. I mean, you want to do that all the time. Your question about a framework, I think is really an excellent one. And it's one that I've thought about a lot. And one of the things I've started to do is to work with some school districts in thinking about education curricula. Could you you know, we teach kids good manners. We teach them math. We teach them a lot of things that are actually not at all practical, but they're not going to need when they leave school.

## [01:24:17.520]

But one thing that's incredibly practical today is teach kids about screens, digital hygiene or whatever you want to call it. Like how do you interact with the screen for the best outcomes? I don't know exactly what that course would look like, but it's something that I think smart people should get together on and figure out. I think it's a very valuable use of kids time. It doesn't have to be like years of education, but just have a conversation with them about this thing.

## [01:24:41.190]

You know, there's this thing that's probably going to try to eat up hours of your life and amounting to twenty years. Let's talk about what the benefits are, what the costs are, the questions to ask yourself. And for me, that framework that that question, like I'm not I could never tell someone, don't look at videos, don't use social media. I would never want to do that. It's not my it's not my sensibility. It's not the way I think about these things.

## [01:25:04.470]

But what I do think is we should all just ask the question, just kind of audit or interrogate your use of these devices. And if you come away from it, you like, this is fine. Like, I waste a bit of time, but I live a fulfilled, healthy, happy life. I have good social connections. I'm not spending tons of money on experiences that I can't afford online. You know, if you if you answer all those questions, you come out with it.

## [01:25:28.040]

You say things make sense for me and I'm okay. Spending a bit of time on these devices, then you're fine. But if like a lot of people you say this is not great by this feels problematic, then that's that's when, you know, something needs to change.

## [01:25:41.910]

I think you're nailing it in terms of getting children to be aware of the problems of these devices now and to get ahead of it with education and to just get it into their mind and maybe have them reinforce it with each other, that there's there's real issues here.

#### [01:26:01.110]

And we weren't even aware of these real issues a decade ago.

[01:26:04.260]

This is why it's not in the curriculum.

## [01:26:06.750]

I've always been frustrated with the fact that we spend so little time educating children, how to think about things, how to think about the way you react to things, why you react to them this way, the way you live your life, the way you treat each other, just communication issues and observation issues and and just just cognitive issues, just the way we view things and problems.

## [01:26:34.350]

And I think we could solve a lot of these issues by educating children just simply on how to think in the the positive aspects of looking at things objectively and honestly. And then this would fall right into place with that.

## [01:26:51.840]

Because if you're being honest about yourself, you're being honest about addictions, you're being honest about the positive and negative aspects of technology.

## [01:27:00.390]

We could at least give children the framework to use that sort of discipline and understanding to not just approach to electronics, but all this future shit that's coming down the line, not the current electronics, but things that we haven't even we haven't even conceived yet, things that we're not aware of that are going to probably be far more immersive than all these current problems we're handling.

#### [01:27:23.960]

Yeah, I couldn't agree more. I mean, I think the education system we use today is an overhang from I don't know how many hundreds or certainly decades, but I'd say hundreds of years of a legacy of just bad, bad education choices. And I think a lot of what kids are taught is just not useful for them. It's not practical. It doesn't help them think. At least if you're going to teach something that's not practical, make it teach it in the service of some bigger aim.

#### [01:27:49.970]

That's really important. You know, it's got to be it's got to have some value to it. You only have kids in the classroom for a certain amount of time. And I think you're right, like the most basic skill is critically assessing yourself and the information in the world around you. And it's a really hard one to learn. And there are a lot of psychological biases built into us that mean that we are fundamentally incapable of doing that unless we're taught how to try to at least begin to overcome those biases.

#### [01:28:17.300]

And then you put us in a world of echo chambers of whether they're political or whether they're just the cultures we happen to be immersed in. It's it's impossible to think about anything objectively and in a kind of canonical, true sense anymore. If you could teach kids how to do that, it would be a different world. It would be a different planet. It would be I think it's an incredibly valuable enterprise. And I think it's something that is worth spending time on and thinking about.

## [01:28:43.520]

And I would like since we're taking up a quarter of our waking hours by staring at these little devices, I think that should be part of that education for sure.

#### [01:28:52.970]

Yeah, I mean, I think it would apply to every aspect of a kid's life. It's just such a strange thing. You have to learn that on your own. Out of all the things that we teach children, which are important, you know, history and mathematics and all the other things we teach them, how do we not teach them that critical thinking skills and how to how to look at yourself accurately and the benefit of it, even when it's painful and uncomfortable, but that you you you can actually learn and grow through that and to learn to accept those painful, uncomfortable truths, because there's this great benefit in that.

## [01:29:27.790]

Yeah, some of the research I've done has looked at this idea of the benefit of hardship, basically that grappling with difficult things, practicing with the practice set that you're doing is harder rather than easier. These are all the kind of go against our natural tendencies. We like to do things that are a little bit easier. We as a species like not to expend effort that we don't have to expend in general. But there are tremendous benefits that come from doing that with grappling with with complexity, with difficulty of actually being really honest about who we are.

## [01:30:01.090]

And it all goes against the grain. So the only way you're ever going to get kids to be self aware and to to think about these things is by inculcating that when they're pretty young, by teaching them that when they're the younger, the better. Really, because as you get older, the gloss of culture and society and all that kind of stuff that's around us that makes it hard for us to engage in that way starts to take over.

## [01:30:22.540]

How long did it take you to write this book? It took about 15 months, I spent six months doing a lot of the research, I interviewed about 50 or 60 people for it, and then about nine months on and off of writing, and then there was an editing phase back and forth with the editor.

## [01:30:40.850]

Now that it's done and you you go back and you look at it and you you think about the time that's passed since you released it, is there anything that you would have revised? Is there anything that you wish you had added? Yeah, a lot of it, I think, stands a lot of the stuff is still true, it holds holds the same sway with me. I still endorse it. I really, really struggled to get behind the curtain of the big tech companies.

## [01:31:12.800]

And I wanted to write about the business side of what these companies were doing and tried really hard, but didn't get that far in delving with these companies. I couldn't get past a lot of the there are some barriers and I knew what I was writing about because I wanted to be honest about it and I couldn't get a lot of the information that I wish I had been able to get. Now, when I speak about it, I have a lot of that information.

#### [01:31:35.960]

I would have folded it into the book. A lot of it's not in there. I mean, I still talk about what these companies are doing, but I would like to have known more about the business side and a lot of that was hidden from me. So that's a big part of it is not there's not much else, really. I'm I have a PhD in psychology, and so I'm interested in what makes people tick and how they think.

## [01:31:56.300]

And so the middle big chunk of the book is these these different hooks that are embedded in these platforms that make it hard for us to resist them. And that hasn't changed. That's as true as ever. And so I don't feel that I would change anything about that part of the book.

## [01:32:09.890]

What about the business practices of these companies? Was interesting to you that they're aware of how addictive all these things are? Yeah, I one of the practices I found fascinating was the extent to which these companies use massive data sets to make their decisions and huge amounts of data. So there are two ways to make smart decisions when you're designing a product. The one way is you have you speak to smart people who know a lot about humans and what makes them tick their motivations.

#### [01:32:42.380]

And then you you take that information and you embedded in the platform that you're designing. But that's really hit and miss. That's how a lot of video game development works. And again, speaking to these video game experts who have designed games that have made tons of money, who have been

very successful, a lot of them will say, look, I created a lot of games, but, you know, a lot of them missed the mark, had a couple that were great successes.

## [01:33:04.730]

But for every two that were successful, there were 10 that weren't. So there's a lot of kind of trial and error. What the big tech companies do in large part is they avoid the trial and error by being completely agnostic about the theory of what's going to drive us. They don't need to know about that. All they need to do is run a series of kind of trials by combat. So if you're playing again, World of Warcraft fortnight, what I do is I throw to two different versions of a particular mission.

## [01:33:28.770]

Up and half the players will play one version. The other half will play the other version. That's one of them is by it is through a forest. The other one's identical. You have to do the same thing, but you're going by the ocean. The question is, what effect does that have? And you might discover people will play the mission 10 minutes longer if they're by the ocean. So then you say, OK, we're going to privilege ocean missions.

## [01:33:47.780]

So now we have two versions of the ocean mission. This is round two of the trial. You can either rescue an artifact or you can rescue a person. And people, it turns out, are more interested in rescuing a person. So they'll play for an extra 10 minutes. If you do, this is kind of trial by combat, round after round after round. You're involving a weaponized version of the platform. So you keep selecting the version that's hardest for us to resist.

## [01:34:12.140]

And if you do that en masse, it ends up shaping the user experience. You end up having features on the platform that are designed to be hard for us to escape from. If you're creating a game, you release the version that's most difficult for us to resist.

## [01:34:26.390]

Now, of course, forever people who are writing movies or books or any form of entertainment, we're trying to do this. They just we're much less good at it. What the tech companies do is they they make this kind of a sure thing by having access to billions and billions of data points and getting real time, very rapid feedback from us.

## [01:34:45.590]

Isn't it also to compare it to books and movies? It's not a fair comparison because those things end. Yes, that's really where the problem lies, right? Is that a book or a movie is not going to make you eat pizza three times a day and gain 40 pounds over five weeks because you're trapped in your house doing nothing but enjoying this book or movie constantly because there is no end to it.

#### [01:35:12.800]

Like there's something. Like, I completely understand why they would do that. I mean, it makes sense you're engineering a game. You would want to make this game the most compelling, the most entertaining, the most engaging possible.

## [01:35:32.780]

But do you think that these companies have a social responsibility for recognizing the fact that they are massively addictive?

#### [01:35:42.230]

Do they have an ethical or social responsibility? Absolutely. Absolutely. I think they do. I think I think the biggest problem, the most broken part of all of this is, is the incentive model. So all of these platforms pretty much rely on I'm thinking about Google, Facebook, Instagram, Twitter. These platforms require your eyeballs for as many minutes of the day as possible. And every minute that you're not spending on that device, you're spending minutes doing other things.

## [01:36:12.290]

That is a loss. They conceive of that as a loss. And it is because it means that less capable of attracting advertising dollars and that drives the whole model. That is a broken model. It's a terrible model because of privileges extracting minutes of time over delivering wellbeing. Now, historically, products were largely if I made a great product like when you played, I think you said it was guite right when you played guite when I played Doom, when I played Super Mario as a younger kid than that when Nintendo came out, that was just an incredible product.

## [01:36:45.680]

I think that was just, you know, that was designed to deliver a phenomenal eight plus top class experience. And when you speak to the videogame developers, there's a pure purity to it. The creator of Mario and the creator of Tetris and all of these games, they all talk about the kind of love that went into creating these games that's gone. This is not about making us happier, giving us a good experience and experience that we're willing to part with our money for.

## [01:37:12.200]

It's all one big kind of heist. They're trying to trick us. They're trying to basically get us to part with our time and therefore with our money. And yes, there's an ethical responsibility. I mean, if you if you see it as an industrial company and this company is making billions of dollars, but there are major externalities. So negatives that come with that, let's say the spewing crap into the waterways and into the air, that's something that for the last twenty five, 30 years or so, the government has said, you know, that's not OK, we're going to penalize you for that.

## [01:37:42.050]

I'm not suggesting I do exactly the same thing with tech companies, but there is an externality. These companies are making billions of dollars. The externality is not that they're poisoning the waterways in the air, but they're changing how we live our lives. And I'd argue in many ways for the worse.

## [01:37:55.790]

Do you think a warning label would have the same sort of effect that a warning label has on cigarettes? But it doesn't really matter when they put those cancer labels on cigarettes. People who smoke cigarettes already know it causes cancer. I don't think it stops anything or helps them at all. Warning labels are toothless. They only work if you don't know if they're educating you and everyone knows, everyone knows about cigarettes. I mean, fighting, fighting tobacco addiction is really difficult with both with smokers and with young people who are thinking about smoking.

#### [01:38:27.150]

It's going to be the same with these devices. I think no one needs it. Maybe maybe there's slightly more room to educate people about these things with respect to screen time and what we're doing on screens. But most of us know this stuff and the warning labels don't do much. I agree. So what could they do?

#### [01:38:48.030]

You're not going to have them hamstring themselves and make a game that's less addictive, like, if you like, let's propose they reverse engineer what they've done and do it the opposite way, like it's going towards the ocean, makes people play more. So we're going to go to the woods. Rescuing a person makes you play more so you can you will rescue a gem, you know, like they're going to choose the least addictive out of all these paths.

#### [01:39:14.820]

Then you're going to be noncompetitive with the people that are engineering games that are going to choose the most addictive. So then it's almost like everyone's agreeing to make the shittiest game possible because it's the only way people can not be addicted.

[01:39:29.490]

It's true.

## [01:39:30.150]

I mean, there's no way in the arms race for our attention and our dollars and all that sort of stuff. No one is going to buy into this idea. We should make a shittier version of the product. I think that, as I said, the model is broken. If the model is about attention and about picking the version of the game, that's going to extract the most time, that's that's problematic to begin. It would be better if they were weighted to basically create a model that prizes consumer welfare, which then translates into people wanting to part with their dollars.

## [01:40:05.010]

I don't know. That's obviously difficult to do in practice. But, you know, a lot of industries work that way. It just so happens that the model we chose for in particular social media, this is not as true for games, but for social media for sure. We are the product and our eyeballs are the product and the consumer is the big industry of companies that are buying ads on those platforms. So, you know, these are the reason that freeze because they need our eyeballs.

## [01:40:31.260]

But you could imagine an alternate universe where where you had to pay a small annual fee to use these products, but there was no advertising. And so the money came from revenue, from the billions of dollars of revenue that you got from from individual users who are paying to use the platform. And that's that's a universe that I think leads to better outcomes for everyone and designing features based on people enjoying them, getting value from them, rather than features designed to hook us.

## [01:40:57.270]

But I mean, I I've been thinking about this for it's now six or seven years and I and I'm just as exasperated. And that's why I think a lot of the focus now has to be on the individual consumer. If you're a consumer who needs help with this, you're spending too much time, you feel bad about it. And let's talk about ways to deal with it. But working at the level of the of the tech companies is is really, really difficult.

## [01:41:21.240]

I like how honest you're being about it because it is you can be exact. There's no way you're going to say, oh, I've found the solution, the thing's too big.

#### [01:41:34.440]

So when you're a guy who's studied this for so long, he's spending so much time and you writing this book about it, you're constantly immersed in these ideas if you're not finding a solution. Like, if you're not saying this is what the tech companies have to do, this is what we have to do as a society. This is the path forward as a healthy culture.

#### [01:41:53.540]

No one is going to be able to figure it out if someone like you who's spending so much time looking at it, when you're looking at the future and if you just take away what you hope people do and what you would like people to do to be healthier and less addicted to these devices in these games and these social media platforms, what do you think is going to happen? Take away what you want and what do you have to be really honest.

#### [01:42:18.740]

What do you think is happening with us? I think we're making inroads in that.

#### [01:42:22.700]

We're chipping away at the problem in little ways. Like I can tell you a thousand small ways that we're fixing the problem or making it better. But none of them is what you're what you and everyone else is looking for, which is what is the magic solution here? Like, what is the one big thing we can do that would reverse this whole thing that I don't see happening? I'm pretty pessimistic about it. I think the big changes I can't predict what the government's ultimately going to do around the world that might they may be more government intervention.

## [01:42:48.860]

I don't know whether that's a good thing or a bad thing ultimately depends on the nature of it. But I do think consumers are getting more savvy. So one of the really interesting developments in the last decade or so is that when I first started thinking about this, parents would come to me and say, this is a disaster. I can't get my kids off devices. But there's been this weird shift where now kids are coming to me and saying, my parents can't get off their devices.

## [01:43:13.040]

And it's starting to affect all the people. And the younger people seem to have worked out ways of managing their lives more effectively than older adults can. So I'm kind of hopeful that this generation, maybe with the help of a curriculum that's more thoughtful about this, which I know a lot of private schools are starting to teach this stuff, that that there will be the generation now of kids who have grown up around these devices. Give them 10, 15, 20, 30, 40 years.

## [01:43:39.290]

They're going to be the leaders of everything, basically industry, the leaders in a political sense. They will be savvy about this in a way that we are not. We were caught in this kind of no man's land. This thing was visited upon us. You and I are part of a generation that straddle these two worlds. People who are much older than us are still coming to terms with the situation. But, you know, there's a group of kids now who are probably 12, 13, 14, 15, who have never known anything different.

## [01:44:08.180]

And they're going to get older and older and older having learned ways to cope. It'll be the kind of native world in which they grew up. I am hopeful that they will be more mindful about this stuff. They will, I don't know, maybe develop a kind of soft spot for the way we used to do things. If we can teach them that and they'll be more mindful about it in a way that I think the generations that have this visited upon them later on in life have struggled to be gone.

## [01:44:34.190]

I hope you're right. And I don't think you are, though.

## [01:44:38.790]

I I'm a I'm a romantic about this stuff. You know, I try. Well, I appreciate that. I love optimist's. I, I subscribe to the Elon Musk notion. There's a great quote that he said, human beings are the biological bootloader for A.I. And I'm when I said that, I think that one day we're going to be obsolete. That's my real concern. My real concern is that what we are is some sort of an electronic butterfly that's building a cocoon where a caterpillar, we're building a cocoon and we don't even know what we're doing.

#### [01:45:13.550]

We're just immersed in consumerism and buying the latest greatest laptop and iPhone and all these different people we don't recognize is that what we're doing is contributing to this pattern of technological innovation that will ultimately make us obsolete or at least make us become one with it so that we avoid becoming obsolete.

#### [01:45:36.270]

Yeah, I mean, the ultimate problem for us is that we we prize is comfort, wellbeing, happiness over all else. And so give us something that will help us do that. And we will we'll be like mindless animals that don't actually have a brain and we'll keep moving in that direction. And there are certain drives that will keep pushing us in that direction. And if you can meet them with screens and we'll say, you know, that's fine, I'll sell my soul, I'll sell the species and sell the long term, you know, the long term survival of humanity for that.

#### [01:46:07.200]

And that's that's where we are. I mean, what you said I thought was really interesting about the idea that maybe we're all just not you didn't say this, but I was thinking maybe we are all staring. There's no fun. But it is a drug that we've all taken. It's in the water and we're actually just staring at our hands for four to five or six hours a day. I basically believe it. I mean, it's as absurd as what's actually going on

in the world right now.

## [01:46:28.020]

It's not much different in terms of the actual impact that it has. Well, Sterry, your hand might actually be better because you just stared at your hand. You wouldn't have all the social anxiety that particularly kids have. Jonathan Hate's book. The coddling of the American Mind paints a particularly disturbing portrait of young girls and the pressure that young girls deal with because of social media and online bullying. And then comparison compares comparison to each other and then the use of filters and all these different things that that paint this very unrealistic depiction of what a person looks like.

#### [01:47:08.580]

And that's what everyone aspires to.

## [01:47:10.740]

And how many girls are self harming, how many girls are committing suicide, and that this massive uptick in depression and and medication and all these different things that show this psychological damaging aspect or psychologically damaging aspect of these devices and social media.

## [01:47:30.480]

Yeah, so I know I know John well. He's also at NYU where I teach and I know his work. We talk quite a lot about these issues. I think that people always what's the biggest problem with these screens? And I think for me, it is this experience for teenage girls in particular of spending colossal amounts of time looking at, as you say, Instagram filters, influences, being bullied online, the effect it's having on depression, rates, anxiety and even rising suicide.

## [01:47:58.710]

I know you. I think you have a daughter, is that right? I have three daughters.

#### [01:48:04.920]

You have three daughters. Yeah. So I have a I have one daughter and a son. They're very young still. But I think a lot about about that these issues and how I know what I want to do to try to encourage them not to not to be in this position as they grow up. And that, to me is the biggest concern. I think John is right to focus on those issues.

#### [01:48:22.920]

I think getting them involved in physical activities that don't involve cell phones is important to like. One of my daughters was really into gymnastics and the other one is into basketball. And to get them into things that are physical that they have to do, like you have to you have to do a there's a thing that you have to do physically and then you get.

#### [01:48:43.750]

Yeah, yeah. I think I think physical activity is huge, you know, just exposing them to the things that are so hard to be exposed to naturally today. So they'll end up finding screens. But what they won't end up finding is hike's team sports, all that sort of stuff. I think I agree with you. That's that's it doesn't have to be a team sport. But just using your body physically, I take my kids, as I said, they're really young, but I take them to this isn't a little poque what's quite a big park.

#### [01:49:12.450]

It's like a national park around by the water and said, I see the ocean and I see a little beach and I see trees and they climb on logs and all that stuff. The stuff that I used to do as a kid that was very natural in the eighties, that's just not available in the same way to AM now. And that's that's very purposeful. I mean, I think you've got to you've got to be a bit retro in the kinds of things you expose people to when they're young.

#### [01:49:36.060]

Well, that's what's weird about raising kids today, is that there's not a bunch of past generations that

can tell you how to train your kids. In a world of immersive technology, you're really kind of on your own. There's like I grew up without the Internet. The Internet came around when I was an adult and I sort of learned to cope with it, but I at least had the foundation of growing and getting through high school and all the formative years without it.

## [01:50:04.140]

And kids don't have that today. And parents don't have the experience of having their parents tell them, well, this is where I made mistakes and this is where you've got to be careful with these devices.

## [01:50:16.760]

That doesn't really that there's no precedent that's been set.

## [01:50:20.940]

There isn't the first generation of parents to have to deal with this. And that makes it especially tricky. You know, there's no common wisdom. Older adults certainly have no idea how to counsel us on this. And I think that does make it extremely tricky. We're all flying by the seat of our pants. Which is why I think focusing on this issue is really important. So there are there are areas of this, as we've said, that you can't really touch like I think tech companies are going to keep making billions of dollars.

## [01:50:45.570]

They're going to continue to arms race. That's not going to change. They're all going to push as hard as possible to extract every minute. But the other side of this is the I think the much more human side, which is how do you help your kids stay out of trouble on screens? How do you prevent bullying? How do you prevent them from from being overwhelmed by the kinds of anxieties that are much more common on screens than they were in the pre screen era?

## [01:51:08.760]

And that stuff, I think, is where we we people who write about this and think about it can make real inroads. And that seems really important. I think there's no more important enterprise around this subject than learning how to be parents and learning how to help kids grow up in this world that's become really full of this kind of new minefield that didn't exist before.

#### [01:51:29.790]

What has changed for you from studying this and writing this book? What has changed with the way you interface with technology? And what what steps have you gone through to alleviate some of these problems in your own life?

#### [01:51:45.840]

The biggest thing for me is is really just very basic analog interventions. So what I mean by that is physical distance and time are the biggest things. So I track my time and how much I use my screen and I make sure that I have certain parts of the day where I religiously and consistently don't have a phone nearby. If I have a phone within reach, I'm going to be thinking about it all the time. There's no way around that and I'll probably reach for it.

## [01:52:13.650]

So I did that experiment where you try to sort of get a sense of how much time during the day can you reach your phone without having to move your feet? The answer for me was pretty much the whole day I was I was by my bedside. It was wherever I was, it was there. So one of the things I've done is we have a little box near our kitchen where we have our dining table. We put our phones there when we're when we're having dinner.

#### [01:52:36.900]

So there are no phones around physically when we're having dinner. That's true. Any kind of meals where possible. I try to keep my phone out of the bedroom. So I have an alarm. I have a little watch that I wear that has a vibrating alarm on it. It doesn't really have much of a screen on it. It just vibrates when it's time for me to wake up. So when I'm in bed, I have absolutely no screens around.

## [01:52:59.490]

And that's that's been really helpful because I think the worst thing is when you wake up in the night, you roll over, you pick up your phone and it's like instant jetlag. You're basically signaling to your brain that it's daytime and that's that's incredibly damaging. So those are the two biggest things. I also have have done a number of things that defang the device itself. So if you remove all the notifications, except in absolutely most critical, urgent ones, there are a few of those that are important to some people.

## [01:53:27.000]

That's that's been very helpful for me. So I've done that. I the other thing I do is periodically, you know, how you have that script like your go on your phone and you'll be like it's email, Instagram, Twitter, Facebook, email, and you keep going round and round in this kind of lujah. One way to disrupt that is every same month have a reminder, go off in a calendar that says it's time to switch my apps around.

## [01:53:49.980]

My eye comes around and I just I screw the whole thing up, like I'll put them in different places, make it hard to find them. And so what that does is it short circuits this tendency to fall into that loop, because every month or so I'm changing the way my phone looks, which most people hate. But if what you're trying to do is short circuit the process of getting into that loop, it's actually very effective. One other thing that a lot of people talk about is there's a black and white mode on your screen, your phone.

## [01:54:15.990]

It's called greyscale, I think greyscale mode and the whole experience. It's still a utility. Like the best things about these phones, the maps, all the stuff that you get from the utilities, you still have that. But the the experiences that rely on like us of color and all that, they are different.

#### [01:54:34.920]

And that tends to lead people to spend less time on their screens as well.

#### [01:54:38.520]

Do you use that? I have I I'm colorblind. Yeah, I I'm not not profoundly like I can see some color, but my first book was called Drunk Tank Pink, which was about this color pink that they used to paint inside jail cells to calm prisoners down. And that was that was one of the anecdotes in the book. So I called the book Drunk Tank Pink. And people always used to say to me, does that affect work on you?

#### [01:55:04.190]

And I mean, I really I don't know, because I can't I can't really see these colors. So I don't have the same response. Like, I confuse a lot of the colors. And so the the color feedback, that would be really like intense for you on a phone. It's mostly lost on me. I can't tell the difference between reds, browns, greens, oranges. They look basically like fall for me is confusing. Everything is just gray, really.

# [01:55:28.060]

And it's weird.

#### [01:55:28.900]

But that's funny because you're seeing gray like you recognize gray as a color. How old were you when you realized you were colorblind? So I have this I have a sense when you're very young, you know, the picture books, the kids look at where there are colors on the picture books, and then you talk about the colors like there's a bright red, you'll see a cherry and it's red and you'll see grass and it's green and you'll see trees with brown bark on them and, you know, the blue sky.

#### [01:55:55.310]

I learned very quickly what colors things were supposed to be. And so for the first few years of my life, I wasn't seeing those colors. But I knew what colors I was supposed to be seeing. And so it looked like I was learning my colors.

## [01:56:05.690]

So what do you what do you see so well? So later on, once colors became more subtle, when I was about eight, nine or 10, it started to look like something was wrong because I get colors wrong and I was old enough to know. And so they took me to an optometrist and he administered this test. I'm sure you've seen these before. They called the Ishihara tests and you see all these dots and you're supposed to see a number if you can see normal color.

#### [01:56:33.740]

But they're very clever tests because a lot of people say they're colorblind when they aren't like if you want to get out of military service or something like that or you don't want to be a fighter pilot, you can say, I don't want to do these things. I'm colorblind. These tests are brilliant because if you are colorblind, you will see a number that people who have proper vision cannot see. And so you can't just say, I can't see anything.

## [01:56:55.460]

You can't you can't, like, fool the test taker, the test administrator. So what happened was I did this test. There it is. I can't see anything that actually just looks like dots to me, really.

## [01:57:05.810]

But yeah, some of them, I could see a number. But hold on a second. If that's the case, wouldn't it be that it would be easy to fake? Because I could say no if you get.

## [01:57:17.720]

So the problem is they have to be the exact right colors. So they're in these booklets. You can do it on screens if you pull one up. That's that's the contrast. And the colors are correct. I will see a number that you won't see.

## [01:57:30.110]

OK, so we're looking at one here like this is this to us looks just like, oh, it's twelve. You see that? And I can't. Wait a minute, let me see that again, that looks like a three to me, DC three. Yeah, I do see it through. I see an eight. There you go. There you go. So you see and I see three, if I said to you I can't see a number there, I would say to me, you're faking.

#### [01:57:58.670]

But what happened when I did the test and I saw these numbers, I was like, I guess I'm not colorblind. And I got to the end of it. And I was like, you've seen all the numbers the color blind people see. Like when you would have seen a 12, I'll see an 18, and I'll be confident that I'm getting the right answer.

#### [01:58:14.420]

So it's a very clever test. Is this an inherited trait?

#### [01:58:19.110]

Yeah, my grandfather on my mom's side was. And what happens is he passes it down to his daughter, who carries this trait. But most women don't actually express it. But then 50 percent of her sons, if she has sons, will be colorblind. My brother is not colorblind and I am colorblind. So I have a daughter. If she has sons 50, I have a 50 percent chance. Wow.

#### [01:58:41.690]

So do you let your wife dress you? Yeah, I probably do that anyway, because you wouldn't match things correctly, right? Wouldn't that be the idea or you would do it by sheild. Yeah, I would I'm just for colors, I mean, I've made some horrific decisions, actually, when I started teaching, when I first started teaching at NYU, this is about just over a decade ago. I was a grad student. For years, I had no money and I wanted to get some cheap business shirts.

#### [01:59:12.800]

So I went I went to the store and I have this bargain bin of shirts. And there was just this huge array of

white shirts. So I was like, it was like ten for one hundred bucks or something. So I got ten of them, like have full wardrobe of white shirts. Thought that that's all I needed. Turns out they were pink.

[01:59:28.640]

I had no idea. So I'd show up to class every day, every single day in a pink shirt thinking was this like kind of basic nondescript white shirt. And at the end of the semester, the comments like, was this an experiment? Why did the professor come in pink every time? So the only thing they focused on after a semester of teaching was what's going on with the thing. So so, yes, it's important that I let my wife dress me.

[01:59:50.720]

That's that's hilarious.

[01:59:51.950]

It's also such a strange statement. Like, we have a weird thing with pink. I don't understand why pink is such a polarizing color with men. I've never had it explained to me correctly that this is one color that represents girls. There's no one color that represents me, maybe blue, but girls wear blue all the time and no one thinks anything of it. But I agree, I agree, I did some research on just to try to work out what the deal was between this year with the blue versus pink idea and the fact these colors are associated with different genders.

[02:00:28.940]

And until about 50 years ago, pink was associated with youth, with young people, with being a teenager or a young person that had no gender association. Yeah. What happened? I mean, I don't know. No one seems to know what the original point was, that that split happened where it became really a color that was marked as being for girls. But it's true, though, that it is the only color that has that strong or gender association.

[02:00:55.310]

And it's a very strong, very strong, very strange.

[02:00:58.010]

What is it like for you when you looked at you, did you see that Internet meme where it was a dress and people couldn't figure out whether it was, what was it like, gold and black or blue and like what were the colors? Do you remember what they were supposed to be? It was blue.

[02:01:14.300]

I think it was blue and black and gold and white, something like that, maybe.

[02:01:18.740]

What did you see? That worked for me. I did see one of them and I was very firm about it and angry with people that disagreed, which I think was just another way to polarize us.

[02:01:31.770]

I, I think I saw I saw that the darker one, whatever the darker one was, I didn't see why I couldn't see that. I just saw I think it was black and maybe gold. There are a few of these that have come through now. They do work on me because that's really about tone. That's not as much about who the specific color. So I'm good with tone. I'm very good at distinguishing tone. But when you give me a color, so everything I wear is pretty much either blue, black, white or gray because the only color I can see very well is blue.

[02:02:01.590]

The way I see blue is pretty similar to how you see it. The way I see most other colors is kind of washed out and I don't have a good sense of it.

[02:02:10.650]

Oh, so some people there's varying degrees of color blindness. It's not as simple as you're color blind,

like you just color blurry. Yeah, it's basically like that. So there are different kinds of colorblindness that that it's basically there's a problem with the cones in your eye which pick up color. And there are three cones. There's a one that's sensitive to red, one that sensitive the green and one that's sensitive to blue and depending on which one's malfunctioning.

#### [02:02:39.370]

And for me, it's I think it's the green ones. You get a different kind of colorblindness. There are different forms of it. So some people really struggle with blue and yellow. I can see those two and distinguish between them pretty perfectly. My big issue is much more common. The most common kind of colorblindness is red, green. I have red green, which also means browns and oranges and some other similar colors. And somehow blue kind of escaped for me.

## [02:03:04.570]

So my ability to see blue is is untouched mostly. And that's why I like to wear blue, because I can see it also. It's my favorite color. It's the only one that's like bright for me.

## [02:03:13.810]

So for you, the the allure of screens must be at least slightly lessened than the average person who concentrates on the latest greatest olad screen with the massive amounts of pixels and beautiful clarity in high definition. Yeah.

## [02:03:31.520]

So I my first job was I worked at Sony in a retail store that sold Sony equipment and I struggled to sell TVs when they were kind of the best, most expensive. I could tell people stuff, but I couldn't see it myself. It was kind of wasted on me. I could see the definition, but I could never get the sense of the color. And I started to this is in the early 20s. They were really pushing this idea of like realistic, rich, bright, vibrant colors, totally lost on me.

## [02:03:59.080]

So when you watch a movie like Avatar, you don't you just see this sort of grey mass. Avatars, it's a little bit like those those picture books, when you're a kid with the colors are so bright and and obvious that I got a good sense of it. Maybe it's still washed out compared to what you see, but takes anything subtle, like look at a real a real world landscape. If you probably you'll see trees in the fall and you'll see this wash of colors, you'll get some oranges and reds and greens and browns.

## [02:04:28.850]

People describe it to me is like the most incredible experience to see that if you're in the right part of the country, I've never I've never experienced that. I just I've been taught that leaves a green. And then at some point they fall off the tree. So I know that.

#### [02:04:43.340]

But I really do struggle to see that, that the variations, the one color I can usually see is yellow because it's lighter. But if the intensity of the hue is the same, I just it's lost on me.

#### [02:04:53.270]

Is there a treatment for that or some sort of proposed treatment?

#### [02:04:57.860]

There are these incredible glasses. You could check them out. I called I think they called an Croma in Romack and they help some people, but not everyone. But there are videos online of people who are colorblind getting and chromo glasses as a gift. They're expensive. They're a few hundred bucks and you put them on and it's supposed to make it so that you're seeing the world through the eyes of someone who isn't colorblind. So you get these videos online now of people getting their glasses for the first time, like a dad will get the gift from his son or daughter and he'll put them on and he will break down in tears saying, right now I'm seeing it right now doing it.

[02:05:39.320]

And you go, I mean, it's it's emotional. Like it's like being having this. Faculty suddenly visited upon you later, very late on in life, so I bought I bought one of these I actually got in touch with one of the companies and I asked them if they would send me a trial pair didn't have any effect on me. Wherever I was. I was pissed. I was pissed. Yeah.

#### [02:06:02.270]

And but there's nothing medically they can do. There's nothing. Gene therapy. It's nothing nuts, maybe with stem cells at some point they'll be able to do something with it because it's it's really just the the structure, the anatomy, the physiology. I don't know the exact terms, but the codes themselves are just malfunctioning. So there's no surgery. There's nothing you know, it's just it's a really kind of fundamental deficiency in the way you see things. And this is 10 percent of men.

#### [02:06:29.830]

It's not it's not a tiny part of the population, 10 percent, really.

#### [02:06:33.850]

I had no idea. It's one percent of women and 10 percent of men. Wow. So if there is any benefit, it would be that you're not as compelled to look at screens. That's right.

## [02:06:45.700]

That is that is one of the one of the upsides. And I really do feel that. I mean, I don't I don't enjoy the experience of looking at screens the way I think a lot of people do.

#### [02:06:55.180]

I just don't I don't get much from it. I get much more from the experience, but not as much from the screen itself.

## [02:07:02.140]

So I ask about the colorblind mode in video games. Is that something that's helpful to you? Like, can you see do you see what we see or are you seeing, like blood that would appear red here then? Yeah.

#### [02:07:12.550]

So what happens when I see a colorblind mode, when there's an attempt to sort of improve or fix something? For me, it makes two colors that I would see as the same appear different. And then what I do is a big part of color perception is top down, which means that if you know stuff about what you're supposed to be seeing, your brain will see that thing. So if I see what is supposed to be blood, I'll see it as red.

#### [02:07:33.940]

Even if to you you can say, hey, that's green, that's brown, I'll just assume it's red. So that's that helps people like me. Like, I don't walk around constantly saying, I don't know what color that is. I don't know what color that is. I don't know what color that is. I may not be seeing it the way it actually is, but my brain thinks that we're looking at the screen right now of this video games, this doom.

#### [02:07:55.840]

Yeah, I just picked Doom because you guys are talking about earlier and is the the new version of Doom and it's a color blind version of it.

#### [02:08:02.590]

So do you looks the same to me. It basically looks and yeah, it doesn't look weird. OK, so this is just how you see everything. This is sort of like a yellowish you. Yeah, so they usually to make something more more clear for a person who's colourblind, you either make it more yellow or you really make it more red, Red's usually the best way to do it. So if I if I look through red cellophane, like I took transparent red from those those old 3D glasses, when I look through the red, what that does is it eliminates any green light.

[02:08:36.240]

And so it means that I'm seeing the world the way a person with proper color vision would see the world through that same piece of red. So if you and I look through red cellophane, we see the world the same way. And actually, if you if you look through green cellophane, you will see the whole world is green. It's not that different from how I see the world. It's got a green wash over it, basically.

## [02:08:56.480]

Wow. Well, I'm sorry to hear that, man. Thanks. I've never known anything else. I'm good. Well, you seem very happy. But listen, thank you for being here. Thanks for thanks for writing the book. I really, really enjoyed it, although it's very sobering. And and again, it seems like at the end of it, it seems like there's no real solution. But I think that taking personal steps to mitigate some of the issues that we talked about today is what really everyone needs to do.

## [02:09:29.920]

Yeah, I think that's right.

## [02:09:31.150]

Yeah. Well, thanks very much for having me. I appreciate it.

#### [02:09:33.610]

My pleasure. Thanks, man. Take care. Bye. You too. Thank you, friends, for tuning into the show and thank you to our sponsors. Thank you. To Buffalo Trace and their fantastic whiskey, distilled aged and bottled by Buffalo Trace Distillery 90 proof, Franklin County, Kentucky, Buffalo Trace, American family owned and independent were also brought to you by the mother fucking cat. Shapp, download the cash app from the App Store or the Google Play store today, and when you do download the cash app, make sure you enter the referral code.

## [02:10:13.360]

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#### [02:10:45.160]

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#### [02:11:20.080]

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