

AT Banter Podcast - Episode 262 Dr. Anna Lembke

Sat, 11/13 12:44PM 1:11:42

SUMMARY KEYWORDS

addiction, dopamine, people, addicted, pain, opioids, addictive, work, book, drug, brain, problem, patients, true, world, behavior, game, social media, pleasure, rat

SPEAKERS

Rob Mineault, Steve Barclay, Lis Malone, Dr Anna Lembke, Ryan Fleury

R Rob Mineault 00:44
Hey and welcome to another episode of AT Banter,

S Steve Barclay 00:49
Banter, banter.

R Rob Mineault 00:51
This is of course the podcast where we talk with advocates and members of the disability community to educate and inspire better conversation about disability. My name is Rob Mineault or actually today it's Robe

S Steve Barclay 01:08
Without the accent to you it is "Robe Mineault"

R Rob Mineault 01:11
Well that works here and joining me today Mr. Ryan Fleury

R Ryan Fleury 01:19
What? You're not going ladies first? What kind of gentlemen are you?

L Lis Malone 01:22
Oh, that is ladies first.

R Rob Mineault 01:23
Ohhhh! that's right.

R Ryan Fleury 01:27
Regan Fleury

R Rob Mineault 01:32
I'm leaving the best for last

R Ryan Fleury 01:34
Thata boy

R Rob Mineault 01:36
Joining us as well. Mr. Steve Barclay.

S Steve Barclay 01:40
That's your crab nevits backwards.

R Rob Mineault 01:43
Really?

R Ryan Fleury 01:44
He's practice that probably for years.

R Rob Mineault 01:48
That's amazing. I have no idea what my name backwards would be. I have to do that this weekend. And helping us out yet again today. The best for last .. Lis Malone.

L Lis Malone 02:01
Or, you know, sil enolam

R Rob Mineault 02:05
You did that you're able to get fast. See that will take me hours to figure it mine out.

L Lis Malone 02:10
It's sort of like a mini IQ test

S Steve Barclay 02:12
I already failed

R Rob Mineault 02:33
Hey, we're doing a podcast. How are you guys doing? How's everybody? How is everybody's dopamine levels?

S Steve Barclay 02:43
Righty. Well, we're recording a podcast so you know, normal.

R Rob Mineault 02:51
Yes, well, I have to say it's nice to be back. Of course. We had a little bit of a break. I was off for a few weeks. Doing some doing some surgery. Well, I wasn't doing surgery. But surgery on me. So that was fun.

S Steve Barclay 03:09
Poor cat

R Rob Mineault 03:19
Yeah, so as as many of our super fans I'm sure may have noticed. We've been we've been off for a few weeks. So that was all my fault. I'll take all the blame for that. Because recovering from a surgery sitting in a chair, talking to you people not high on the list. No offense. But yeah, just need some time to lay on the couch and moan. So which would not make for an interesting podcast?

S Steve Barclay 03:46
Well, you know, some people might be into it. But yeah, it's not not a core audience.

R Rob Mineault 03:52
True. Damn. Yeah, that's true.

R Ryan Fleury 03:54
Well, we don't know that. Do we have an audience?

S Steve Barclay 03:56
We don't know that either.

R Ryan Fleury 04:02
Yes, we do. We love them all.

R Rob Mineault 04:04
We do. Absolutely. 100%. Well, hey, speaking of podcast, Hey, Ryan.

R Ryan Fleury 04:10
Rob, what?

R Rob Mineault 04:12
What are we up to today?

R Ryan Fleury 04:13
Today we are speaking with Dr. Anna Lembke, who is a Professor and Medical Director of Addiction Medicine at Stanford University. And also the author of a book, which is the content of our show we're talking about today called Dopamine Nation.

R Rob Mineault 04:28
Yeah, I read this book over the break. And I have to say, I love it. I, I think this is a really important topic.
.....

And I'm really excited to get a chance to talk to her.

L

Lis Malone 04:44

Extremely relatable content, I think for everybody.

R

Rob Mineault 04:47

I guess, to sort of fill in the audience. So Dopamine Nation, it's really a book about addiction and looking at addiction in a variety of different ways and breaking sort of down how it works with In the brain, I think that it's really a relevant conversation these days, because I really think that addictive behavior is is something that is becoming more and more of a problem within our society. And that's sort of somewhat what what the book is about, too, is all the different addictive behaviors that people are, are gaining through just sort of innocuous platforms like social media, or like video games, or even Netflix, I mean, hell binge watching. I mean, you could argue that that's, that's a type of addictive behavior. So I'm really excited to get the chance to talk to her and I know that, you know, after reading it, I've looked at some of my own behaviors and gone Hmm, I wonder if I need to, to change some of these behaviors up? Because I don't know, there might not be anything just as innocuous as having a addiction to Netflix?

S

Steve Barclay 05:58

Well, I wouldn't be too concerned about an addiction to Netflix, you know, it's not like you're doing heroin or anything? Well, unless you're doing heroin, while you're watching Netflix.

R

Rob Mineault 06:05

Well, you don't know how I watch Netflix. Know, but you know, you laugh. But you know, I did actually go through I think I went through a little bit of an addiction thing. And every everyone's gonna laugh, and I'll probably get some nerd cred on the street here. But there was a good three or four years where I went right down the rabbit hole of like World of Warcraft, which is like a video game. But holy crap, do they set that video game up as like, just a huge, big, one big addiction machine, like, I remember, like, I would just go home, like, I would go home from work, rush home from work, and like, just sit down the computer and just like, launch into this game. And yeah, there was a social component of that, because it's a, it's a multiplayer game, you know, and I had friends and stuff that, that we would play in, and connect and stuff. And so that was all an element of it. But even the mechanics of the game is really built in a way where you are just constantly like just grinding progress, like trying to get further and further and like, trying to get like, you know, stupid stuff, like, you know, I want to get this set of armor for my character, and but I have to, like grind all these hours into it. And they really do build these, the mechanics of something like that, as a real like almost like a, like a slot machine addiction, or a gambling addiction or like it, they really do sort of tie into the psychology of the brain when they build these mechanics. And that can be a real danger to people.

S

Steve Barclay 07:36

Yeah, a lot of, you know, I've played a number of games online, through my my phone, and one in particular that I got on to clash of Clash of empires. So something like that, I can't remember the exact

name. But that game is set up to basically pilfer your money like crazy. Some of the people that I play with on that game, you know, they were talking about how much money people had spent on it, you know, it's a little phone game, you know, you're sitting there, you're building your castle, you're going around, you're beating up other castles, stuff like that. Some of them have spent 1000s of dollars on it 1000s. Like, I've spent a grand total of \$3.50 on that game, because that's what it took for me to be able to upload a personal avatar, and now it's got a picture of my bulldog on my account. But that's the only money I've given the game. But 1000s and 1000s of dollars, you got to think wow, there's there's some element of addiction at work there.

R

Rob Mineault 08:36

Well, those are those are really interesting games to all those that you know, they call them freemium games, because even if you don't spend any money on them, what they do encourage you to do is that a lot of the the progress in those games are sort of time locked, or time gated or whatever, right. So you can you know, you can upgrade your whatever your castle, but you have to wait like four hours to do it. Right. So what that does is that it it creates this behavior where you're logging into the game, every, you know, every four hours to do all these upgrades. Because of that and so it is sort of still you're still paying even though you're not paying money you're paying time and you're building your entire day around you know, the game which is really nefarious and and it really does like it's like I said it ties into that brain chemistry part of it, which is which is going to be really interesting to talk to Dr. Lembke about.

R

Ryan Fleury 09:32

For me anyway they need to change the Doritos recipe because that's one of mine.

R

Rob Mineault 09:37

Listen, I've often said that there's something in Dorito dust that's addictive. There is totally an addictive quality the same with fast foods right like that stuff. You get addicted to that rush of like having those fries like there's something about like sitting down with a hot batch of McDonald's fries and dipping into it. catch up, because man, that's there's nothing better.

S

Steve Barclay 10:03

You look at a bag of Doritos bag bag of Doritos suggested serving sizes I believe 10 chips. And chips is how much it takes for me to decide if I'm eating Doritos or not, you know..

R

Ryan Fleury 10:14

I can eat a bag a day.

R

Rob Mineault 10:16

Yeah. 100%

L

Lis Malone 10:19

I certainly don't have the the food addiction, I can usually walk away from things, but I'm one of those who fills up my Amazon cart. I just keep adding to cart adding to cart adding to cart and then at some point, I have to stop and I have to take a breath and look. And then oh gosh, delete, delete, delete, delete, delete, but I but I know that there are people who don't have that extra step of deleting things from the cart. But I get it it's you get this joy out of clicking like Yeah. Add to Cart Add to Cart. Yeah. Oh, no, no, I want this Add to Cart. And it is it's, and I'm sure Dr. Lembke is going to talk about it more. It's getting those little dopamine hits.

R

Rob Mineault 11:02

Yeah, exactly. And it's okay. Hey, Ryan.

R

Ryan Fleury 11:10

Yeah, Rob.

R

Rob Mineault 11:11

Hey, I also hear that people can call us if they want to leave a leave us a message or make a comment. Is that true?

R

Ryan Fleury 11:19

That is true. If they have a comment or suggestion for a topic or a guest for the show, they can give us a call at 1-844-996-4282

R

Rob Mineault 11:32

We guarantee that you will get a dopamine hit with every message that you leave. So okay, maybe we can't guarantee that but oh, yeah, we actually no, we can't, we totally can. Because look at all those accessible overlay companies. They totally make false claims all the time. And nobody's sued. They're so yeah, you know what? You're totally get a dopamine hit, if you call that number and will flood your brain with dopamine guaranteed?

S

Steve Barclay 12:02

Yeah, man, you can't blame us either. Because it's just the industry we're in.

R

Rob Mineault 12:08

All right, well, let's go ahead and bring her on. And let's let's get get some dopamine levels going.

R

Ryan Fleury 12:14

Right. Joining us now is Dr. Ana Lembke.

R

Rob Mineault 12:16

Well, Dr. Lembke, I want to really thank you for joining us today. Why don't we start out by just telling us a little bit about yourself and a little bit about the book?

D

Dr Anna Lembke 12:30

Sure. So I'm a psychiatrist. I'm on the faculty at Stanford University School of Medicine. I see patients I teach I do research. I wrote a book called "Dopamine Nation: Finding Balance in the Age of Indulgence", which is all about how our primitive wiring is mismatched for our modern ecosystem. Or another way of saying that is that we've all become vulnerable to the problem of addiction in this dopamine overloaded world, where we have almost infinite access to these incredibly potent feel good substances and behaviors. And my book is not just about the problem, but also has practical solutions for what to do about it based on people with addiction recovery, who I consider to be modern day prophets for the rest of us.

R

Rob Mineault 13:23

So why don't we start really basic and for the audience, just can you explain to us exactly what is dopamine?

D

Dr Anna Lembke 13:32

Dopamine is a chemical that our brain makes, it's fundamental for the experience of pleasure, motivation, and reward. It's also very important to movement. So when people get Parkinson's disease, they have too little dopamine. And it's no coincidence that dopamine is related to both movement and motivation. Because of course, in order to get the object of our desire, we have to get up off the couch and go get it. Dopamine is thought to potentially be even more important to motivation than it is to pleasure itself. In other words, more important to wanting than to liking. And my favorite experiment to illustrate this is some scientists took a rat and engineered it, so it had no dopamine. And then they put food in its mouth. And they saw that the rat, chew the food and seemed to get pleasure from it. But when they put that food, a single body length away from the rat, the rat starve to death that couldn't be bothered to get up, how locomote one body length away to get the food that it needed. So dopamine is really, really key for motivation, and also for the experience of pleasure, and reward. And dopamine is the key molecule in the process of becoming addicted. And that's where I talk a lot about in the book, the basic neuroscience of addiction, and how that neuroscience can provide a framework for all of us as well. Thinking about our consumptive choices in the world.

R

Rob Mineault 15:06

So in terms of this connection to addiction that dopamine has, is that a fairly new revelation? Or is that

something we've known for quite a while?

D

Dr Anna Lembke 15:18

I would say in the grand scheme of things, it's pretty darn new. So we knew that dopamine existed in animal brains for quite a long time. But it wasn't until the 1950s that dopamine was recognized as a human brain neurotransmitter. Since that time, there's been an explosion of research around dopamine, just 10s of 1000s of papers published, with some of the most exciting recent findings being functional imaging brain scans in humans, of what's going on, as people become addicted and as they recover from addiction. So it's pretty new, it's a pretty new idea. And of course, our understanding of addiction is being progressively refined as well, you know, and what we think right now about the role of dopamine and how the brain changes and addiction will probably be continued to be modified as we move forward. This isn't the end of the story, just it's just the beginning.

S

Steve Barclay 16:18

Are we to the point where we know, differences in the brain as to how dopamine affects younger people versus older people? Are there differences there?

D

Dr Anna Lembke 16:32

Well, we certainly know about differences in development in the young brain versus the older brain, and then we kind of infer it, that's that differential development and its impact on our relationship with dopamine, let's say. And then the most important thing to know there's that we have more neurons than we'll ever have at about age three. And from about age three to age 25, there's a slow process of pruning back on the neurons that we're not using. And making the neurons that we do use often making those circuits more efficient by myelin myelinating them, so putting on a protective sheath that makes them work better and faster. And this process is called pruning. And it does mean that the kinds of coping strategies and things we learn how to do in childhood and adolescence up until age 25 will have a direct impact on which of those neurons we keep and which are the ones we prune away, so that if we develop sort of maladaptive addictive coping strategies, in that crucial window, it's likely to affect us throughout our adult life.

L

Lis Malone 17:57

Dr. Lembke, I was very curious to find out a little bit about what your personal motivation was in, in writing this book and I, I really enjoyed the fact that you took so much time and effort to really dig into your own personal life and share some very personal details about your own experiences with dopamine. So I was curious about what your motivation was when you decided to sit down and and put pen to paper?

D

Dr Anna Lembke 18:25

Yeah, thanks for that question. I think my main motivation is was just really to help people. I feel like, you know, I had accumulated a certain amount of wisdom, after 25 years of seeing patients, and I felt like it would be helpful to share that with other people. But I was also trying to make a larger point about the

mental health problems in the world today. And that larger point was, you know, we are seeing increasing rates of depression, anxiety, and suicide all over the world, especially in rich nations. And it's really a puzzle, because we have more things than we could ever want. We're living longer, we have all kinds of amazing medical interventions to stamp out disease. I mean, by all objective measures, you think we would all be happier than ever. And yet, the World Happiness survey, reports that people, especially in rich nations, are less happy in 2018 than they were in 2008. Rates of depression have increased 50% In the last three decades, especially in rich nations, rates of anxiety, suicide are going up. And I really believe that one of the main reasons that we're all so much more unhappy is not because we necessarily Are you know, You're into more trauma or the income gap or don't have access to, you know, medication or health care a lot of the reasons that you hear about I think one of the main drivers is that we're constantly bombarding our reward pathways with too much dopamine. And as a result, we are driving down our own endogenous dopamine production, which is making us anxious and depressed. And not only do I believe that, based on my experiences with my patients, many of whom come to me seeking help for anxiety and depression, and who get better just by abstaining from their drug of choice without any other intervention alone. But also my own experience with as I describe my addiction to romance novels, are over the course of becoming addicted to romance novels. Number one, I didn't even see it happening. And number two, it really led me to get less and less joy. From other things in my life, there was this narrowing of my focus, which happens in addiction, where other things more modest rewards become less enjoyable, I was no longer interested in my work, and my children and my husband. And when I recognized that I had developed an addiction and then eliminated eliminated my drug of choice for a period of time, I recaptured that original joy. And so really wanting to draw a parallel between my admittedly quite minor addiction in the grand scheme of things, and the more severe addictions I see among my patients, and then extend that even further out to capture, you know, these broad public health problems that we're seeing with worsening mental health, and to essentially hypothesize that it's dopamine overload that's causing the kind of general misery that we see today.

L

Lis Malone 21:57

Well, you definitely were not the only one absorbing all the mommy porn, hence the success of 50 Shades of Grey.

S

Steve Barclay 22:05

Indeed.

R

Rob Mineault 22:06

But that sort of opens up a sort of another question, because one of the things that I found really interesting about the book that you talk about is that once somebody has some sort of an addiction, that really changes the the neural pathways forever, it seems. So I guess my question is, is there really any such thing as sort of an innocuous addiction? like it could could very well being, you know, addicted to something like Netflix that doesn't seem to be, you know, all that big of a deal .. but does that open up somebody to maybe get another addiction to something else that might be a bigger deal?

D

Dr Anna Lembke 22:51

It's a great question. I think we really don't quite know the answer. So So let me talk first a little bit about

why we do think that there are some permanent brain changes that occur once people become addicted. It's based both on animal evidence, and also experiential knowledge of people with severe addictions, which may not necessarily translate to a, you know, modest, Netflix binge watching problem, right? That we don't have data for. But just so your listeners are aware what it is based on. There's a very famous study in which rats were progressively injected with cocaine over a series of seven days. And rats, you know, in a rat holding environment will typically hover on the edges of that environment, they don't like to go into the middle of the cage. But with each successive day of cocaine injection, what those rats are will do is start running, first jogging and then running and then running faster. And by day seven, they're basically in kind of like a manic running frenzy, as measured by how many times they cross beams of light across the middle of that cage. Now, if you then stop injecting those rats with cocaine, and you wait a whole year, which is essentially a rat lifetime, and then re-inject one of those rats with cocaine, what you'll find is they're immediately in a running frenzy. In other words, there's no longer that kind of gradual progression over the seven days to get them in that running frenzy. They're dropped right down into it. And this is very consistent with the lived experience of people with severe addiction. People who will describe that even after years of abstinence, if they're exposed to their drug, or exposed to a similar drug, it doesn't take but a moment for them to be dropped right back into the depths of their addiction. There's no kind of gradual startup period. Now that's not true for everybody with addiction. But it's true enough for enough people that it does make us think that there's some kind of latent brain changes that occur once people have become severely addicted. I will also, though add, you know, as a note of optimism and hope that there is emerging evidence that recovery for so we know experientially recovery is possible people get into recovery and standard to recovery. For decades, a lot of people get into recovery from their addiction. So I don't want by any means to leave your listeners feeling at all hopeless about addiction, or the state of recovery, because there's plenty of reason for hope. But it looks like based on some early work, including the work of my colleague, Ed Sullivan, here at Stanford, that what happens as people recover from addiction is that they don't necessarily reverse the kind of permanent damage caused by their addiction, but rather, find a workaround. So neural networks and pathways that reroute around that damaged area are what allow for the healing in recovery. And, again, remember, we continue to make new neurons lifelong. It used to be thought that once you got to age 25, that was it. You never made any any new neurons. But in the last 30 years, we've discovered that in fact, we continue to make new neurons throughout life. And there are behaviors that we can do that promote neurogenesis or the birth of new neurons, for example, exercise is one of the most potent forms for neurogenesis. So, yes, it's true, that our brains are probably permanently changed by severe addictions to substances. It is not yet known whether process or behavioral addictions like a romance reading, addiction, or a Netflix binge, binge addiction, is going to have the same kind of permanent impact on the brain. But what I will say is that those kinds of behavioral addictions fall follow a very similar trajectory in terms of their natural history, and how it looks in a person's life. So it would be not unreasonable to guess that that there may indeed be some long lasting changes as a result of those behaviors as well.

L

Lis Malone 27:11

If Netflix is a gateway addiction, we are in such big trouble.

D

Dr Anna Lembke 27:18

Yeah, I know, I know. I mean, I think, you know, the, one of the important sort of points that I want people to just sort of be alert to, is just the way in which everything has become more potent, more reinforcing more drug-ified, you know, like, even shows, right? They the way that they kind of end on a cliffhanger, leave that button right there, watch next video. You know, they know, they don't like, like, all the people

who make these things have cracked the code on what keeps us, you know, obsessively engaged, so that it's that much easier to become compulsively over consuming than ever before. I think that's something that people may not be all that aware of, and probably need to start paying attention to.

R

Rob Mineault 28:11

Yeah, that's the really, that's the thing that really alarmed me with with both your book and, you know, there's this this documentary called Social Dilemma. I had a weekend and I read your book, and I watched that documentary. And I was really in a different headspace after that. Because it is a little bit of a wake up call, because this sort of makes me want to pose sort of the question, do we need to change the way that we talk about addiction? I feel like a lot of people when when they hear the word addiction, they think it goes straight to "Oh, it's it drugs, or it's gambling or sex", they never really think about talking about addiction in the sense of like social media, or, you know, all these other like, seemingly innocuous addictive things, that really, they're they're manufactured to be addictive. I mean, the closest thing that I can think of in recent memory was cigarettes. For many, many years, they were they were marketed and they were sold as, you know, something that would that was physically addictive. So do we really need to really sort of sit up as a society and realize that, that marketing in this way is going to really damage our society?

D

Dr Anna Lembke 29:32

You know, I think it's important for us to recognize that especially many of these digital products really have been drug ified which means they have been engineered to be addictive. Now, the majority of us will not actually develop a clinical addiction to these kinds of products, you know, will engage in compulsive overconsumption, we will correct. We'll do okay for a while we'll maybe slip back into it, but will not necessarily get to the point where it's seriously adversely impacting our lives. And just to briefly, define addiction -- addiction is the continued compulsive use of a substance or behavior despite harm to self, and or others. Most of us will not progress to that point. But just because most of us won't get addicted to social media, or video games, or online pornography or online shopping or whatever it is, doesn't mean that it's not addictive, because sometimes I will hear this argument, well, you know, most of us will be fine. Okay, well, most of us will be fine drinking alcohol in moderation, and most of us will probably be okay, using cannabis in moderation. But a subset of us will get addicted to these addictive products. And so I do think that we as a society have to recognize that they are drugs, have to think differently about how we expose our children to these drugs, and have to make sure that we put checks and balances in place to minimize the harm caused by addiction to these digital products, because they really can be addictive and they can devastate people's lives. And children should not have unfettered access to the internet, and to phones, and to Snapchat and Instagram and, and all that stuff.

L

Lis Malone 31:25

So Dr. Lemke, I'm very curious to hear your opinion on the recent disclosures made by the Facebook whistleblower, Francis, how, again, and much of the information that I think we all sort of suspected, but now we, we know, kind of would love to sort of pick your brain a little bit about how someone in your profession felt about hearing this information all coming to light.

D

Dr Anna Lembke 31:53

You know, I think it's important that the corporations like Facebook take responsibility for the harm done by their products. And, you know, to try to pretend like there's not harm, I think, is in bad faith. So, you know, I let me just say to what the, what Facebook has put forward, in its defense is that the studies are not compelling. The studies are not convincing. I don't think we need studies to show us that that some people are harmed by Facebook, you know. And, you know, anecdotally, it's mostly teenage girls. And again, the vast majority of people who use Facebook will not develop a full blown addiction will not incur serious, you know, adverse mental health effects, and a lot of people will benefit. But that doesn't negate that a subset of us will be harmed, that that, that these kinds of products are inherently addictive, and that the corporations have a responsibility, especially to minors and to children. So I don't think it's overblown to conceptualize digital products like social media products, as akin to something like cigarettes, and to think differently about, you know, how we create access to these products, how we tax these products, how we advertise or don't advertise these products to certain demographic groups, especially children. But one of the things that I find interesting and striking, is that today, it seems that there's been this real fixation solely on social media with very little discussion about the harms related to online pornography, online video games, online shopping, online gambling, so I'm, I'm both, you know, heartened that we're having a conversation and actually incredibly mystified that the conversation is so focused on social media.

R

Rob Mineault 34:06

Yeah, and the other aspect of that, too, that is concerning to me, too, is that, you know, we've kind of been down this road before, in terms of, you know, say, say privacy, for example. In the mid 2000s it, there was a big kerfuffle about, about privacy concerns and social media and stuff. And there was, you know, people made noise for a while, but then they kind of just it seemed like, just collectively as a society, we just kind of shrugged our shoulders and was like, Well, okay, we're kind of okay with that. And we just went on our merry way. And I really hope that this isn't that case. I mean, I think that whistleblowers are all great, but, you know, there there needs to be a response. And I don't know if I'm feeling like there's really a strong enough push back against these platforms and about about these systems that they are building that are so incredibly addictive. Yeah, I don't I don't know, it's gonna be an interesting few years. And I certainly hope that that some measures will take place. But you know, as we know, first of all, Facebook has really seemed to their response to just like, You know what, let's rebrand. Let's rebrand and make it worse.

D

Dr Anna Lembke 35:18

Let's be Meta. Yeah. Yeah, yeah, I mean, I think you're, you know, I think you're hitting on something real, this sort of like, you know, moral panic that just comes and then passes like a wave. And that's, that's not really going to help anything. I guess what I, what I, what I, the way I think about this problem is kind of like, you know, climate change, like climate change is not going to be remedied by people not using plastic bags, people should not use plastic bags, they should bring their cloth bags, when they go shopping, because that does make a difference, because every little bit makes a difference. But we also need corporations and the government to step in to help. And I think the same thing with with, you know, this problem, the problem of addiction, the problem of these, you know, the addictive potential, and other adverse effects of digital products, that individuals have a responsibility that they can't just point their finger at Facebook and say, Facebook, get me off of, you know, Instagram. But at the same time, that individuals, you know, have bear responsibility for their, for their actions, the corporation's bear responsibility, and they need to, you know, help parents and help individuals and help schools think creatively about how to help us limit our compulsive overuse.

R

Rob Mineault 36:38

You know, and I was thinking about this, too, over the weekend, is that, you know, is that everything has to be an extreme. And I think that I feel like the first time I really noticed it was, say, the Harry Potter craze. There was none of this, you know, yeah, it's a, it's a great set of books, and people enjoy them. It was almost like a fanaticism. And that seems like ever since then, everything needs to be that or else it's a failure, if people aren't fanatical about it, and cosplaying and creating conventions over something, it's not really much of a success.

D

Dr Anna Lembke 37:17

You know, I really appreciate that comment, because it's so true. And it touches on a couple things. First of all, really what we're experiencing as the dark side of successful capitalism, right? I shop therefore I am, I mean, at the end of the day, what are we but what we consume, that's how we're defined in the modern world, which is really so empty. But the other thing that you're getting at is just the sort of comparison of fact, which is a very pernicious aspect of social media, not just the compulsive, you know, addictive piece, but also the kind of ways in which we now compare ourselves to everybody else on the planet, who's doing so many more interesting and amazing things than we are. So no matter what you do, you end up feeling like it's never gonna be enough. Like, if it's not Harry Potter, forget it.

R

Rob Mineault 38:05

Yeah, that's right. So I want to, I want to step back a little bit and talk about because I found this, I found this part really fascinating too. Maybe you could explain it to the audience a little bit better than than I could. But this connection that that dopamine has with pain. And so the sort of this balance between pleasure and pain, because I do feel like this also factors into some of the societal dangers of addiction that we're looking at. So can you kind of explain explain that a little bit?

D

Dr Anna Lembke 38:38

Sure. So, you know, one of the most interesting findings to me in neuroscience in the last 100 years or so, is that pleasure and pain are co located in the brain. So the same part of the brain that processes pleasure also processes pain, and they work like opposite sides of the back of a balance, like a teeter totter in a kid's playground. So when we do something pleasurable dopamine is released in the reward pathway, and the bounce tilts to the side of pain. But no sooner has that happened, then our brain will make adjustments in order to restore a level balance or what neuroscientists call homeostasis, because that's a major driving physiologic force in the universe in general is getting back to homeostasis. And it will do that by downregulating, dopamine production and dopamine transmission, but not just back to baseline tonic levels of dopamine, it will actually decrease dopamine below baseline levels into a dopamine deficit state. briefly before going back to tonic baseline. I usually imagine this as these little neuro adaptation Gremlins happening on the pain side of the balance, but they like it so they stay on until it's tipped an equal and opposite amount to the side of pain before hopping off and allowing the balance to be level again. And this is really important because it means that every time we do something that is intensely pleasurable, that releases a bunch of dopamine in the reward pathway, there's a price to pay. There's a comedown, there's an after effect. And it's not just like the hangover, there's a subtle little cost. That moment of going into that dopamine deficit state, where we're wanting, you know, one more episode on Netflix or one more level in the video game, or one more YouTube video or one more piece of chocolate. And then here's the real clincher. If we continue to engage with that substance or behavior repeatedly over time, that initial

response gets weaker, and shorter in duration. But the after response gets stronger and longer. In other words, we get more and more gremlins topping on the pain side of the bounce, we need more of our drug and more potent forms over time to get the same effect. And ultimately, those gremlins are camped out on the pain side of the balance and we're in a chronic dopamine deficit state. And that's essentially the addicted brain. Once that happens, in order just to feel normal, we need to keep using our drug of choice. To get high, we need more and more potent forms. Modest rewards no longer work, because a little piece of chocolate is not going to compete with all that chocolate cake I've had over all those weeks and months. And then when we're not using our drug of choice, our balance essentially tips to the side of pain. We're in a chronic dopamine deficit state. And we're experiencing the universal symptoms of withdrawal from any addictive substance anxiety, irritability, insomnia, dysphoria, and intrusive thoughts of wanting to use.

L

Lis Malone 41:30

Is there any sort of biological reason why some people are more susceptible to the dopamine lows than others? Why some people are more prone to addictive behavior than others?

D

Dr Anna Lembke 41:45

Yeah, so there are a lot of theories about this. And first, let me validate your question by saying we're not all equally vulnerable to this problem. Some of us are a lot more vulnerable than others. And it's thought to be probably a combination of kind of a low threshold reward baseline. So individuals who just need a lot more stimulation to feel any kind of reward, combined with a tendency toward impulsivity, not being able to really assess future consequences and acting on a thought or emotion, kind of right away without being able to consider those future consequences, along with the kind of, let's say tenacity, or obsession, ality that willingness to work really hard to get the drug. My my colleague, Rob Malenko, says that the way he is a neuroscientist measures addictiveness in laboratory animals is just simply how hard that animals willing to work to get their drug, how many mazes they're willing to climb through how many times they're willing to press that lever, how many shoots, they're willing to, you know, go up or down. And some people just have just remarkable tenacity around that, like, whereas the average person would be like, Well, that was fun. And more was funner. I'm tired, like I'm, I'm not willing to work that hard, where some people just really they're willing to work incredibly hard, probably driven, not so much by the getting high part as the dopamine deficit part. And when that balance gets tilted to the side of pain, just wanting to be out of pain, wanting to not hurt.

R

Rob Mineault 43:21

So we all sort of share this same neural framework, we all have that that teeter totter between pain and pleasure, and we all share the same use of dopamine, but for some people, there are there are differences in their brains that make them more susceptible to addiction?

D

Dr Anna Lembke 43:43

Yes, absolutely. So about 50 to 60% of the risk of becoming addicted is inherited. If you have a biological parent or grandparent with addiction, you're more likely than the average person to get addicted yourself, even if raised outside of that substance using home. So it's very clear that this is in part an innate kind of vulnerability, but development also plays a huge role. Probably through epigenetics, you know, changes in gene expression based on experience. People who experience trauma are more likely to get addicted

people living in poverty, people experiencing unemployment are more likely to get addicted. But the other really important aspect of addiction risk just has to do with simple access. If you're living in a neighborhood where drugs are sold on a street corner, you're more likely to try them and more likely to get addicted. And this is really relevant for modern times. Because today we have so much more access to so many potent forms of drugs and behavior so much more potent and so much more ubiquitous than ever before, that we've essentially all become more vulnerable to the problem of addiction. For example, if you take the cigarette So in 1880s, a cigarette rolling machine machine was invented. Prior to that, you could make about four cigarettes a minute, once the cigarette rolling machine was invented, they could manufacture 20,000 cigarettes a minute, I don't even know what the modern cigarette rolling machine makes, but you can be guaranteed it's in the millions of cigarettes per minute. And that's true for every single substance across the board, whether you it's cannabis, or alcohol, or MDMA, or what have you. Drugs have become more potent, more accessible, more ubiquitous quantity, and frequency and potency, have a huge impact on whether or not we become addicted. If we use more of a drug or more potent forms of that drug, we're more likely to get addicted. So and then, of course, you know, there are drugs that didn't even exist before, right, like video games like online pornography, like social media, like online gambling. So so this has meant that the kind of risk vulnerability diathesis has really shifted. And that even though it's true, that there are some of us who are more vulnerable innately to the problem of addiction, and others, in the modern ecosystem, we've all become more vulnerable due to increased access potency, quantity and variety.

R

Rob Mineault 46:19

Yeah. And one of the things that I also found really fascinating, that you talked about in the book is our relationship with pain. What what's really chilling to me is this idea that we are now living in a society that more and more people have more access to pleasurable addictive things and have a lower tolerance to pain. Could you can you kind of speak to what the implications of that are?

D

Dr Anna Lembke 46:52

I think the implications are enormous, it means that we're less resilient in the face of obstacles. And at the same time, we have less access to experiencing pleasure, because we've essentially bombarded our reward pathways to the point that we're in this chronic dopamine deficit state. And this is really counterintuitive, but one of the, I think, real aha moments for me, in my work was working with patients with chronic pain due to, you know, very serious and debilitating diseases and injuries, who had put been put on daily opioids as a way to manage their pain, who, over time not only needed more of the opioid and more potent forms to get the same effect, but actually had a worsening of their pain conditions as a result of being on opioids. And that was really just eye opening for me, because it was this realization that, wow, this really well intentioned intervention, you know, giving people opioids to help with their chronic pain actually makes pain can make pain worse, through this process of neuro adaptation, which is a universal reaction to any, you know, highly reinforcing drug that we put in our body, such that these people actually ended up with more pain than when they started. And of course, you know, now that we recognize the problem with too many opioids in this country, and we're having people tapered down and off. studies are showing that a majority of patients with chronic pain who have been on opioids long term who get off of opioids are actually experiencing improvements in pain. And so all of that is just just a really a kind of an example writ large, of what is the potential for all of us living in a dopamine overloaded world, that in a gradual and insidious way, we can become more depressed or anxious, less engaged, more bored, less resilient, and we don't really know why. And yet, I believe that a big part of it is that we're ingesting all of these feel good chemicals and behaviors, which is ultimately making us more unhappy.

 S

Steve Barclay 49:09

That's really interesting. You just described my mom's experience with opioids. She went from she she has chronic nerve pain from a botched back surgery. And she went from where she was taking Tylenol three times a day, you know, stronger forms of codeine ended up on morphine for a while. And the last time she landed in hospital for something unrelated. The doctor looked at all of the stuff that she was on and went, Whoa, hold on, took her off all of that stuff. Put her on Tylenol, and her pain was diminished.

 D

Dr Anna Lembke 49:53

Wow. Yeah, thank thanks for sharing that. I think it's really important for people to hear those stories because it's so counterintuitive. IV. And yet, you know, if you have a family member who has been through that, or like me, I've seen so many patients in that situation, it's just like it's such a wake up call, you know. And also, I would just add that, you know, although chronic pain is very difficult to treat, especially in neuropathic or centralizing pain disorders, there's a lot of interesting promising work using hormesis, or mild to not mild to moderate noxious stimuli to actually help pain. So in other words, ice cold water baths as a way to help pain. Why would that work, because by basically inflicting mild to moderate doses of pain, what we do is trigger our body to upregulate, our own homeostatic healing mechanisms to start making more of our own endogenously, or internally produced opioids that endocannabinoids and dopamine and serotonin and norepinephrine, which is much more enduring and much less susceptible to the problem of tolerance over time. Another exciting, you know, sort of intervention now for chronic pain is using an opioid receptor blocker, like now, Trek's own and very low doses, which has been shown to kind of trick the body into thinking that it's not making enough opioids, and so that it starts up regulating its own endogenous production. So these are, are acupuncture is another great example. Right? How does acupuncture work? We don't know exactly. But one theory that has some evidence behind it is that it's actually the infliction of pain that then triggers the body's own endogenous opioid production as a way to combat pain. So I think these are what we have to think about not just in terms of physical pain, but also emotional pain, what are the sort of challenging and yes, even painful experiences that we can introduce into our lives in mild to moderate doses as a better way to upregulate mood.

 L

Lis Malone 52:02

That reminds me of the chapter of your book, the pursuit of pain, and I believe your patient's name was Michael, who was the former drug addict to then turn to the cold water immersion therapy that you just described. And, I was, I remember being fascinated by his new obsession with making the water colder and colder because he needed it to create a new, I guess, more dopamine. But I'm just wondering, in some cases, are patients inadvertently creating a new addiction from a past addiction?

 I

52:45

Yeah, so this is always the danger, right? What's called cross addiction that in giving up one substance or behavior, patients then latch on to another. So we always talk about that in clinical care. And although I do hold up Hormesis, which is to say, mild to moderate doses of pain as a better and more enduring way to get dopamine, it's also true that people can get addicted to pain, and can you know, take that to an extreme, either, in terms of quantity, so just, you know, for example, with exercise, exercising too much,

or potency, in the case of the ice, cold water, freezing that water down, you know, so so much that it then becomes more like an intoxicant, or a drug, that it is a healthier adaptive behavior. So absolutely something to watch for,

R

Rob Mineault 53:33

You know, and after, and after this conversation, reading the book, you know, I really just, my takeaway, I guess, is that as usual human beings, we've kind of shot ourselves in the foot, because in a way, you know, we've figured out ways to manipulate the brain without really understanding enough about the brain to know, where we're really doing some serious harm to ourselves.

D

Dr Anna Lembke 54:01

Yeah, and I think to just that, you know, again, I do think that our society and the industrial revolution and capitalism is just all geared toward, you know, making intoxicants and that sort of the path of least resistance in terms of immediate gratification and wanting that quick fix. And I do think that we need to resist that because that that's the path path of doom if you asked me, and if you ask my patients with severe addiction, they're the, they're the ones who have figured it out before the rest of us. We really have to, you know, figure out a new way of, of living in this ecosystem, not just, you know, for our own health purposes, but also, you know, in terms of the planet, right, when you look at our consumption of all of these products, it's also leading to the demise of our planet. So for many different reasons, I think we need to gain perspective. Step outside of our immediate gratification, resist the kind of quick pleasures, at least in the doses that we're currently consuming them. And then actually, intentionally try to make our lives a little bit more stressful, a little bit less convenient, a little bit harder.

R

Rob Mineault 55:20

The other thing that really fascinated me too, is this idea of as human beings, we really weren't meant to live in a society where we have access to absolutely everything we need anytime we need it. Like this is a really foreign place that we find ourselves in. Because really, the whole system was built, if you think about it, on an instinctual level, in terms of, we're supposed to be seeking out things that bring us pleasure, which ideally, are things that keep us alive, like eating, and procreating, and that sort of thing, things that keep the species going. And we're supposed to avoid pain, in terms of those are the stuff that that's that's the stuff that's going to actually kill us out in the wild. And really, there's supposed to be this balance, you know, we're not supposed to, to have just access to one and none of the other. And that is really sort of creating a lot of this, this these mental health issues that we're seeing.

D

Dr Anna Lembke 56:18

Oh, absolutely. I mean, you know, when you think about well, it seems like nature's cruel joke, why on earth would nature make pleasure be followed by pain? Well, the reason to do that is to keep us seeking, right, which is totally advantageous in a world of scarcity and ever present danger, but terribly mismatched for a dopamine overloaded world.

L

Lis Malone 56:40

What advice would you give to somebody who is confronting somebody who is living with a harmful addiction? I know that when they get to you, they're in a, they're in a place where they're ready to start taking some steps. But before they get to your office, and the loved ones, friends and family, are trying to get them to that place. Any advice that you could give people?

D

Dr Anna Lembke 57:10

Well, first of all, I would say that probably most of the patients who walk through my office door are not ready to make a change. I wish that were the case, there's a lot of powers of persuasion that has to be called on. And, you know, part of why I wrote the book was to sort of extend those powers of persuasion to other folks out there who might wonder if they themselves have a problem, or if their loved one does or know, their loved one does and want to know how to convince that person. I think that neuroscience is really compelling and convincing. In this day and age, I find if I talk to a patient, you know about all kinds of reasons to change their behavior. It doesn't carry the same weight as if I started talking about the science, somehow science is like, oh, okay, that sounds real, I'd better do that. So I do think, you know, understanding the neuroscience and the pleasure, pain balance is really helpful. And then as I talk about in my book, you know, I've developed this kind of simple framework of the dopamine fast, which can be incredibly illuminating for people, just as a way to discover that they were addicted, I have many patients who do not think that they're addicted. And they do the dopamine fast, where they abstained from their drug of choice, if they're able, not everybody can, but many can, for one month, and they come back and they go, Wow, I hadn't realized the impact that my consumption was having on my life. And what's great about that is that then I don't have to convince them anymore. They feel so much better, having abstained for a month in most cases, and they see true cause and effect that they're now motivated on their own to make a change in their lives. And I don't have to persuade them anymore.

L

Lis Malone 58:56

Steve wants me to give up candy corn for 30 days.

D

Dr Anna Lembke 58:59

There you go. That needs to happen.

S

Steve Barclay 59:01

Yeah, I agree. Yeah. Candy Corn is just wrong.

D

Dr Anna Lembke 59:07

It is wrong, the taste, and the shape. And the shape, I cannot relate to the candy coated addiction at all. But that's the amazing thing about addiction. Everybody's got a different drug.

R

Rob Mineault 59:21

Dr. Lembke, I have to again, thank you so much for taking some time out of your day and talking with us. I

love the book. The name of the book is Dopamine Nation: Finding Balance in the Age of Indulgence. I recommended to everybody out there. We will put the link to buy it in our show notes. Where can people find you online?

D

Dr Anna Lembke 59:42

Well, I am not on social media. But there is a web page that was made for the book called the www.dopaminenation.com or www.annalembke.com. It's the same webpage.

R

Rob Mineault 59:53

Well, thank you again. And yeah, that's a lot to think about.

D

Dr Anna Lembke 1:00:00

Well, my pleasure, it was really a nice talk with all you. You all have sort of soothing voices? Which I don't know why that is, but it's been really nice to talk to you.

R

Rob Mineault 1:00:08

No problem as long as it's not hitting the dopamine and making your dopamine spike?



1:00:13

Yeah, not now. Not not too bad.

R

Rob Mineault 1:00:16

Okay, good.

L

Lis Malone 1:00:17

Got a new listener to the podcast.

R

Rob Mineault 1:00:21

Awesome.



1:00:22

Thank you so much. Thanks for having me and for reading the book.

R Rob Mineault 1:00:24
Awesome. Thanks. Bye. Bye.

S Steve Barclay 1:00:27
Bye. Thanks. Take care.

R Rob Mineault 1:00:29
Wow, holy cow. Well, who feels smarter around here?

L Lis Malone 1:00:34
I feel smarter.

R Ryan Fleury 1:00:38
Smarter-er?

S Steve Barclay 1:00:38
I feel like there's so much more to know.

R Rob Mineault 1:00:41
Yeah, there really is. Steve, I would highly recommend reading the book. I think you would get a lot out of it. I think like, honestly, like, it is a really an important book to read, especially given like we talked about this total unfettered access to, you know, material and entertainment, constantly bombarded with it. I really think that it's, it's something that everybody can really think about and to really evaluate how how you're consuming things.

L Lis Malone 1:01:15
And can if I could just add something is I listened to Dr. Lembke's audiobook version. And after just speaking with her now and having read, I'm sorry, listened, read the audiobook, I can definitely say that, listening to the book, it's sort of like getting your own little session with her. Because she speaks and she writes in first person, and it's it's just a very enlightening and introspective work that she puts out there.

R Ryan Fleury 1:01:47

There really is, there's also been a couple podcasts that are up on YouTube. There's a couple that are about two hours in length, people interviewing her as well talking about dopamine and the psychology around it. So definitely take a look online, because there's lots of information out there.

R

Rob Mineault 1:02:04

You know, it's just it amazes me just how little we really know about the brain still, like we really don't understand all the intricacies of how it works and why we do things that we do. And there's so much work left to be done in that field. It's why pisses me off that, you know, people go into space. Stop going to space, let's let's focus in on the brain. Let's look at the ocean, explore the ocean, solve world hunger. Yeah, we have a lot of problems that we sought to solve. Other than sending William Shatner to space.

S

Steve Barclay 1:02:40

Yeah, that did have to be done.

R

Rob Mineault 1:02:41

Okay, fine. He gets a pass. William.

L

Lis Malone 1:02:43

Oh, they should have left him there. I'm not a Trekkie. Sorry.

R

Ryan Fleury 1:02:49

But he's Captain Kirk. Come on the legacy there.

S

Steve Barclay 1:02:52

Yeah, Canadian. So be nice. Yeah, he's, he's our peeps.

R

Rob Mineault 1:02:57

But yeah, yeah. But see, in all seriousness, I really I really do think that these, these conversations that we're having about are especially around social media and stuff, and and the societal damage that it could very well be doing. I think they're very important conversations to be having.

S

Steve Barclay 1:03:16

Yeah, I just was gonna say, I don't think that there's really any doubt that that social media is causing harm. I mean, that's pretty much proven. It. You know, it's, it's interesting that when you you look at a show, like the social dilemma, you know, there's, there's people in there talking about how, you know, they

made this change to the platform, and they made that change the platform, and the suicide rate amongst young women went up, and are you out of your mind? Where else are you allowed to experiment on humans like that? Why why is that being allowed to happen? That's, it's insanity. But it's, I guess, just because we, you know, clearly our legislators don't understand the the power of these platforms, and just how much of an effect it has on the human brain.

R

Ryan Fleury 1:04:04

In fairly short time, we are going to start seeing, I think, some legislation around social social media platforms for sure.

R

Rob Mineault 1:04:10

Really see, I hope so. I mean, you're you're a little bit more optimistic than I am. Because I think I think that you hit on earlier and Steve, exactly what the problem is that I think a lot of legislative bodies just don't understand it. And I think that in general, like people, just like on social media, they see it as a as a harmless thing. And it's just, it's just not when you look at the big picture of it. So I hope so. I hope you're right, Ryan, I hope that people, especially with all these whistleblowers and stuff coming out, I like to think that there's some changes happening, but I have to think back to like, the, whatever, the late 2000s where all the privacy concerns came up, and people just kind of went wow, wow, whatever. And they just, they didn't do we didn't do anything about it.

R

Ryan Fleury 1:05:00

One I think that's where, you know, people have to do their homework, they have to dig in a little bit more look at the science, look at the statistics. You know, there's enough facts out there to show the detriments social media has had on society. Like Steve was talking about the suicide rates. There's there's more to it than just that. And all you got to do is look at your kids and their screen time. It's not hard to see.

L

Lis Malone 1:05:24

The whole thing was viewed from one angle and that's profit.

R

Ryan Fleury 1:05:28

Yeah, right. And just as a reference to Social Dilemma Steve talked about it, is available on Netflix.

S

Steve Barclay 1:05:35

Yep, indeed. And it is terrifying. Definitely, definitely watch it. I'm telling the scariest movie you'll watch out here.

R

Rob Mineault 1:05:44

Yeah, that's right. Forget Fear Street. Just watch social dilemma. It's true. Yeah, and I would like I honestly, like if you really want to shake up your worldview, watch Social Dilemma. And then read Dopamine Nation. it's really going to open your eyes. I'm like, I'm seriously thinking about like having like, one day a month where it's just screen free day. Maybe even more than one time, like maybe every two weeks or something. Just have a day where you're just like, You know what? Putting my phone away? No TV, no internet. I'm just gonna read a book or something.

R Ryan Fleury 1:06:21

On your tablet.

R Rob Mineault 1:06:25

You're right, I'm gonna have to go buy a physical book, I guess.

R Ryan Fleury 1:06:27

Exactly right. Like you'd like it. Think of the world we're living in now. It's it's consumption. It's instant gratification. Everything's within reach. Right?

R Rob Mineault 1:06:36

You know what's so weird about that, though, that you're we we remember a time when you know that before the internet.

R Ryan Fleury 1:06:46

You had to go to a library to check out a book.

L Lis Malone 1:06:50

Even we decimal system.

S Steve Barclay 1:06:51

Yeah. The encyclopedia was Google.

R Rob Mineault 1:06:54

Like, I remember those times. And yet the idea of going back to that is really hard for me, so I can't even imagine what it what it must be like, as a 20 year old who grew up with all that stuff grew up with the internet to be like, Yeah, I'm just gonna completely remove myself from that for a day. Must feel like really,

really super daunting. But, I mean, I can't go my PlayStation either. Damn it.

R Ryan Fleury 1:07:23
Nope.

R Rob Mineault 1:07:27
Okay. Wait, maybe a couple exceptions.

L Lis Malone 1:07:38
Already bargaining?

R Rob Mineault 1:07:38
Look at that. I know. All right. Well, whatever. I'll keep you guys posted on how that goes.

L Lis Malone 1:07:49
Can we get Dr. Lemke back on the line?

S Steve Barclay 1:07:50
Yeah, we might have to

R Ryan Fleury 1:07:52
Yeah, we might need to start scheduling some sessions.

R Rob Mineault 1:07:57
Not a bad idea. All right. Hey, Ryan. Rob. Where can people find us?

R Ryan Fleury 1:08:02
They can find us online. www.atbanter.com

R Rob Mineault 1:08:05
Hev they can also drop us an email if they so desire at cowbell@athanter.com

hey, they can also drop us an email if they so desire at cowben@atbanter.com

S

Steve Barclay 1:08:15

And if you've disregarded everything we've said today about the evils of social media, you can also find us on Twitter, Facebook and Instagram.

R

Rob Mineault 1:08:23

But don't go on there because they're bad for you. Yeah, just or if you do go there, just look at our page and then move then just close it. Yeah, whatever you do, don't do anything really.

S

Steve Barclay 1:08:34

They will start tracking you.

R

Rob Mineault 1:08:35

Or really, or you could just go about you know what, just go on Spotify and just listen to our old episodes. That's a really that's the best way. That's how you really get who we are, is listening to our voices for like 260 hours.

S

Steve Barclay 1:08:49

Yeah, and I'd recommend that you do all in one sitting if you possibly can, because that's the best way to become fully addicted to the AT Banter podcast.

R

Rob Mineault 1:08:57

It's true. Build it right into your schedule. Every four hours. You need to be listening to an episode. There you go. I don't know if we want to do that. Like do we really want a bunch of people addicted to the AT Banter podcast?

S

Steve Barclay 1:09:10

We need a points card now.

R

Rob Mineault 1:09:16

Yeah, that's true. Are we could we wait a minute, we get everyone addicted to the podcast. And then we set up a Patreon account where we where people could pay for extra episodes, or they could pay to just talk to us one on one.

S Steve Barclay 1:09:35
That's almost like a church.

R Rob Mineault 1:09:37
So I find Ryan's voice so soothing, and it just increases my dopamine levels. I just need to talk to him. We'll work on that.

R Ryan Fleury 1:09:49
Uh huh. Yeah. All right. And so Lis do you want to give out any contact information for yourself?

L Lis Malone 1:09:56
Well, you can certainly find my podcast on all major platforms. It is under Breaking Dishes.

R Ryan Fleury 1:10:04
And I am anxiously awaiting another episode

L Lis Malone 1:10:07
There is one in production.

R Rob Mineault 1:10:11
Can you tickle us with a feather and tell us what it's about?

L Lis Malone 1:10:14
I have two that are in production right now. One I am talking about, about grief. And not to sound too depressing. I'm balancing that with talking about family ancestry in another episode.

R Rob Mineault 1:10:31
Awesome. All right. You know, look forward to that. Keep us posted.

L Lis Malone 1:10:35
I will.

 Rob Mineault 1:10:36
Thank you.

 Lis Malone 1:10:36
Thanks for having me.

 Rob Mineault 1:10:38
Yeah. Thanks for helping us out again. This week was a pleasure hosting with you and I'm sure we'll see you again very soon.

 Lis Malone 1:10:47
I hope so.

 Rob Mineault 1:10:48
Alright, that is going to do it for us this week. Thanks, everybody for listening in. Big thanks to Dr. Anna Lembke, of course for joining us, and we will see everybody next week.