

Hey, listener, and welcome to SmartList.
Before we get into this incredible episode,
I want just a moment of your time
to set the stage a little bit.
Sean and Jason and I went on a SmartList tour last year
where we recorded 10 episodes live
in front of thousands of our biggest fans
from Brooklyn to Los Angeles, and guess what?
Right now, there are more live episodes
from our tour on Wondry Plus that you can listen to.
You can listen to these episodes four weeks early
and add free on Wondry Plus,
after which you can hear them for free
wherever you get your podcast.
Find Wondry Plus in the Wondry app or on Apple Podcasts.
All right.
Welcome to SmartList.
This is officially a cold open, I guess.
This is a cold open.
Right?
This is like on the podcast, we just kind of talk
before we say what the name of it is.
It's like an intro, and then we've got to be like,
we've got to be like professional.
Yeah.
Oh, we usually just talk when I'm saying.
You're just talking when I'm saying.
You're just talking when I'm saying.
I don't know how to tap into this.
That's okay.
Just say the only thing that you know how to say.
Welcome to SmartList.
Smart.
Yes.
Smart.
Yes.
Smart.
Yes.
We're so happy to be in Boston.
We are so happy.
Thank you for being here tonight.
And you guys, you guys rolled out
your nicest weather for us.
Yeah.

Felt like being home in Canada almost.
But thank you, thank you, thank you,
not only for listening to our garbage,
but coming out and looking at our garbage.
That's a better way to say that.
There's a way for it.
That's a better way to say that.
So, all right, let's sit down.
So, oh wait, somebody left their phone here.
That's me.
I brought it, it's in my pocket.
I don't know why.
If I do get a call though,
we're just gonna take a quick break.
Okay, I'm expecting, it is mine.
Sorry.
The camera was on too, granddad.
Yeah, my flash was on.
Here, put it over here.
And I'm chewing gum.
It's a really professional operation here.
All right, so.
Let me ask you something.
Do you guys, how is traveling going for you
with all of this?
Great interview questions.
Sean did a little preparation, is that what?
No, I want to want to know that because
as of this morning, Will started calling me Katy Perry.
Well.
Because I bring so many outfits with me.
And this is the best you could use.
So, it was just, I know.
Well, the true story is the sweet girl
who picks out my clothes for me
because I don't know how to do that, clearly.
She sent me, she sent over, God love her,
she's a really close friend,
but she sent me over two of the exact same outfits today.
Right.
So, I kind of put this together willy-nilly.
It is a new thing for us because we,
you know, we do this thing on our laptops.
And we were.

No, we don't, we're together, we're together,
we're together.
We wear pajamas.
So, this whole notion of having to dress
and actually have a specific time and all that stuff,
it is odd.
And that there's people here.
Yeah, yeah.
And usually one of us is a few minutes late.
I am common, I am commonly late.
Oh, that's you.
I am.
Okay.
But here's it, I don't like to be,
if you're early, you've wasted time, right?
Do you, you have, you have an issue with?
No, I just, we got a lot of milling around going on there.
By the way, I'm interested.
I too, I go to a doctor's office now late
so I don't have to wait the 20 minutes they make me wait.
Right.
I just go, right?
By the way, you still have to wait.
But do they like that?
They love me for that.
This sounds familiar.
I feel like we talked about this, maybe.
I don't think we've ever talked about that.
I don't think we've ever.
I don't think we've ever.
I don't think we've ever.
You're never, you're never early or late, are you?
No, I'm right on time.
You're always right on time.
Yeah.
What is that?
Just because I have, just because I respect you.
Primarily.
The implication is I don't respect you.
Here's the other thing I discovered the other day.
Go, what were you gonna say?
Well, I was just gonna say about calling you Katy Perry.
It wasn't just that, I just kept going,
I don't know, ask Katy Perry over here.

Like that, so just bully.
And then we all have, you're gonna make me roar in her head.
Yeah.
And Jason, you've been singing that all day.
I can't, I'm so, I can't, is everybody,
when you get a song in your head,
you can't get it out, am I the only one?
But like, it lasts an abnormal amount of time,
like a week, I'll get something stuck on my head.
They say like to count down backwards
from a certain amount of number
and that will make you stop thinking of the,
are you doing it right now?
Does it just work for songs?
Yeah.
I should, I'd like to forget.
Like that kind of.
Yeah, so I would just, if that works, I wanna do that.
Well, the other thing that happened to me yesterday
was I found, my back has been itching
and then we have, we have this.
Wait, are you gonna get,
Yeah, so we have this.
He's backing into a plug
for a hypochondriac to his other podcast.
And, and, and.
So Sean, we're in conversations in the hotel room
and Sean does a lot of this, he's like, uh-huh,
what's going on?
And he gets up against the door and he's going, really?
Yeah.
Like the dogs.
Like non-stop.
Plug and scratches his.
Yeah.
So then we, our friend Eli's with us
and who we love and is a very good friend of ours.
And, and I'm like, what's going on with my back?
He goes, take your shirt off, let me see.
So I took the thing and I'm back and he goes,
that's shingles.
Truly?
Yeah, he said I have shingles.
Oh, were you not there?

No.
No, he went, oh my God, that's shingles.
And I'm like, what?
I just got the vaccine for shingles.
How could I have shingles?
Right.
Cause if there's a vaccine for it, it's in my body.
Yeah.
Right, huh?
Oh.
Yeah.
Right?
Yeah.
Good, good health isn't political.
No.
Wow, say that again.
Thank you.
No, thank you.
You can get a shot.
Who's got a pen?
Yeah.
I used a pen earlier to write my, my intro.
And since we're talking about science,
it's a great segue.
Fellas.
All right.
I wanted to tap into the brain power of this city.
Okay.
We got a big brain coming out.
Uh-oh.
This fella has a master's and a PhD from Berkeley.
He's a fellow at Princeton.
He has tenure at Penn.
He arrived here at MIT in 2004, where he still works today.
He does it all from physics to cosmology
to quantum stuff and computers.
He's going to explain what it is.
Stephen Hawking.
Will Ferrell.
Stephen Hawking.
Please welcome a guy.
You can definitely make us all more smart,
not less smart.
Smart less, you get it?

Max Tegmark.
Oh!
What?
Max Tegmark!
Come on, Max.
Oh my gosh.
Get out of here.
There he is.
Max.
This is Max Tegmark.
How are you, man?
It's so nice to meet you.
Pleasure to meet you, sir.
Come on.
Please.
Please.
This is so exciting.
Well, see we have the same stylist.
Wow.
He wears a little better than you do.
He certainly does.
Now, can you do a better job than I just did
of explaining what it is that you do?
First of all, how do you introduce yourself?
Well, call yourself what you do.
By the way, you look like a rock star.
Well, it depends on what I want.
Like if I'm on a long flight
and I just want to be left alone,
the person asks me what I do.
Do you say you're a pedophile?
Physics.
That was my worst subject in my school.
Five hours of silence.
Right, right.
But you are a...
If I want to talk about astronomy,
I'm like, oh, I'm a Virgo.
Oh, nice.
Or maybe if I say cosmology,
they'll be talking about eyeliner and makeup.
Okay, so the class you teach is...
Oh, it's whatever they want me to torture
the students with that year.

So it can be either torturing the freshman
who came out of high school with the basic physics
of how stuff moves to torturing the grad students
with some advanced topics about our universe.

Okay.

Or most of my time,
I spend actually torturing my grad students
doing research on artificial intelligence.

Okay, okay, good.

By the way, this is everything I'm for.

Will you marry me?

No, I'm kidding.

I want it to go.

You probably have a bunch of stuff.

You'll have to ask my wife over there.

Well, that's...

I saw this documentary on artificial intelligence
and what I was surprised to learn
is that it's not about like robots
like the Steven Spielberg movie.

It's more about the amount of computing speed
that we now can do such that,
like I think they said in this documentary,
you can put all the books that have ever been written
into a computer now,
and you're gonna tell me whether I'm right or wrong.

I bet I'm close to right, but probably wrong.

You can put all the books into a computer
and the computer will ingest all that information,
separate it out, and be able to give you an answer
about anything that you can ask them
if the information was in any of those books
from languages to rocks to...

I mean...

Isn't that called Google though?

Well, I'm sure you could explain that,
but like that's artificial intelligence.

That's...

Well, yes and no.

So on one hand, yeah, you can take all the books
that have ever printed and put them on a memory card
so small that you might have a hard time
finding it in your pocket,
but that doesn't mean that a computer

necessarily understands what's there
just because it can store it
and kind of regurgitate it back to you, right?
And I think the truth is, despite the whole hype,
that artificial intelligence is still mostly pretty dumb
today compared to humans or even cats and dogs,
but that doesn't mean it's gonna remain that way.
I think a lot of people make the huge mistake
of thinking just because AI is kind of dumb today,
it's always gonna be that way.
Right, well, shouldn't we keep it dumb
because if we let it get too smart, et cetera,
what is that threshold, the point of no return?
Yeah, because remember that thing about Facebook
where they started, I don't know if this is true,
they started doing AI technology,
they just started talking to each other
and they shut it down, is that true?
Because they were gossiping.
Yeah.
It's true, but I think Hollywood
media often make us worry about the wrong things.
What do you mean, yeah?
First of all,
people often ask me if I,
we should fear AI or be excited about it.
The answer is obviously both, right?
AI is like any technology, it's not evil or good.
If I ask you, what about fire?
How do you feel, are you for it or against it?
What are you gonna say?
Right, it can hurt if you use it incorrectly.
Exactly, and the same thing with all tech.
The only difference is that AI is gonna be
the most powerful technology ever.
Because look, why is it that we humans here
are the most powerful species on this planet?
Fuckin' A.
Is it because we have bigger, yeah, bigger biceps,
sharper teeth than the tigers?
No, it's because we're smarter, right?
So obviously if we make machines
that are way smarter than us,
which is obviously possible,

and most researchers in the field think
it's gonna happen in our lifetime,
then it's either gonna, clearly,
either gonna be the best thing ever,
or the worst thing ever.

Yeah.

My question is, when it's the worst thing ever,
by the time it becomes the worst thing ever,
then we're fucked.

Then it's too late, yeah, you wanna kinda...

So let's not let it be the worst thing ever.

So that's the catch though, right?

We humans have had to play this game over and over again
with where technology got more powerful,
and we were trying to win this race,
making sure the wisdom with which you manage the tech
keeps pace with the power of the tech,
we always use the same strategy, learn from mistakes.

But it seems like the big safeguard
that we have as humans,
that we don't yet have with machines,
is that we have ethics, we have empathy,
we have emotion, and what is the computer program
that you would need to put together
to inject that into this new machine
with all of this information?

Can we put some snuggles in it?

Yeah.

That's a fantastic question.

What's the snuggle recipe?

So you're hitting exactly my wish list.

If you wanna have ever more powerful AI
that's actually beneficial for humanity, right?

So you can be excited, right on the horrified about the future.

There are three things you're gonna need.

First, you're gonna want to need the AI
to understand our human goals,
and then get it to actually adopt the goals,
and then to actually keep those goals as they get smarter.
And if you think about it for a little longer,
each of these are like really hard.

So suppose you have a,
you tell your future self-driving car
to take you to Logan Airport as fast as possible,

and then you get there covered in vomit
and chased by helicopters,
and you're like, no, no, no, no, that's not what I meant.
And the car goes like, that's exactly what you asked for.
You know, it's clearly lack of something.
See, they do talk like that.
Literally, literally, are you, he's the terminator.
He sounds like the terminator,
and he's talking about terminator stuff.
So we humans have so much more background knowledge, right?
That a machine doesn't,
because it's like a very alien species of a sort.
So that's hard for starters.
And then suppose you can get that right.
But let me stop you there.
Is there any chance of getting that right?
In other words, the formula, the equation,
that equals emotion, responsibility, ethics,
can you even create a computer equation for that?
I think right now, we don't know how to do it.
It's probably possible.
We were not working enough on it yet.
The catch is, though, computers are just like,
you know, if you think of a baby that's six months old,
you're not gonna explain the fine details of ethics to them,
because you can't quite get it yet.
By the time they're a teenager,
they're not gonna listen to you anymore.
Those of you who have kids out there, right?
So, but you have a window with human children,
while when they're small enough to get it,
and maybe still malleable enough to hopefully pay attention.
That's fascinating.
With computers, though, they might blow through that so quickly.
That window.
It makes it harder.
Did you see Ex Machina?
Did anybody see Ex Machina?
I did.
That's amazing.
That's amazing.
Let's give it up for Ex Machina.
No, no.
What is the most accurate film to science?

Like, is it Howe in 2001 or Ex Machina?
Those are my top two, actually,
because Howe emphasizes this key thing
that the thing you should really fear in advanced AI
is not that it's gonna turn evil,
but that it's gonna just turn really competent
and not have its gold aligned with yours.
That's what happens in Howe, like no spoilers.
Right.
And like that, actually, I mentioned.
60 years in, we're good, but...
But then the other thing you should also worry about is,
even if you can solve all these things,
and I think it might take 30 years to figure this out,
which is where we should start now,
not the night before some folks
on too much Red Bull switch and on.
I mean, I got two cans in me right now.
Not in the can.
Not in my can, but in two years.
Right, the super intelligence away from them.
But the other thing is,
even if you manage to solve those technical problems,
which we should have more research on,
you also have to worry about human society,
because just think for a moment about
your least favorite leader on the planet.
Don't tell me who it is,
so we don't offend anyone in the audience.
Thank you for thinking you're the leader.
Imagine their face for a moment here, okay?
And then imagine they are the one
who controls the first super intelligence
and take control over the whole planet and impose their will.
How does that make you feel?
Yeah, not good.
None of it makes me feel great.
Listen, after a lifetime of doing all this stuff with the run,
how does it feel to talk to an actual robot?
Like, that must feel...
And we will be right back.
Thanks to True Classic for supporting the show.
This is my favorite time of year,
because you've got your beach parties and your barbecues

and hanging at the beach,
and you name it and getting on your bike
and with the kids and outside and everything.
And while I love the warmer weather,
it can be hard to dress for the heat,
especially for us guys who just want
a comfortable t-shirt that fits great.
And that is why I love True Classic,
because they make it easy to look and feel great all summer long
with their perfect fitting shirts, shorts, pants,
all at prices that your wallet will love.
I feel like I'm 53.
I know, hold your amazement.
But I feel like I've spent my entire life
looking for a t-shirt that fits right.
You just want all that,
you want it to fit right through the shoulders,
right through here, right through there,
that it's not too snug,
but it's not to buy all those things.
And it has taken me this long to find it,
and it's thanks to True Classic.
So let's talk about these True Classic t-shirts for a second.
And honestly, I'm not kidding when I say I've been blown away
by how perfectly this fits me.
It's like my new secret weapon, almost.
And it just makes me look super fit
with the way that it hugs my arms and my chest
if I do say so myself.
And just the right amount of room through the body.
So, and even better,
they've got this new summer ready colors
and they come in packs
so you can have a shirt for every day of the week.
So, if you're ready to upgrade your look
and your wardrobe, shop now at trueclassic.com
and save 25% off with the code SMARTLESS.
Look your best, feel your best,
and be your best with True Classic.
SMARTLESS is supported by Netsuite by Oracle.
If your business earns millions
or tens of millions of revenues,
stop what you're doing and take a listen
because Netsuite by Oracle has just rolled out

the best offer we've ever seen.
Netsuite gives you the visibility and control
you need to make better decisions faster.
And for the first time in Netsuite's 25 years
as the number one cloud financial system,
you'll be able to make a lot of money
as the number one cloud financial system.
You can defer payments of a full Netsuite implementation
for six months.
That's no payment and no interest for six months
and you can take advantage
of this special financing offer today.
Netsuite is number one
because they give your business everything you need
in real time, all in one place
to reduce manual process, boost efficiency,
build forecasts, and increase productivity
across every department.
Look, having all of your information in one place
is kind of the name of the game
and that's what Netsuite has.
More than 36,000 companies
have already upgraded to Netsuite,
gaining visibility and control
over the financials, inventory, HR, e-commerce, and more.
If you've been sizing Netsuite up to make the switch,
then you know this deal is unprecedented.
No interest, no payments.
Take advantage of the special financing offer
at [Netsuite.com slash smartlist](https://netsuite.com/smartlist),
[Netsuite.com slash smartlist](https://netsuite.com/smartlist)
to get the visibility and control you need
to weather any storm.
[Netsuite.com slash smartlist](https://netsuite.com/smartlist).
Hey listeners, you need to know
that Wondery's shocking true crime podcast
over My Dead Body is back
for a fourth season, Gone Hunting.
This newest season covers the story of Mike Williams.
It was Mike's sixth wedding anniversary
when he set off on a hunting trip
into the gator infested swamps of North Florida.
He figured he'd be back in time
to take his wife Denise out to celebrate,

but he never came back.
Friends and loved ones feared he met his fate
through bad luck and a group of hungry alligators,
leaving his young family behind.
Except that's not what happened at all.
And after 17 years, a kidnapping
and the uncovering of a secret love triangle,
the truth would finally be revealed.
Enjoy Over My Dead Body, Gone Hunting on the Wondery app
or wherever you get your podcasts.
You can listen to Over My Dead Body early
and add free on Wondery Plus.
Get started with your free trial at [wondery.com slash plus](https://wondery.com/slash/plus).
And now back to the show.
So is there, do people have proprietary right
over certain stuff or does one country control a lot?
Like who's leading?
China's leading the AI, are they not?
The U.S. and China are both very strong.
I mean, most research suggests
that it's U.S. is still kind of ahead,
but there's a lot of hype around.
Both countries, of course, try to...
If anybody's serving in the USA, I'm gonna lose it.
And I'll bet when they say the USA,
they're talking about MIT
and they're probably talking about him.
Well, you know how it goes.
Both countries are trying to claim that the...
Both countries, researchers are trying to claim
that the other one has the heads,
which you get more funding.
That's how we researchers always do it.
I got it.
But seriously, the interesting key here, I think,
is ultimately it's not really gonna matter
which country gets it first.
It's gonna matter most.
Is it gonna be us who control the machines
or are they who control us?
But it really is.
It's all joking aside.
I'm obsessed with the Terminator movies
and anything sci-fi.

Yeah, all joking aside.
Yeah, joking aside.
Yeah, let's put the jokes aside
and let's talk about it.
No, but that's kind of the idea
behind a lot of Hollywood movies and stuff.
Is that what if the AI has become more intelligent
than the human?
But here's the thing.
I saw something on 60 Minutes years ago
which fascinates me to this day
and I'm not gonna get this right,
but it's some guy with Andy Rooney's eyebrows.
That's it.
No, so, so I'm gonna be right back.
You ever wonder why?
You ever wonder why?
I opened my own desk drawer
and I got a tie from the 1968 Democratic Convention.
It's got soup on it.
I don't like soup.
I don't know.
Nobody knows who Andy Rooney is, does it?
I don't know.
Yeah.
It's also your, it's also his Dax Shepard impression.
But anyway.
I know it's true.
So.
So there is this guy, the interviewer was interviewing
the scientist who claimed to have come up with this idea.
This thing was like wrapped around his ear
and it was like tied to his side of his head.
And the interviewer was asking him a question,
like what's the population of Utah?
And all he had to do was think of the answer
and it popped up on the screen.
Do you know what I'm talking about?
This kind, yeah, well this sort of stuff
you can already do if you have a connection to Google.
Oh yeah.
Ergo, you saw it 15 fucking years ago.
What are you talking about?
No, no.

Sean.

No, but, no, but that you, can you hear me?

No, that you can, if you think of a response.

He got it.

Okay.

He heard you.

Answered it.

Let me move on to another question.

Something current.

So, you know, we were talking earlier about,
we're gonna kiss it out later.

What do you mean when you read out people's brainwaves?

Well, I found it fascinating.

I saw the segment where the guy was thinking an answer
and it popped up on the screen.

Again, I go, the third time is really clear.

Hey, Sean, your best robot voice, go, quick.

He's gonna sing Katy Perry.

Watch.

Do you want to play a game of war?

No.

Do you want to play six-tacto?

Another 15-year-old robot voice.

Do you want to play a game?

That's it.

He's seeing himself up.

This is the voice-over artist here.

Let's have it.

Do you want to play a game?

Okay, no matter how I say it, it's just the gayest
computer ever.

I'm sorry, Dave.

I tried to do that.

Do you want to play a game?

Like, yeah.

Okay, I'm sorry.

And what's your best computer voice?

I'm sorry, Dave.

I tried to do that.

I just love that house scene again.

It is great.

Because it points out what you really should worry about.

But coming back to, there are two things.

One, again, summarize why you need to make sure

the machines can actually align their goals with ours.
Yeah.

Because if you have something much smarter than us
that has other goals, we're screwed.

It's like playing chess today against the computer
that has a goal to win when you have, it's no fun.

What's the next, because when somebody says AI,
all I picture are those mechanical dogs that walk around.
And they don't really do anything.

They're just like, oh, look, we invented a robot dog
and it doesn't really do anything.

So I want to know, like, what's the next thing
that we can use that's like...

Is it mechanical cats?

Mechanical cats?

Yeah, you know what I mean?

Imagine the mechanical cats doing cats.

Oh, my God, that would be amazing.

Sorry, we'll get back to you.

You're saying what's the next thing
we can look forward to enjoying out of science?

Yeah, like in the pop sense.

Okay, in the pop sense.

So first of all, so just to finish off,
what are we talking about?

You know, Hollywood, it makes us associate
AI so much with robots and the Boston Dynamics dogs.

You should check them dancing, by the way, if you haven't.

Dancing dogs?

The Dancing Boston Dynamics robots.

Super cool.

But the biggest impact right now
AI is having is actually not robots at all.

It's just software, right?

I mentioned this, improvethenews.org project we're doing,
which is just a little academic thing,

but if you think about social media, that's all about AI.

One of the reasons people hate each other so much more
in America now is the effect of AI.

Not AI that had the goal of making people evil,
but just had the goal of making people
watch as many ads as possible.

But the AI was so smart,
figuring out how to manipulate people into watching ads

that it realized that the best way to do it
is to make them really angry
and keep showing them more and more extreme stuff
until they were so angry they wouldn't just fragment
and fill them up.

And if you get really, really pissed off,
you then research that thing even more
and then you get more ads and all that stuff.
Boom.

So that's one, all of social media, media.
Another one is, let's talk about some positive things
because AI, intelligence, right?
It's human intelligence that's given us everything
we like about civilization.

So clearly, if we can amplify it with artificial intelligence,
we can use it to solve all sorts of problems
we're stumped on now like cancer
and lifting everybody out of poverty and so on.
Will there ever be a...

Go ahead, sorry.

So I was just going to say,
another pure software thing that has nothing to do with bots
is use AI for doing better science,
better medical research, for example.

I was just going to ask about that.

So is there any...

I read a long time ago about...

You know, like you put a locator chip in your dog
or your cat, whatever.

I heard that they might be making a chip
with all your medical files and you put it under your skin
so you can just scan it
because filling out all those fucking forms
over and over, it's like...

I just filled out the form
and now you're asking me the questions all over again.

Read the thing, I just spent 20 minutes on it.

Stop talking to the doctor once a week.

I'm dying.

What?

Right, I'm like, what?

I was like, what's your name?

I just filled three forms out that says what my name is.

I think I'm personally going to pass on that chip implant

and just ask the hospital to have a less stone age computer system.

But seriously, of course...

Did you hear about Sean showing up to doctor's appointments late so that he doesn't have to wait?

It's riveting.

I don't know if that's AI or whatever.

Something huge that happened this year, for example, is biologists have spent 50 years trying to figure out just from the DNA

how the shape is going to turn out to be of different proteins that our bodies make.

It's called a protein folding problem.

And then Google DeepMind solved it.

No way.

Yeah, with an AI.

And now you can develop medicines faster.

So this is a fantastic example, I think, of AI for good.

Another one...

But then the robots that are probably going to have the biggest effect, I think, on us and the job market the next five years are probably cars, actually, just autonomous vehicles.

That's pretty cool.

I'm worried about everybody with their cars and automatic driving or whatever,

and then they show up and then people are just going to show up at the valet dead in their car.

And really, you know what I mean?

People are going to get in their car

and then they're going to be like, the pizza guy shows up and he's like slumped over.

They'll open the door.

Yeah, just out.

You know what I mean?

That's what I'm worried about.

Now, with the combination of what you know about computers, what you know about space,

what you know about intelligence,

I know, I know what you want to know.

Sean wants to know,

he wants to know if there's aliens, but we're not going to ask him that.

What I want to know from you is,

based on your knowledge of all those areas, does it seem possible to you

that there is the requisite amount of intelligence and technology
at a place other than Earth?
Ooh, see, he asks,
is a different way than I would.
Well, of course it's possible,
although my guess,
based on spending a lot of years dealing with telescopes
and thinking about these things,
is that when we, for the first time,
get a way more advanced technological intelligence
showing up on this planet,
it's probably going to be in our lifetime,
and it's probably not going to come from outer space.
It's going to be something we built.
What do you mean? What do you mean?
So you're saying that we're building something to bring them here?
No, I mean, we're basically...
The goal of artificial intelligence has always been
to build stuff that's way smarter than us.
They just don't have cars they need to get here.
And they're all going to be dead when they get here.
No, wait, keep going.
If you basically build a new species, a new life form,
that's way, way smarter than us, right?
That's alien.
That's alien. It's incredibly alien.
It's much more different from a chipmunk or a tiger,
in that it really has nothing in common with our evolutionary history,
and doesn't necessarily care even about food
or reproducing itself.
So if we do that,
it's going to be just as big an event on Earth as if aliens show up,
and that's why I'm kind of weirded out
that people talk so little bit about it.
That's what I'm saying.
That's what I'm saying.
As despicable as human...
Human beings were all, including me, everybody,
were just so despicable that if the announcement came
that, like, oh, my God, there are aliens,
they're visiting our planet, people would be like,
oh, okay, I got to check my Instagram.
Like, I don't think people would be, like, giving shit.
Based on that, it seems to me that what you would want to do

is make sure that somehow built in all this stuff
is some kind of a kill switch,
and that the wise men who are...
And women.
You know what I mean, but like a group, right,
probably made up of you and your other colleagues,
male or female from around the world that are the leading scientists
in this area would get together
on some encrypted platform and say,
let's make sure we, only us five,
know about this one thing that we could press
to shut all these AI robots down
that we've created on our planet.
I won't tell anybody.
I won't tell anybody.
All four kill switches.
That's what I do.
I know you would.
This sounds a little too elitist for me
because the idea that somehow, you know,
you guys have the dudes who are like, know a lot about AI,
should decide humanity's future.
I want it in your hands.
But that's how it is now, you know.
If the rest of us, everybody doesn't get engaged in these things,
who's going to make all these decisions?
It's going to be probably a bunch of dudes
in some back room or some who have not been elected.
Are people who are super AI nerds,
like specialists in human happiness?
Only they would know the ramifications of something
getting in the wrong hands.
But are they the ones who should be deciding
what makes you do that?
Of course, not some elected weirdo.
Yeah.
Look what happens.
I don't trust particularly elected people,
but I also don't trust tech nerds
with being experts in psychology and what...
Then who can we trust?
Then we got to shut it down.
Us, everybody.
Can't trust it to the nerds?

What are you talking about?

You should all talk about it.

Let me ask you guys.

Suppose you have a magic wand that you can wave, okay,

and create this future 35 years from now,

when there is this very advanced AI,

and you get to decide how the planet is organized,

what it's used for, and what it's not used for.

So it's not going to be your standard dystopian Hollywood flick.

What is this future like?

What do you want it to be like?

Well, that makes me want to take a nap.

Well, you would...

Yes, and what do you want it to be like?

I would want all the technological advances

that we have to go to the bettering of the living experience,

which means health and kindness and all that stuff.

You know, you point it all in that direction,

and then good decisions come from that?

I don't know.

Yes.

Brave New World.

Well, that sounds great.

A frighteningly tepid response.

Let's compare that with what we're mostly spending

the AI money on now, right?

This amount of money is spent on advertising,

which ends up making teenage girls anorexic.

And then we have a massive amount of enormous amount of money

now building robots to kill people for the first time

when they were used in Libya last year.

They hunted down these fleeing people and just killed them

because the robots decided that they were probably bad guys.

And I think...

I did not know about that.

It's a...

I don't know.

Did you guys all know about that?

About the robots that hunted the people down?

I didn't gloss over that.

What happened?

This is the shit that I'm talking about, man.

It actually has some dark comedic value, I think.

Yeah, it sounds hilarious.

The current policy, actually, of the U.S. government on killer robots and slaughterbots is... Slaughterbots.

Three things.

First of all, the U.S. says... That's like murder hornets.

First of all, we're saying this is nasty stuff. We don't ever want to delegate kill decisions to the machine, so we're not going to do it.

Second, it's going to have a decisive impact on the battlefield.

And third, we're going to reserve the rights for all other countries to build them and export them to whoever they want.

So this was this Turkish company decided to sell them to Libya against the arms embargo, and that's why they hunted these people down.

We went in a really short span.

We went from replicating a sheep to slaughterbots.

It seems like that happened really quickly.

We were talking to a guest earlier today about time travel.

So it's on our minds.

And we do have to ask you, like we did before, did you time travel here?

I did.

Is there any chance, and I won't bore you with the same question that I asked that astronomer that we had about the mirrors?

Neil deGrasse Tyson.

It was a real highlight.

I'm going to try here.

Wait, Will said Neil deGrasse Tyson was on, and Jason asked a really long question about time travel, and Will said, hey, do you think we could put enough mirrors to travel back in time to the beginning of Jason's question?

And it's a ballad.

It's hard for me.

It's a ballad.

So the light we get from the sun has been traveling seven minutes.

Eight minutes.

Eight minutes.

So we're basically feeling something that's eight minutes old.

We're back on it.

That's right.

So isn't there a way to have a mirror that creates anyway?

Yes, actually there is.

He says yes.

He likes my thinking.
Make sure you built one for us, actually.
In the middle of our galaxy, there's this monster black hole
that weighs about four million times as much as the sun,
and it's black.
Oh, that's mine.
No, it's a black hole.
And if you look at it really carefully,
light that went from you actually was bent by its gravity
so much that it comes back on the other side of the black hole,
like a mirror.
So if you look with a really good telescope,
in principle, you could see your own reflection
except so long ago that you weren't born yet.
Are you serious?
And now, a word from our sponsor.
It is every parent's nightmare unfolding in South Jersey.
The search is on for an 11-year-old Cape May County boy
missing since yesterday afternoon.
So far, searchers have found only his left sneaker near his home.
It's hard to imagine losing a loved one,
a wife, a husband, a child.
For many, it's their biggest fear.
Amrissa Jones, host of The Vanished,
a podcast that tells the stories of often overlooked
and unsolved missing persons' cases.
Every week, I dive into a new case,
sharing the details of their mysterious disappearance,
including interviews with family, friends,
law enforcement, and even suspects
in an effort to reveal the truth.
And I'm proud to say that this podcast
has aided in a number of arrests.
It's important to me to remember the human behind the headline
and help family members find their vanished loved one,
or at least a sense of peace.
Follow The Vanished wherever you get your podcasts.
You can listen ad-free on Amazon Music or the Wondery app.
And now, back to the show.
Wait, so talk, go.
So that's basically time trial.
In other words, these telescopes, like the one we just launched off,
they're looking so far back,
they might actually see the Big Bang at some point

or something.

We're seeing the galaxy at an earlier stage than us.

So eventually, if you get a telescope strong enough,
you could see the start of Earth, potentially.

It all came out of the Big Bang.

We all took mushrooms before.

Yeah, and we were so interested.

Somewhere in there is there an answer about the possibility of time travel.

Yeah, so this is a kind of see-but-not-touch time travel.

The sky is a time machine, just like that.

You know, you see me three nanoseconds ago.

You see the sun eight minutes ago.

You see stars at night, if it's clear.

So long ago, the people over there looking at us
would see maybe the Boston Tea Party.

And we can see things that happened over 13 billion years ago.

But you can also travel forward in time for real.

No bullshit, real time travel.

You go to this black hole here.

I was told, actually, when I moved to the U.S.

that in America, possession is 95% of the law.

Is that true?

You know what, now it's yours.

So anyway, if you just orbit around this black hole really close,
which you can actually do, I give this as a homework problem to my MIT students,
then your time will actually slow down so much that if you're on Skype with you,
you'll be hearing him go like,

Hello, I'm here.

And then you're going to hear him say,

Oh my God, I'm so worried about what's going on there.

Well, that's accurate.

Because your times are actually running at different rates.

And then when you come back, you look so good, so youthful.

Because you're actually younger than you would have been otherwise.

So are we going to be alive when we start to see any of this stuff
that's going to really blow our minds?

Yeah, and Mars, are we living on Mars? Go.

So this is the upside of artificial intelligence.

Throw that into this.

That's not a follow-up, it's a different subject.

By the way you mentioned before, Boston Tea Party, too soon, good.

This is the upside of artificial intelligence.

It's just for us, too soon, huh?

This is the upside of artificial intelligence.

Either we can use it to go extinct in our lifetime,
or we can use it to bring all these awesome things about in our lifetime.
We used to think, oh, this is going to take 10,000 years to get like the sci-fi novels,
because we humans have to figure out all the tech ourselves.
No, if we can build this incredibly advanced AI,
which can then build more advanced AI, et cetera, et cetera,
we might be able to build this tech, you know, 30, 40 years from now.
And suddenly we're not limited by our own pace of developing tech.
We just go, boom, and we're limited by the laws of physics.
Well, and by the laws of ethics, like if, just because we can, should we?
Like, how do we know when we, as a society, are mature enough
to handle some of the technology that we can access?
I think going and having some fun, joy-riding around black holes is ethically okay.
It's my inner nerd speaking here.
As long as you don't force other people to go with you.
But on the other hand...
Don't be a nerd, we're just going to the black hole.
Like, we're not forcing, but it is peer pressure.
That's one of the questions that they asked in Jurassic Park was just...
Oh, good Jurassic Park, good.
Yes, I'm in.
Keep on the science.
Just because you can create this island with these dinosaurs, should you?
Now, based on the science of that, the amber that was frozen in there
with the DNA of the dinosaurs, is that real?
Is that real?
Well, now, you know, we have my friend George Church down in Harvard here.
He's talking about already bringing back the mammoth
by just taking the DNA together, assembling an error-correcting executor,
then basically DNA printing out the mammoth DNA, and boom, mammoth.
We can do a lot of these things.
Leaving...
We can come back to the ethical questions.
Who's stopping him, exactly?
Who's...
What's the...
Me, what's his name again?
George Church?
Can you put him on the show?
What's the council that's going to say yes or no?
Let me just say a bigger thing first, though.
Just to get the controversies out of the way, you know.
I think we humans, to really get the ethical decisions right
and let people forfeit some dumb stuff,

we have to remember how much upside there is also.
We're living on this little spinning ball in space
with almost eight billion people on it,
and we've been spending so many years killing each other
over a little bit more sand here and a little bit more forest there.
We're in this huge universe, right?
We thought was off limits.
Well, with AI, it could be on limits again.
We could go to the Alpha Centauri system in a lifetime.
We could have a future where life is flourishing in our galaxy
and in our other galaxies,
where there's just such an amazing abundance
that people are going to be wondering,
like, why did these guys futz around for so many years
on this little planet and fight squabble about breadcrumbs
instead of going out here?
Most of this universe, despite all the Star Trek episodes out there,
no offense, so far really don't seem to have woken up
and come alive in any major way.
I feel that we humans have a moral responsibility
to see if we can help life.
Our universe wake up some more and help life spread.
But what if we run out of time with our use on this planet
because of environment where we don't...
I'm reading your mind.
Yeah, we're getting to Mars.
So can we point the AI to our challenges here
regarding the environment, fix that real quick,
and then we can explore everywhere else?
I think we need to fix things here in parallel.
The reason that rainforest is partly gone,
the reason we're messing up our climate and so many other things
isn't because we didn't know 10 years ago what to do about it.
It's because we kind of already built another kind of AI.
These very powerful systems, corporations, governments, et cetera,
that have goals that aren't so aligned with the rainforest
and maybe the overall goals of...
If we can use the AI to tell them how they can make more profit
doing things that don't kill the Earth,
then they'll stop chopping down the forest.
Well, maybe we should take a bigger step back, you know.
The whole point of having a...
You've got stock in Exxon, don't you?
He's not comfortable answering this.

My undergrad was in economics, so I'm very sympathetic to this free market. You're doing things more efficient.

The whole point of the free market is that you should get done efficiently things that you want to get done, and then you should have, of course, some guidelines.

That's why we decided to ban child labor in the U.S.

That's why we decided to invent the weekend.

Wait, you don't like the weekend?

I think you should have changed.

But right now, if you create something, whether it be a super powerful dictatorship or it beats a tobacco company that tries to convince you that cancer smoking isn't dangerous or whatever, it has its own goals and it's going to act.

It's good to think of these things a little bit like in AI, even though it's not made out of robots, it's made of people, because there's no person in a tobacco company who can single-handedly change its goals.

If the CEO decides to stop selling cigarettes, he's just going to get fired.

We should start thinking about how do we just align the incentives of all the companies?

I want to keep private companies, incentives of people, incentives of companies, incentives of politicians, with the incentives of humanity itself, to get what you were asking for, as a society in the future.

The change is more cultural rather than scientific, if you will.

Yeah, although you do need to geek out a lot about the whole business with incentives.

Like, why did we invent the legal system in the US?

Well, because we realize it's not so smart that people always kill each other every time they get into a squabble about a hot dog, right?

Right, create consequences.

So you change consequences and now they'll think twice and they'll just punch each other instead or settle it in some other way.

Alignment is kind of the big slogan a lot of us nerds have for this.

You want to align the incentives, not just the machines, but also the organizations with what's actually good for humanity.

And we're in this unfortunate situation now where whenever an entity gets too powerful, it doesn't have to be a machine or a dictator, it could even be a company, that they start to now like take over whoever was supposed to regulate them

and turn them into like your rubber staff.

Now they're suddenly not going to be so aligned with what's good for America anymore, or good for humanity.

And this problem, we cannot wait for AI to solve it.

We have to start solving that in the meantime.

Amen.

But you know, that's been the modus operandi up till now

and we're running out of time and people are taking their profits

because they figured they're going to be dead before the ramifications of it really...

So I think the computers have to help us out.

Yes, absolutely.

So this is why I'm so into this AI empowerment thing,

why I want to think about how can we use AI

and put it into the hands of people

so that they can very easily like catch other powerful entities

that are trying to screw them over.

And it's a way of using technology to strengthen democracy.

Are we going to live on the moon at all?

You want to?

Yeah.

Is that possible?

Are we planning on that?

Would you want to?

Can you believe that?

Do you want to?

Yeah, I would.

I would totally live there.

All of these things are certainly possible.

I was very much of the opinion that it's easier to make

and really comfortable and pleasant life on this planet.

So I would also like to make sure we don't ruin it.

Is there one project that you're working on right now,

just one that you feel extremely passionate about right now

that you could share with us?

It's actually improvethenews.org, this thing I mentioned earlier.

It's called improvenews.org.

Improvethenews.org.

It's just this free little news aggregator,

but it's all powered by machine learning

so that's why it can actually read 5,000 news articles every day,

which I can.

I'm so turned that out.

And then what we're doing is, instead of just saying,

okay, today we have a lot of news sites,

you can go there and read about all the good things
that Democrats have done
and all the bad things Republicans have done.
And then there are other ones where you can read about
all the great things that Republicans have done
and how the bad things Democrats have done.
With this one, the AI figures out which articles
are about the same story.
Maybe it finds now 62 things about the new
U.S. National Death Passing 30 trillion or whatever.
And then it's like, okay, then you can come in and say,
okay, here are the facts that all the articles agree on.
Boom, boom, boom.
If you're a fact kind of guy, you can now click away
and go to the next story.
But if you want to know also all the narratives,
it separates out.
Here is what this narrative, that narrative.
Does it have photos?
Would it have a photo of Will last January 6th?
You mean in the Capitol on that?
No way.
With the goggles and the thing?
There's no way you're getting that photo.
How much will you pay me again?
What's best word'll score?
Go.
And be careful.
He got an unbeatable score today.
Got it in two, this guy.
Not bad.
Not bad.
That sounds amazing.
But it's so exciting.
Also just all the emails you get from people.
Because I think, again, bits are free.
You can give them away to the world.
And AI sounds fancy, but it's just code.
Well, listen, I want you with a fresh mind tomorrow
when you get back at it.
So I don't want you to stay up later anymore today.
Thank you for joining us.
Do you guys feel a little smarter?
Yes.

A little bit smarter.
I feel smarter.
I definitely do.
Please say thank you to Max.
Thank you, Max.
Thank you.
Thank you very, very much, buddy.
Here, pal.
Thank you very much.
Wow.
Max.
Thank you, Max.
Now, here's the thing.
Here's the thing.
I, go ahead.
How much dumber do you think you are than him?
Like on like an IQ score,
what do you think his score is versus yours?
He reminded me how much smarter I am than you,
which was great.
That's fair.
Like, actually, I feel very buoyed by that whole experience.
Do you think it's double his intelligence?
Double your, oh, his, over mine?
Over mine.
Oh, easily.
No, no, no, no.
I mean, he's just, he has a very big brain.
I could talk to him for hours.
I don't know that he would listen to me
for more than five minutes,
but I could talk to him for hours.
Yeah.
I love all his fantastic guests.
Yeah.
Like, right up my alley.
Right up my alley.
Very cool.
And, and, I think that if, I think that if we all spent
more time thinking about that kind of stuff,
just a little bit,
then maybe we could get around to solving some big issues
tonight.
Let's solve it tonight, guys.

Everybody, huddle up.

Yeah.

That was so cool.

Thank you.

I know you, we all kind of share,

we love all of our guests.

Those are nice pops because there's stuff
that we don't usually cover on the podcast,
and I've just repeated myself,
but I just love that stuff.

I could ask him a million more questions.

Well, it's the original conceit of this thing,

Ergo the title.

We thought we'd, you know, bring people on that can
educate us a little bit more on things that we don't know
about.

We happen to get lazy and ask some of our famous
fancy friends to come on.

This is a real treat to be able to access these,
you know, big, big thinkers in this incredible town.

Yeah.

So, thanks for having us.

And now, like, it's sort of, it's incumbent upon us to
really kind of do something about it.

We can't sit around all day in our pajamas,
you know, and in our slippers, you know what I mean?

Or then just go to the golf course and then get in
our Teslas.

We have to.

Right?

Don't you think, don't you think that's important for,
and I'm not, I don't want to single anybody else.

I will never be one of those people.

The ruining things.

But, but no, it is true that thank you for,
you've educated us a little bit more.

It's pretty, pretty bad.

Yeah.

And I think, you know, I could talk to him,

I want to talk about the web telescope because,
you know, those kinds of things.

Oh God, here comes a bye everybody.

Get you feel it when he starts to ramp up the engine.

No.

Sean, if you don't lay in it, you can't do it.

No.

You just got to get into it more subtly.

Well, I'm just saying, I'm just saying,
like, telescope like that is much better than any,
you know, thing like this.

What are these called?

Oh, those are.

Are you kidding?

Bye.

Bye.

Bye.

Bye.

Thank you, Boston.

Thank you so much.

Smart.

Blas.

Smart.

Blas.

SmartLess is 100% organic and artisanly handcrafted by
Michael Grant Terry, Rob Armjalf, and Bennett Barbico.

Smart.

Blas.