I'm Ezra Klein. This is The Ezra Klein Show.
A core focus of the show this year is going to be attention,
but not your attention, not my attention.
Not attention as a capacity of the individual,
where we give you hacks to grayscale your iPhone
or meditate in the morning or eat better food.
Our attention.
Attention seen as a collective resource, as a public good.
Attention is, in total, the depth of thought and consideration
a society can bring to bear on itself.
Its problems, its opportunities,
everything from how to find economic prosperity,
to solving climate change, to strengthening our democracy,
or for that matter, doing the reverse of any of those things,
all of it depends on our capacity to pay attention,
on the quality of the attention we pay,
and on the condition we're in when we pay attention.
But like any collective resource, attention,
it can be polluted, it can be exhausted.
And I think to a large extent it has been.
And to see how and why,
we have to get really deep into the business of attention.
So today's episode is part of that inquiry.
Kim Huang was director of Harvard, MIT,
Ethics and Governance of AI Initiative.
He was a global public policy lead for AI Google.
He's currently the general counsel at Substack.
And for our purposes, most importantly,
he's the author of this weird, fascinating book
called Subprime Attention Crisis,
which is a really good explanation
of the business model responsible
for our collective attention today.
I always worry when approaching this topic
that it is a problem of something we all think we know about.
We see the banner ads,
we know we're tracked across the internet.
We're familiar with this.
But we're really not.
The scale of it, the technology that really underpins
the pervasiveness and centrality of this business model
to almost all of the information and entertainment
we now consume,

the way it is something completely different
than it used to be.
When you get into the technical underpinnings
of our whole attention economy,
it's almost wondrous.
It will really make you, makes me step back and marvel.
But our attention here isn't just being bought and sold.
It's being used and changed.
And really tracking the plumbing of this economy
is where we have to start to see how.
And so I asked Huang on the show to talk me through it more.
As always, my email is reclinedshowatnytimes.com.
Tim Huang, welcome to the show.
Ezra, thanks for having me on.
So the argument at the heart of the book
is that the internet as we know it
flows out of its business model.
So what is that business model?
Yeah, absolutely.
So the book Subprime Attention Crisis
is really about advertising on the internet,
which over the last few decades has become
the sort of primary funding model for everybody,
everything from the biggest platform companies
to kind of like the smallest sort of publishers
and websites on the internet.
And it's specifically about a very particular kind of advertising
which is known as programmatic advertising,
which is sort of the use of algorithms
to buy and sell attention online.
And something that you talked through in the book
that I've heard you talk about,
and that I think people know,
but when you hear this really remarkable,
is just how central this is.
Go through a bit of how much advertising supports
the things that we use on the internet every day.
Yeah, so the fascinating thing about advertising
is that it is really kind of embedded
in kind of our experience online.
The very fact that you get to use a lot of services
for free on the internet is really powered by the fact
that they are funded through advertising.

So you log onto Google, you use the Google search engine.
The reason it's free, of course, is advertising.
And it's not just that it's kind of free online,
but that these companies are like extremely dependent
on this ecosystem of advertising as well.
So we're talking sort of hundreds of billions of dollars
worldwide flow in and out of the online
programmatic advertising marketplace.
And for both Google and Facebook,
to take two examples, we're talking about companies
that have over 80% of their revenue
coming from these advertising sources.
And so what's interesting about it is that it is not
kind of only something that sort of like influences
our present day experience of the web,
but kind of continues to sort of shape
like why things are designed on the internet the way they are.
So one of the examples that I always give
is thinking about the like button on social media.
Like why do you even have a like button at all?
Well, one of the reasons is that it makes
engagement quote unquote with content a lot more measurable
and therefore a lot better for buying and selling
and serving ads.
And so, you know, almost kind of like from the smallest
sort of aspect of the web to like the biggest economics
of the web.
It's sort of all shaped by this kind of core ecosystem.
This gets to an interesting question.
I had reading the book though, which is which comes first,
the design of the internet or what advertising needs
for the internet.
So I think classically the way we understand these
platforms is that we have this sort of weird model
that emerged online where you get attention
by any means you can and you can run at a loss
as long as you're getting attention for a very long time
because venture capital firms and other kinds
of financial investors will support you
so long as they can tell, they can see measurably
that you're commanding people's attention.
And then eventually you have to figure out
how to make what you're doing legible for advertisers, right?

You figure out search auctions at Google
and you figure out different kinds of personalization
at Facebook and whatever it might be.
But it's not so much that we built the internet
for advertising as it would be very clever
about figuring out how to make advertising fit
onto the internet we've built.
But you see it more the first way that we build the internet
to make it legible to the advertisers.
So kind of make that case for me.
Sure, definitely.
And yeah, I think that these are a bunch of debates
and it's of course really hard to replay the tape of history
to say like, oh, if we just ran the internet again,
do we end up with an internet that is largely based
on advertising and I think there's some people
who'd make the argument that that's the case, right?
That we're just like, history is unfolding
and we're discovering that it's powered
through advertising essentially.
I'm a little bit skeptical of that position
because I think that there's kind of a deep path dependence
in the sort of funding of online platform companies, right?
That I think that the fact that you had Google, right,
which was this company that was this,
frankly this kind of like lab experiment, right?
That came out of Stanford and was this huge, huge loss leader
for such a long time.
VCs kept pouring more money into it
and there's just lots and lots of users coming in
but no real way of making money.
And then at some point they figure out the ad marketplace
and obviously Google becomes one of the most valuable
companies in the world.
It's almost, I think, that dream that almost kind of gives
sort of momentum to this business model, right,
in two respects.
I think one of them is that investors are willing
to give these companies the benefit of the doubt, right?
Like if you're able to aggregate a lot of attention online,
we just have this almost religious faith that like there's
just some way that you got to be able to turn this into money,
right?

You will become a Google, you will become a Facebook.
And what that allows is I think is like these companies
to kind of like continue going on for much longer
than they would otherwise, right?
So I think one of them is like that the anchor of Google
and Facebook have given sort of room for a lot more advertising
sort of companies to emerge.
I think the second one too is that there's kind of like the flip
side of that, right?
Which is basically that if you come to a VC and you say,
I want to do a subscription business model,
well, they'll say, well, I don't know.
We don't have a whole lot of examples of that like really
blowing up.
So, you know, why don't you just do advertising?
And I think that also has another effect, right?
Which is that you basically don't have sort of funding going
to sort of true experimentation with lots and lots and lots
of different alternatives that might kind of build the internet
in a really different way.
I think the only final thing I'll note here is that what I use
always as kind of a marker for how kind of unplanned it was
that advertising ended up becoming the business model of the web
was actually to look at Google.
And what's fascinating there is that they were basically like,
okay, we'll have advertising, but it'll constitute 10%,
maybe 15% of our revenue.
Most of it's going to come from licensing our search algorithm,
right?
Which is like, obviously not the case.
But I think it's clear to me, at least from the historical record
that like there are lots of different models,
business models at play.
I think the debate ends up being just like,
do you think the incentives inevitably push us towards that?
But I feel it's kind of a failure of imagination
in some respects.
The collapse into advertising as so often the chosen business model
is it's really widespread.
So I think about basically what are the different industries
that make up our informational comments, right?
Give us the information we use to talk to and to
debate with each other and know about the world.

And I've worked in a bunch of them.
Newspapers, which are heavily advertising supported,
not only but heavily, magazines heavily advertising supported.
If you think about television news, including cable news,
that is heavily advertising supported.
Radio is heavily advertising supported.
Then you go online and you have search advertising supported.
You have social media advertising supported.
Really the only major one that always comes to mind
that is not built on advertising is books.
But almost everything else we use to talk to each other
about the world in which we live
is built on people trying to sell you sugar water.
That's right. I'm arguing a little bit against myself,
but then I'll give the counterpoint.
I think one of my favorite historical examples of this
is the creation of the visual telegraph, right?
Which is basically this like communication network
that was built in France.
And the way it worked was basically like a bunch of these
effectively kind of like windmills with shutters on top
and you'd use them to basically like flag another tower
that was a number of miles away to communicate
across long distances.
And they set up this network in France
and pretty soon afterwards people were like,
you know what this would actually be great for?
It'd be great for advertising basically.
And so it is interesting and I agree with you, right?
Like I do think that there is kind of like a,
the availability of advertising is always there, right?
Because it's always attractive to offer a product for free
and then have it subsidized by a third party, right?
Like I guess I'm not trying to argue that like
that option isn't always there.
But one thing I would point out though,
and this is kind of my counterpoint is
maybe to think a little bit about what makes businesses
viable or not viable.
For me, I think it's wrong to be like,
well, the market will always kind of collapse in
on a particular business model.
Because really what we're talking about is people

and what are people willing to pay for
or not willing to pay for, right?
And I do think that with books,
what we have is a great example.
Like the example that you brought up is that
it's an example in which I think a market
has been sort of trained and that it is actually like,
there's a norm to say, yes,
a book is a thing that I will buy, right?
And even if it's basically just a text file,
I'd be willing to pay X amount of money for it.
And I think that just ends up being a question
of like what people want and what the market
will sustain and our norms around what's worthwhile
or valuable online or not.
And so I think if you buy that thesis,
I do think that there's this kind of interesting
maybe self-reinforcing cycle, right?
Which is that we've lived with all of these
kind of like advertising models that make
content available for free.
It makes it really difficult for you to convince
someone to pay for content because the psychological
cost of content is just zero, right?
And so you almost have to shift cultural norms
to get these business models to work.
I just happened to believe that if there was,
say VC funding, their venture funding to really
push that ahead, we might very well be able
to shift those norms, but I think it's a reasonable
minds can differ on how stuck we are
with that particular way of thinking.
Well, let's put a pin in the question
of VC funding because I do think there's
at least some evidence that this is changing.
But now let me join you in arguing
against myself as beginning to this question.
Sure.
Which is I just gave this quick argument for
continuity, but something you
argue in the book and that I believe
is true, is it digital
advertising is a discontinuous with the

advertising before that the fact
they have the same name actually
obscures how different what is happening
when a magazine
supports itself in print on ads
and that same magazine
moves online and supports itself on digital ads.
So talk about the change
about online advertising as a different kind of
phenomena.
I guess I can give you the
dream and the nightmare maybe is the best way
of thinking about this.
It's true. It looks quite different
from what you'd usually imagine advertising
to be. So you think about advertising,
you think about madmen.
We have people smoking
in an office and they're coming up with
creative to try to sell Pepsi.
And that was the way advertising
worked for the history of print magazines
and print newspapers and kind of older
forms of media.
What we see with programmatic advertising is something
which is a lot more automated,
a lot more data driven, a lot more
scaled than that.
And the way to think about it is Google, Facebook,
these were pioneers in the space and what they needed to do
is not to sell enough advertising
to fill a magazine, they need to sell enough
advertising to sell ads against every
possible search query that someone might have
online. And so they invented the system
programmatic advertising which
in my book and the book kind of verse to it
looks a lot more like the capital markets
that have high frequency trading.
And to give just a quick sketch of it,
the way it looks is when you go online,
you go to a website that's going to serve you an ad.
Essentially what happens is that there's a signal

that basically is put out to a marketplace
saying, hey, we've got Tim, mail 25
to 35 in the East Coast
who's looking at this website, who wants
to advertise to him. And essentially there's
a number of algorithms that operate on behalf
of advertisers
that compete, you know, to basically bid
to deliver the ad to me and depending
on which sort of bidder wins,
they upload that to my website and sort
of into my eyeballs, right? And this happens
billions and billions of times every single day.
And so the dream of this
model was that you could do advertising
at much larger scale, but it also
was a dream that this kind of online
advertising could transcend kind of the
limitations of older advertising, right?
So, you know, it's very data driven,
right? You know exactly who's looking, who can
click on it, you know, it's scalable, you
can get a message out to lots and lots and lots of different people.
So there's sort of a dream that you'd finally
kind of be able to create like sort of advertising
as a science, right? Like that we could measure,
quantify and deliver ads in a way that would
truly kind of finally get rid of the sort of
like kind of touchy-feely
aspects of the industry. And that's the dream
and you know, I ultimately argue that that dream
didn't end up being true, but it was something
that kind of motivated this industry. And I think
frankly, it's been responsible for a lot of ad dollars
moving out of old media to the
web, right? Because of this promise of
measurability and scalability and sort of data.
And one of the
points we're making is that it isn't what is
different about online advertising is not
just the way in which it is
technologically differently
structured than say a newspaper ad,

but that the framing
is financialized in a way that
advertising wasn't before that. So can you talk
a bit about that, the financialization
and what is being financialized? What is
being commodified and chopped up into
into little pieces to be sold on marketplaces
exactly?
Yeah, absolutely. So
I think the good frame to sort of think
about this is in the context of what it means
to set up an advertising
marketplace of this scale, right? So
you know, you imagine like you're running
like your local paper, right? In the 1950s.
You really know
the audience that's going to be likely reading your paper
and the advertiser is
kind of putting ads to like reach that handful
of people. And you know, in some ways
like attention is very heterogeneous,
right? Because like the media markets
are really small. And like in some ways
like the kind of publisher like knows
the reader maybe on like even a person
to person level. Like I know Jim, he comes into the office
and he complains about this all the time.
And you know, programmatic advertising and
contrast is like very, very big, very,
very hands arms length
very, very anonymous.
And you know, effectively what has been
done, what I think of as a form of
financialization is to kind of like commodify
and spread out and like kind
of render all sorts of attention
very much the same, right? So you kind of go
and you say, well, I have a couple of demographics
I'm trying to reach, but like I don't really care
where they come from or where they are
just serve these ads out to the internet.
And so there's an attempt to kind of like
turn it into

a tradeable commodity, right? That like, oh
well this blog versus that blog,
you know, they may differ on a couple characteristics,
right? But so long as I can reach
a person of a certain characteristic, I don't
really care what channel that
advertising is flowing through or how it gets
done. And this actually accounts for
what has led to actually some interesting
litigation against Google, you know, these
systems that sort of act on behalf
algorithmically of the ad buyer.
And so I think that's kind of a little bit of
what I think about as sort of like financialization
is that there's been an effort to kind of like turn this
into something that's a lot more tradeable and
that you can really, really kind of do at scale.
It's like the formation of a market at scale
is kind of how I think about the financialization
of this ecosystem.
So attention for me is really the keyword.
It's like why we're having this whole conversation.
I think of attention as
the most important, often
like worst theorized least
explored thing in life.
It's everything and then it's very hard
to get your hands around what exactly it is.
But you have a lovely line, rewrite.
The amorphous shapeless concept of attention
has been transformed into discreet comparable
pieces that can be captured, priced and
sold. Buyers and sellers
can quickly evaluate opportunities
and transact in attention at massive
scale without individually evaluating
each opportunity.
So there's this point here that our attention,
like much in the way that other kinds of bonds
and assets are, is somehow being
regularized, packaged together
and sold. How?
When you say that buyers and sellers

can transact in attention,
where do they do that? What do these
marketplaces look like?
So there's two elements to this.
So I think one of them is what are you buying
and selling exactly? And it's actually
fascinating because there's a bunch of
standards that have been written in the ad
tech industry to say, okay, so
what is a page view?
What is time on site anyways?
What is attention? I think the question
that we're really ultimately trying to answer,
it's written in kind of quite terse
speech frequently, but I think
it's in some ways kind of like an absurd exercise.
How do we turn this thing attention, which is
just me looking at something
into something that can be bought or sold?
And typically what that ends up looking like
is measuring it based on
your activity or your
kind of engagement that you have with, say,
a website or an app. One
common definition is, okay, you
have held the ad in the window of
your browser for at least a second
before moving on.
And that's how we define the proxy for attention.
That's really what a buyer is buying
when they buy your attention.
And then the second question, a bit of your question was,
okay, so then how is this kind of bought and sold?
And this goes to a little bit of the kind of process
I was describing a little bit earlier,
which is that you have a marketplace which
consists of these kind of two types of infrastructure.
There's essentially a set of kind of
bits of software that act on behalf of
the sort of publisher. So this would be
your New York Times or your Facebook or your
Google or, you know, kind of places that are
aggregating attention. And then you have

a set of pieces of software that basically
represent the ad buyers here, right?
So your Coke and Pepsi and your agencies.
And these kind
of two bits of software plug into
an ad exchange where essentially
these kind of bids and offers are made, right?
So in the description I gave a little bit earlier,
it would be, hey, we've got mail
25 to 35 clicking on this
website. Who wants to buy
the ability to deliver an ad to him?
And the exchange basically facilitates
the auction by which sort of these bits of
software acting on behalf of agencies
and Pepsi and Coke go
and compete to basically deliver those ads.
And so this is by and large kind
of an instantaneous process. It happens between
the time at which you click to go somewhere
and the time at which the page actually loads
on the other side. And that's kind of
what it looks like, right? And so this is all done
really in an automated way. We're talking about
global servers talking to one another
rather than anyone having to pick up the phone or call anyone
to kind of facilitate the delivery of ads.
I mean, that's truly amazing.
Put aside however you might feel about advertising
or attention or anything else. Sure, yeah, of course, yeah, yeah.
That this is all happening. There's an
auction for your attention which serves
you up something in a personalized way
and the time it takes you to load a website
on a broadband connection
is nuts.
It's wild.
Yeah, I agree. I mean, I think it is
maybe at the risk of overstating it.
I think one of the premier engineering
achievements of the 20th century,
like, you know, in some ways the reason why
Google succeeded, right? There were other people

playing around with these types of marketplaces when
they were coming up. They succeeded because
they were able to do very high performance
infrastructure running
at really, really high speeds.
That was the secret to their success and getting
that to work is, yeah, an enormous
challenge. I think it's like just wild that it works
like that. Wait, can I hold you on that for a minute?
Because this is, I think, a pretty unknown story
for most people about Google. I think you say
what did Google do? People say, oh my
god, they figured out search.
And that's half of the story of what Google
did. That's right.
But they also figured out the business model
of online advertising to a very large degree.
So what did Google do to make their
business work? What is the great Google
business innovation? That's right.
So the complexity,
you know, put yourself in the shoes of these
kind of like two youngsters from Stanford
with this company with Search Engine.
You have lots and lots of people using this
thing called Search to find things on this
wild new thing called the Internet, right?
And this is all well and good. You're very
excited that you have a bunch of users, but you're
just burning cash on a month-to-month basis,
just paying for the service to keep this thing
running. And the engineering challenge of
delivering advertising here is to basically
say, okay, someone could come to our
website and search for literally
anything. How do we make sure
that we can deliver an ad that's
relevant to that search query
at the time at which they kind of like
do that search query? And so
like the engineering that needs to take place
in order for this to happen is that you basically
set up a marketplace on a keyword

by keyword basis, a kind of product called
AdWords. And this was kind of the
system that they set up was essentially
an auction infrastructure.
So what they would say is, okay,
well, if you're a plumber, you can
advertise against the plumber keyword.
And other plumbers who also
want to advertise against that keyword can bid
against you. And an auction will be sort of run
to deliver that ad. And part of their
innovation there was not just kind of like
setting up that marketplace, but
famously one of their kind of
key things that they sort of figured out was
that they also wanted to kind of rate
the person who won the ad based
on the quality of the ad. And that was built
on a number of different features about the kind
of ad you'd submit to the system.
And so kind of what they were trying to do in this
early phase was kind of balance the
scalability of advertising, but also to
ensure that advertising didn't become
sort of terrible, that it wasn't low quality
ads that you didn't want to see. And
like I think in nailing that and getting a marketplace
to really get up and running, that
in some ways is kind of their true sort of business
innovation and the thing that created sort of this
waterfall of money that's kind of supported the company
to this day.
So now I want to go back to this question of what kind
of internet the ad business has created
because whether or not everything begins with
ads, it does at least
in the case of almost every major
online platform with the exception of Wikipedia
and then a couple of the
subscription based streamers like Netflix.
It all becomes ads.
So once you have
an ad business, once you're there

what are you incentivized
to do?
And then kind of a very long
legacy. I think it's a metanarrative
of the last few decades of the web.
Famously, Larry and Sergey
have this paper where they first describe
kind of the architecture of their search
algorithm, so page rank.
And one of my favorite bits is they
have an appendix where they go out of their way
to say let's consider whether or not a search
engine should ever adopt advertising.
And they conclude
much to I think the chagrin of
their future lawyers that would be representing
for various antitrust proceedings and otherwise
that essentially that no
search engine in their right mind
should adopt advertising because
once you have a third party that is
kind of paying to access eyeballs in your
search engine, you have lots and lots of
incentives to kind of shape your experience to
cater to the people who are really paying
your bills. You know, I think this is part
of the sort of concern about online advertising
is to say, okay, well, in that
case, you really want to be able to
provide a lot of data about your users
to these advertisers. That's one thing that you might want
to do. The other thing is that you might want
to make sure that the ads are kind of
indistinguishable from sort of legitimate
search results that the search engine is showing
up, right? And so one thing that people have pointed
out is like it's harder and harder to kind of tell
what's an ad and what's not an ad. And those
types of incentives have always been sort of
at the heart of the web, right? That like,
no, no, we can really balance these incentives.
And I think some people and I would count
myself in this category would say, well, no,

even the kind of strongest company becomes
sort of victim to these incentives over time
and that they have sort of these profit
incentives to structure the web in a way that are
ultimately kind of adverse to their users.
I think there's a
view out there that I've
conflicted feelings about,
which is that the
obsession with engagement
is a byproduct of the
advertising-based business model. That if you're
not based on advertising, if you're subscription
or something else, you don't really
care how long people are on your
site just that they're paying for it.
On the other hand, you'll hear
the head of Netflix say, are big competitors
sleep and Netflix has
autoplay and they're obsessed with how long
you use Netflix for a month.
So do you buy the narrative that
the attention-hungry
outrage-oriented
or often outrage-oriented engagement-based
nature of most
major online platforms now
is a factor
of the ad buying process?
I'd say no.
And I think this is one of the reasons why
the book kind of pissed off like
ad optimists as well as sort of ad critics.
I don't really believe that
view and I think the view as at least as I'd frame
it is basically that like
the internet is kind of like to blame
for a lot of the content ills that we see on
the internet. But I don't think it's
so certain, right? Because I think the incentives
for a creator, right, like
I'm going to use that very broadly, everything from your user to
your sort of professional YouTube influencer,

I think is interested in generating
an audience online, whether or not the person
pays for you by subscription or
you release that content for free or
if you get ad dollars, right? I think that
in all those cases
there's a desire to grab attention
and I think that introduces
bad incentives no matter what the business model is.
Now I do think that
there's kind of two subtleties that I point out there.
I think one of them is that I think there is content
that might not otherwise exist
unless there was sort of the additional
kind of impetus of advertising, right?
And I'm thinking here of kind of like
the sort of really interesting ecosystem around
fake news websites, right? It's like,
well, maybe we can really
kind of like gin up very profitable websites
very quickly by generating a certain type of content
and it's kind of like, well, would they be
willing to go to those extremes in natural
terms if their only incentive was to aggregate
an audience? That's one view and I think
there's kind of some cross bleed there.
I think there's a lot of gray area.
I think the second thing which I would maybe
kind of pivot to is
to kind of think a little bit more about
like the influence of things like content
recommendation, right? On shaping
the types of content that people produce.
I think in the default, in all cases, people want
audience, but I think when there's
the additional intent of to say, oh, well
if you publish this type of content, you'll get distributed
to everybody on our platform.
I think in some ways that's almost even a stronger
motivator than sort of simply kind of like
ads, right? Being the driver.
And so I think obviously it's a complicated
question, but I think it's very wrong to believe

that at the core of this
ads are to blame for
the outrage culture, if you will,
of online discourse.
I want to pick up on one of those subtleties.
Something that ads permit
is financing
mechanisms that are built very much on scale.
So you can have
the example of the fake news websites is really good.
If a lot of people are coming to your website
but people don't really know it or like it,
it just, for whatever reason, is getting
a lot of drive-by traffic.
You can make some money off of that under ads.
Subscription, you actually need to connect people
to the site. Now you can do that in good or bad
ways. A lot of things that do very well in subscription
are very bad things because people are
subscribing because they believe
or want to support something very bad.
So I'm not a idealist
about subscription either.
But if you take, say, what's happened on
Substack and what they've proven out,
one thing that subscription really allows
is you can have 5,000, 10,000, 15,000
people. And if they're only
to pay 20, 30,
50, 80 bucks a year for what you're doing,
that's actually quite a bit of money. Whereas
10,000 or 20,000
people for ads is like
nothing at all unless you have
intense industry-specific advertising
for a decision-maker class.
And so there is something
about what is permitted in the two. I do think
that the internet moved way more towards
scale-based business models because
of advertising
when a lot of what is best is often
a little bit more niche, but that tends to thrive

better in a subscription model.
I never really thought about it like that,
but I think it's a great way of taking it,
which is I think we can think a little bit about the fact
that the ad market was designed to be
as frictionless as possible, right?
Like that the old generation of advertising was bad
because, yeah, you had to call the madmen
and get your ad produced and it took a really
long time to sign an engagement letter
with them and it just complicated.
And the effort to commodify,
to financialize attention
has been to make it as frictionless as possible, right?
Like you have a website on the internet,
you can just plug into this ecosystem and start making money.
You have ad dollars you want to spend,
you just put your coin in the slot and you go.
And, yeah, I think that's right.
I think we've landed on sort of like metrics
and an infrastructure,
which I think might reward
kind of like content on a
page-by-page basis maybe is kind of a way
to think about it, right? Like that there's actually
something about the business model that suggests
like the ordering
or the structuring of content
and information online.
Now, like you say, I
hesitate to be like, oh, and that means that the content
is more shallow on the internet or
oh, isn't it the case that like it's just intellectually
less interesting? I think that brings a lot
of baggage to it, but I think that
if you're just purely talking about like how
we experience content online,
do we think that
the experience of it as just like a single page
that you hit and then you go away?
I think the idea of that, I think, is a lot more
possible because of the ad ecosystem.
And so, yeah, it is sort of interesting to think about

like almost like away from kind of a values
laid in judgment way of thinking about it, almost like
what's the collection of texts
that you encounter online and how is it connected
to one another is very much kind of like shaped
by ads. I think it's, yeah,
a super interesting way of thinking about it.
My name is Abdi Latif-Dahir. I'm the
East Africa Correspondent at the New York Times.
Imagine
a 100-year-old
fig tree in downtown Nairobi, Kenya
standing in the path
of a major expressway that is
about to be built, funded by China.
Fig trees are
very important for many
Kenyans and the young people are trying to defend
the environment. There's
an outcry. People rally to divert
the highway rather than chop down the tree.
There's a confluence
of so many things here.
New York Times subscribers
keep our journalists reporting from
across the map to help you
understand the issues shaping our world.
If you would like to subscribe,
you can do that at nytimes.com
Tell me about the central metaphor of the book.
The subprime attention crisis.
What is that?
I mentioned a little bit earlier
that I can tell you about the dream
and the nightmare.
The dream
has been
the laissez-faire vision
of online ads.
These ad exchanges
would connect ad buyers and ad sellers
and we would have
a transparent marketplace where finally,

we'd be able to overcome
what's known as Wanamaker's law.
Wanamaker's law is
50% of the money I spend on advertising
is wasted. I just don't know which.
The idea is with data,
with targeting, with all this machinery
we've built, finally
we can get this thing to work.
This is something you still hear from ad boosters
which are people in the industry that say
no, we've cracked this.
We can put in $1 here,
get $1.25 out, and by and large
the system works.
We've really cracked it.
One of the things I point out in the book
is that this marketplace may be
a lot less functional
than it might initially appear
because it relies on a number of assumptions
that don't turn out to be
ultimately true.
What I argue is that we've got
implicit in the title of the book
Subprime Attention Crisis is kind of
bubble in the making.
We have a market that people believe
is extremely, extremely valuable
and only getting more valuable
is dysfunctional with time
and that the kind of central promise
of this market, which is
I can reach a consumer and get them
to buy my product, is not really
ultimately playing out.
I can kind of sketch out just a few arguments
and I'm sure we want to go into them.
Yeah, make the case for me.
This is not what it appears to be.
This is not worth what people think it's worth.
Maybe a couple of quick arguments
I'll make on this front.

The way I kind of think about it is
hyper-targeted mind control laser
that you fire from space to this consumer.
I can get to Tim
to change his behavior
and as I said before, that relies on
a couple of different assumptions about
things working really well in the
ad ecosystem. So the first one is
that you can reach me or you can reach
a real human at all. That is to say
when I deliver an ad on this marketplace
that it actually goes to someone
who is a human
and there's these really interesting kind of
things that have been done. So
Forrester, the research group did this paper
that kind of suggested that 56%
of display advertising, so the kind of
ads that you see on places like Facebook
may actually never see a real person.
It's kind of like lost to fraud
and the way the kind of gimmick works
is basically that these are ads that are
basically being delivered to a fraudster
that actually has a bot that's loading
a website or has what's known as a click
form where you pay a bunch of people to click on ads.
And the scale of that's huge.
The really kind of ambitious estimate
is one in out of every $3
is lost to fraud online.
So, okay, well, maybe you take a look at that
and you say, okay, Tim, like lots of markets have fraud.
Let's assume that you actually reach
a real person.
And then I'd say, actually, that's also another assumption.
The assumption that you actually reach a person
and you have relevant data
about that person. So I've been using the
mail 25 to 35 through the episode.
There's some studies that suggest that
essentially like 41%

of sort of ad campaigns
don't actually reach the right person
because the ad data is all inaccurate.
So you think you're reaching mail 25 to 35.
Turns out it's like female
75 to 95 that's living somewhere
completely different from where you thought.
And then I think there's another kind of layer of arguments
which is to say, okay, well, Tim, like we're going to
reach a real person. We're going to have accurate data
about them. Does this actually work?
And again, another number
of really funny kind of shocking stats, right?
So Google itself did a study a number of years ago
that suggested that even if the ad is delivered
56% of ads
are just never seen, right? They're like below the
fold. They're in some weird corner of the site.
You're just not looking at it because you're reading the article.
And so, you know, I think the way this kind
of goes is kind of ultimately you're like kind
of grinding, grinding, grinding, grinding down and
you're like, are these ads actually even reaching
people? Is this as effective as we think it is?
And I think in the very least, right, even
though we can come up with examples of ads
working, the question is whether or not that's
the median case, right? Is that that's by and large
happening in the ad markets? Or is it largely
kind of money that's being kind of like wasted in the
sort of weird system of
fraud and lack of attention and
inaccurate data and all these sorts of things. And so
the sort of vision of this kind of mind control
laser from space is a kind of vision of perfection
that doesn't actually exist once you actually get into
the guts. And so what if it
doesn't work? Why should I care
if this ad bubble, if it is a bubble
pops? Yeah, I
agree. I think like the reason
we should care, right, is not
so much that we're worried about Mark Zuckerberg

having a couple less billion dollars, right?
Like I think the reason we should care is
that this ecosystem funds
almost everything that we know about the
web. It subsidizes the fact that we can access
a lot of services for free online.
It funds journalism and media. Like if you think
that's important, that's like a huge reason to care.
One of the things that I think is another
weird angle on it just to throw it out there is
a lot of these companies that have become so
rich off of the
ecosystem are simultaneously subsidizing
lots and lots of other
things outside their industry, right? So you think
about the entire kind of wave of
advancements in AI.
Those are being done by companies that
can only subsidize those at a huge, huge
loss because they make money through
advertising, right? So there's also like this kind of
relationship between like the health of this ecosystem
and the kind of advancement
in science and technology. So I think
for all those reasons, right, like I think we should
care more about this
because it touches so many
parts of our lives. And I think if it is as
shaky and as messed up as
there's a lot of evidence to suggest that it is,
you know, we might want to think about like the stability
of that market, right? And like, you know, the
bigger question, right? Which is what do we think we want
to replace all this?
One thing that was interesting for me and challenging for me about
your book is that it takes this reverse
view of the way I normally think about this
market, which is that what I care
about is the quality of the attention
not what is happening to the
advertising. And you're making this point that,
well, if it turns out the advertising isn't working,
then a lot of the

economic underpinning
of the web all of a sudden blows up.
But let me push on this a little bit
because I've covered financial crises
and in particular cover the subprime
mortgage crisis. And so
I spent a lot of time thinking about this metaphor.
And
one thing that occurred to me about it, there's
an old Keynesian insight
about financial crises, which is that what
is weird about them
and the damage they inflict
is it nothing has happened to the factories,
nothing has gone wrong with the people,
nothing has been lost
on our knowledge of how to do work, that
the economy has not become any
less productive at its potential.
There is just this weird financial
dynamic that makes it less productive in
fact, because people, you know,
lose their money and stop investing and so on.
And one thing that struck
me is that that is
a disanalogy here
because I think the thing that I worry about most,
not with whether the ads work or not
because you can imagine this happening, maybe
even happening worse in a situation where all
the ads work perfectly, but
is that if you think of
attention as a collective good, a public good,
a public resource, which I do think
of it as, then
if the ad
industry is getting either
too good or too pervasive or too
attention grabby or whatever it might be
or what it's supporting
is not good information,
then it's degrading the collective quality
of the attention. Like unlike in this

prime mortgage crisis where all the houses work
basically fine, right, you could inhabit them.
I worry that our collective
attention is being degraded
by the way the web has evolved
and every individual
player has
an individual incentive to grab more and more
attention. It's highly competitive.
They're all competing with each other for
our attention. And so you get
this sort of tragedy, the comments dynamic
where everybody is basically
exhausting our attention, making us irritable
and angry at each other and
unable to focus.
And it's not really in anybody's interest
to figure out how to collectively
manage the attention to the comments better.
I'm curious how you respond to that.
Yeah, I think that's right and I think
luckily I don't think we're too far apart
Ezra in some ways. The stat
that kind of really sticks out to me when you say
that is this kind of comparison I do
in the book between the first first banner
advertisement that ended up on the web
as this AT&T campaign that was
running on, I think, Wired.com's website
and the click-through rates there
in 1994 were 44%
which is wild. It's almost from like a
science fiction universe because I think if you're
familiar with the stats
that we have today from banner advertising
it's more like 0.1%,
right, like you're thrilled if you get anywhere
near 1% click-through.
Anyways, I come to mention that just because I think
it's like almost a proxy for what you're
talking about, right, which is sort of like
attention as a common good and whether or not
the incentives of this market are

essentially driving disattention, right,
that like basically your content
feeds, your information feeds are just filling
with so much garbage that even
the good stuff can't get through
and the end effect is that people just pay attention
less or they pay attention in a much more
shallow way than they used to
and that ultimately is a kind of problem,
I guess implicit what you're saying is kind
of a problem from like a societal standpoint,
almost from like a democracy standpoint.
I think it's also kind of like an interesting
way of sort of using the subprime
metaphor again, right, because what is the core
asset that we're buying? We're buying
these kind of like click-throughs, we're
buying these engagements, we're buying these
moments that you look at online,
but the core of it,
which is how much are people actually paying
attention to the ad is declining, declining,
declining and I think it's a little bit like
the subprime mortgage crisis in the sense that you have
generalized debt obligations where people are like,
we're going to just keep buying the same mortgages
as we've always done, but underlying that
the asset's just getting worse and worse
and worse and worse and worse until the whole
thing kind of busts and I think that's similar
here, right, which is the market's still behaving
as if it's buying attention circa
1994, but the kind of collective
incentives of the market to take kind of a
Keynesian approach has resulted
in a situation where like the underlying
kind of societal dynamics of this if you
will are not really supporting the kind
of attention that was bought and sold back
in the day and I think that really
is kind of quite parallel to the crisis.
The weird effect of that if you buy what I'm
saying though is that when we looked

at ads in the early 90s,
they really did work better, which is
kind of the funny thing, like there maybe
been a period where actually ads did work better,
but essentially the core underlying asset,
which is attention, has become so degraded with
time that like this channel is becoming
useless and maybe this is kind
of a way of thinking about advertising, which is
advertising is more a function of novelty
than it is a function of anything else
and so that the internet is
kind of just going through the same thing that all other
media channels have had, which is that it fills
with terrible advertising and then people are attracted
to the sort of high value attention channel
and they move on and maybe that's
happening with the internet as a whole.
I think this is a place
where in a weird way advertising
and basically everybody else on the internet
the incentives are aligned
but nobody seems to know what to do
with it, which is
I'm not very convinced by the idea
that advertisers are going to wake up one day
and decide their ads aren't working anymore
because I'm more of the belief, as you
mentioned that law earlier, that they know
a lot of them don't work, but they also don't know which ones
do work and everybody is trying
to be the place where it really works and so
that can just roll on for a very long time.
But
the danger to ads
is ad blockers.
We see a pretty
significantly growing proportion of the online
user base using ad blocking technology
and that can't get away from everything
but it actually can block quite a bit.
You see Apple dealt
a pretty significant blow to Facebook

now met as business by just creating
this little ask app not to track
just knocking app tracking
which is
part of the advertising machinery
from iOS
or at least making it easier to block app tracking
within iOS
but the more this happens
the more you're seeing
these symptoms
of on the one hand
really significant user discontent
people don't like the way the modern internet feels
they don't like the ads on it
to some degree they just don't even like what they're doing on it
I always think it's a much bigger vulnerability
for Twitter than people give it credit for
that so many of its power users have this
hellscape attitude towards it
it's like oh another day on the hell site
that's not a great way
for your loyal user base to feel about you
I think it's fine to say that's a bad user experience
yeah so something is going wrong
there that I mean even in Elon Musk's
letter to advertisers he talked about
Twitter potential
Twitter's potential is a hellscape
there's something wrong there
that if there becomes a technological
or competitive answer to that
something else that does something similar for you
but doesn't make you feel like that
you can see mass migration and so one of the things
that feels to me much more rickety
internet than people realize is
people don't like the experience of it
and they may not feel like they have
good alternatives but the more they
do be that browsers
that block ads or other kinds of services
or whatever the more they might end up

you know getting into some tipping
point dynamic or once a network
effects of things begin to fade
they everybody begins to leave and mass
so
a lot of things to respond to there
I think that's right that you know
you're almost kind of like articulating
an alternative path
right to how this whole
ad thing might come apart
and it isn't the kind of sort of explosion
that I'm putting out in the book but more sort of
the shift in
sort of what people want
when they go online and I think that's right
right like I think ad blocking in some ways
is just the most kind of potent
or most striking kind of like proxy
for the fact that people just don't want
to pay attention to ads right and so like
there's two ways of avoiding ads or you just don't
pay attention to them or you go out of your way
to install software that actually
blocks those ads and you know the numbers
that we've seen on ad blocking is that it is
showing up right and so there's maybe
one small stat here that I'll maybe drop
which is pretty interesting there's a study
from comscore a number of years back
that kind of concluded that sort of 8%
of the population is responsible for
85% of the clicks online
the clicks on ads are all clicks
I believe it's based on ads specifically
so one of the things that's sort of interesting
about that is kind of an ad ecosystem where
you could sort of imagine this kind of
weird ecosystem that is maybe parallel
to what you're talking about which is basically that
like people get tired they drop off
they go off these platforms
we kind of like have more and more the ad

ecosystem resting on a small group of people
who are just ad maniacs
I think that's like a potentially sort of
like interesting outcome from what you're talking about
and I do think that you know when people say
oh you know like I was catching up
with a friend recently who is like
it feels like the era of Twitter is
over right like we're not going to see a Twitter
competitor just because people just
don't want that experience anymore
it is sort of interesting to consider it's just like
is the future of the internet really social
like maybe we kind of want to escape
that just because that channel has become so polluted
and has so much baggage now that it's almost
kind of unsustainable because it has like
it's toxic to launch a social
network given the sort of like
norms and expectations that you know people bring
that kind of product.
Twitter brings up an interesting shift here though
which is another thing that could
happen is a shift to more
mixed business models and in particular I think
we're at least seeing both in
terms of actual platform
and publisher behavior
and in investment at least
a lot more experimentation with subscription
so there's of course the big
streaming platforms which are mainly
subscription based right you think of
Netflix or Disney Plus or HBL
those are not advertising based businesses
maybe they'll have some
now or later but that's not really what they're doing
you saw YouTube roll out
a subscription product
I pay for that I find it very much
worth it I don't have ads on YouTube
anymore and it's better
Twitter Blue under Elon Musk

they fired a bunch of people they made themselves
much more toxic to advertisers
and now they're trying to get people to pay a subscription
fee I don't know if that will work out but it is
certainly what they are attempting
I've mentioned Substack which
isn't a huge business exactly
but I think it's had a very outsized
effect on how people think of
how you might fund media
online and I think actually much more
so at the vanguard of that is the New York Times itself
which has built a huge subscription business online
much bigger than I think at this point anybody
else's and sort of proved at least
it is possible to do but of course
the FT and the Wall Street Journal and the Washington Post
and others have them as well
and so it seems to me there's
a shift right now both in fact
and zeitgeist towards
subscription maybe not always to the
exclusion of ads a lot of these
are hybrid models but trying
to hedge your bet a little bit
how do you think about that
yeah I'm really excited
by these types of models
and this maybe takes us all the way back to the
early part of the episode is
you know for me a lot of this comes down to
when someone encounters
content you know
whatever that word means on the internet
what do they expect to pay for it
what is the expected value
I guess and and expected price
of that and
a lot of that I think is like
it's a common good in some ways right which is okay
we could live in a society where everybody says oh yeah
just by default I just think that this
should cost money I will pay for it

and all of these kind of
attempts to sort of like scale subscription
normalize subscription
if you will kind of like shift the overton
window around subscription
are to me really really important because
they in some ways kind of create the sort of like
normative scaffolding
that other businesses can build on right
like okay well great we've got actually
like an audience of people that have proven
that they want to pay for things
in this way online now that
expectation is set maybe we can build on that right like
it's not so weird for you to pull out your wallet
and do that online
so I'm quite interested
by it and I think it's exciting because
like if we can win that sort of
war for hearts and minds I guess that's
to be too dramatic about it like
possibilities start to open up on the web
right because I think ultimately this ends up being
people and how they want to spend their attention
and how they price their attention
now I think the only kind of note that I'll strike
maybe on the other side of that is that there are
some people that say
and then we'll live in a media utopia
and that's a little bit of a straw man but
I think I kind of pointed out to say that
there are trades there are very real trades
in imagining an internet
that's all subscription right like one of them
is just accessibility
one thing that a lot of people have kind of interestingly
sort of pointed out is like a world in which high quality
media sources are moving behind the paywall
is one in which low quality media sources remain
out and widely available
and I think that kind of dynamic is
is a really sort of interesting
one and I think part of it is just like

do we want to live in kind of
like a Walt Garden Web right where it's like
okay well you can you can access this kind of like
other worlds but only if you can pay
I think overall I tend to be still in favor
of subscription and normalizing subscription
because I think it forces that hard conversation
right which is what kinds
of these services are so valuable
as to maybe being something
we want to subsidize or like kind of think about
as a form of infrastructure that you sort of have
access to as a right
we've been able to avoid those discussions because the price has been free
but the creation of subscription
also kind of like I think forces that
for any conversation in a way that I think is ultimately really helpful
So you worked at Harvard MIT's
Ethics and Governance of AI Initiative
you worked as Google's Global Public Policy
Lead on on on AI
about a couple years ago
AI is is exploding much more
into wide use now
I hear the things are happening
Yeah there's been been a lot I don't know if you've noticed
and one thing
that I would say concerns me about it
is that a lot of the major AI shops
either are part of
ad-based businesses so Google
or Alphabet I guess
has a lot of AI work going on
Meta has a lot of AI work going on
or attached them in one way or another
so open AI has a lot of investment
from Microsoft which obviously sells
a lot of software but if you think about
what they want to achieve one day with Bing
I mean there's a big ad market there too
right and what the kind of AI we're
creating is good at is just creating
endless quantities of

personalized manipulated content
and figuring out
what people want from that content
one thing that worries me is actually a
world in which AI is used to make online advertising
much much much more effective
and personalized and omnipresent
and creepy
but maybe I'm looking at this wrong way
so I'm curious if somebody's thought a lot
about ads and thought a lot about AI
how you see AI changing
what is the fundamental business model of the internet
now that the major AI systems
are being created by the people who control
the models
yeah big question
and I think there's a couple ways at it
I think we can think a little bit about the influence
of the kind of current wave of
AI innovation which is a specific technology
called large language models or LLMs
as having an impact on
sort of the product landscape on one hand
and then on the business landscape
the ad landscape on the other
and so let me first begin I think by
kind of thinking about the product landscape
I think what's so interesting and
one of the reasons that has been reported
there's a code red at Google
that OpenAI's chat UPT has gotten so many
users we're worried because it might
ultimately replace search
and we can almost think
about like the epistemology of search
if you will the kind of experience
we've had with a sort of google
centered web over the last few decades
is one in which you punch a search query
into a box and what comes out
of it is a set of options
it says okay we've ranked these

and you choose and you know hopefully
we've delivered something that's relevant to you
and you click on it and you go about your day
what's sort of intriguing
if you think about sort of LLMs
as kind of a thing that might eventually replace
search because it's easier
people want to just like deal with one
conversation not have to translate through
or trawl through like a bunch of different search results
is that you almost changed the epistemology
of what it means to kind of explore
the web right that
you know rather than putting you know your search query
into a box and getting 10 links
what you now have is a single voice
that synthesizes the information
and then offers an opinion
right and there's ways of crafting that
you could make your agent you know more or less
uncertain more or less ecumenical
more or less you know willing
to give you different types of points of view
or different links to different types of information
but it is a lot more kind of constrained
because it happens in the context of like a voice
versus what you could think of as search
being much more of kind of like
a computer in the old vein right like an information
terminal that you type things into to get information
and I do think that that
is potentially kind of like worrisome right
which is like we're kind of moving to
an internet that's based on kind of like monolithic
narrative right synthesized by a
machine rather than an internet
that's based on kind of searching through
lots of different options on your own right
and one is less friction one actually might
give you better results right like it's possible that
the agent gives you the result that you're looking for
even better than Google but I think part
of the question is like do people start to

think about the internet quite differently right
that like do they not necessarily really
want an internet of websites what they want
is an internet that's kind of translated through
an assistant and I think that leads to
a very very different experience
of the web if we go go down that route
it's funny because I remember
a previous iteration of this fear
for Google which I think was less
true obviously but
there's a period when Quora the question
and answer site yeah was
a very big darling of Silicon Valley
and I don't remember where
I read the major article on this I vaguely
think it was wired but that might be wrong
but there was a belief
among some people that Quora
was going to replace Google like this would be
the future of search you would ask a question
or you would search questions had been asked
you get this great answer from the community
etc etc and that never came
to pass right and Quora kind of
became a search engine mill with
decreasing quality over time but it does seem
to me that the vision here is something
like what that vision was
that instead of
asking Google and Google
gives you a
array of websites you might want to look at
I mean what you can do right now with chatGPT
is ask it a question
and get some answer that
to be honest in most cases
when I ask it a direct question I get a sort of better
answer than I do directly from Google now
which I think has become a much degraded
product but nevertheless
I wouldn't exactly trust it
because it constantly hallucinates information

at me it doesn't know anything that happened
after 2021 it's a little bit of a
weird I mean it's not really
search it's a
I don't know what to describe it as but it strikes me
as odd
it's reality fan fiction at the moment
right like but that's why it seems to me
to make more sense for advertising than for search
in a way I'm sure people will
try to integrate it in search and I kind of suspect
Google is going to make Google somewhat worse by integrating
it to search very quickly out of
panic but
I don't know advertising doesn't have to have that much
relationship with the truth
and AI doesn't have to have that and a lot of
the programmatic advertising you're talking about
is terrible because they don't have budgets
to get good ads built for them
so you could really imagine them
working much more with AI and AI is much better
taking in feedback and then altering what it's
doing based on you know metrics
coming in from the customer it just feels
to me like AI these large language
models are almost perfect
to be hooked into the online advertising schema
in a way that they're not perfect for
quite anything else where you really need to trust
what's happening because like you're not just trying
to get manipulation metrics done
yeah I think that's right I think
you know kind of what I'd say
is whether or not you believe that
we finally have crossed the
want to make or threshold right like when we think
about it as kind of like an event horizon
where the ongoing dream of the internet
is I can deliver a message
that is truly persuasive
and like I can do that automatically
and I think you kind of have

to believe that there's something that's been
so dramatic
that's been unlocked by LLMs
that the ads are going to be
that much more effective
and that I'm not so sure
on maybe I think one thing
that I will like I can see
we're going to create the ability to create like
very high quality high fidelity
ads and distribute that to everybody
there's a project I'm working on
with a friend of mine Noah
where the plan is to basically do like a
Turing test for ads right where we basically
have a bunch of people generate human based ads
have a machine generate a bunch of synthetic ads
and the idea will be to get a bunch of ad execs
to say can you actually tell the difference between the two
and then the purpose of the exercise to demonstrate that
like I think the quality is getting to the point where
yeah do you need these creative agencies
do you need like the whole
kind of like again like infrastructure
of marketing to produce ads
that have that vibe
that we spent a lot of money on it and it's brand advertising
and I think that that is something
that will definitely change in the next
few years but as always
as I've done multiple times this conversation
I think again we still have to decouple that
from the question of persuasion right we may be flooded
with these kinds of ads
but I think again like I'm not so
certain that open AI has cracked here
is like the finally
the kind of like mystical persuasion engine that the ad
industry has been looking for all these years
well to take the other side
of that and to try to beef up
opening eyes valuation just one more time
they need it I think

I think the theory here would be that it's not
that what they've cracked
is that their system can write a better ad
than maybe it can in many cases
it's that what AI can do
is
enter into a tighter constant
feedback loop
because it's basically
costless to create a new ad based on
information you're pulling in from the person
so I'm going around the internet I'm getting tracked
and as you say a lot of what I get
now is unintentionally
hilarious like I go I buy
a bicycle and then for two months I was like
you want to buy a bicycle
how do you feel about bicycles
but in this case if you
hooked the AIs
into that tracking data
and you can see what I was doing and not doing
and they can generate
possible ads
for no cost at all
and they're quite good at it
what they are able to do right now I think is quite amazing
and it'll be better in a year and that much better
in two years and that much better in five years
it's the connection
of the AI's ability to learn
and track you
and costlessly experiment
with what will work for you
then within the ability to deliver that to you
that makes something different I mean Jeroen Lanier
has often talked about the fear
of the internet turning into a skinner box
and the sort of technologist
and VR pioneer and I think
sort of technophilosopher
where it just gets so good because of AI
or other things

at taking in signals from you
and then using it to manipulate your behavior
and that we don't want that level of persuasion
to be cracked that in many ways maybe another way
of putting this is maybe the nightmare is not
the nightmare of your book
the nightmare where the agencies recognize
persuasion is collapsing
it's the reverse
that the systems actually
get really really really good at persuasion
and have the information
from you which they maybe have now
but then also the systems to iterate
and experiment based on that information
so they're not giving you returns on that that are
ridiculous that makes a
truly scarier internet
not just for selling you things but
political propaganda disinformation
and fake news and all the other things one might
worry about
Yeah I mean it's possible I mean it's a really
just kind of long bet because the root
thing of what you've just said is people having
an intimate relationship with these agents
and I don't know I should just ask you
right like are you friends with chatbqpt
right like do you feel like that you've really
built up a relationship with any of the kind of LLM
technologies or could build relationship with any
of those technologies I'd be curious
to hear what you say about that
Oh I don't think I'm really friends with chatbqpt
but what I do think is that I'm
Google knows enough about me
that if you imagine Google has its own version
of chatbqpt
and that is not having any
direct relationship to me that I know about
but it's pulling in this data that
is used in very crude way right now
by the ad marketplaces but is now

consistently experimenting
based on these signals
and serving me up new and new and new
and new content really
micro targeted at me which
would be prohibitively expensive to do right now
when you need a person creating this
targeted experimental
content for every other individual person
that that's where you pass
some kind of threshold that the corporations
can't currently do now because
the scaling cost of that would be prohibitive
yeah it's
again it's I think it's possible I would do the
metadata right which is I think that the very
fact that we're talking about this and it is
dystopian and creepy
makes it a hard sell to the average consumer I think
right like because this is basically the creepiness
that people experience with like retargeted ads
for bikes for instance times
1000 and I guess the question is like
whether or not that level of
intimacy is also
going to come at the expense of trust
right which I think is also maybe an interesting outcome
which is I can deliver you the most micro targeted
excellent ad ever in some respects
but off the bat
you find it really weird that a system
has provided a recommendation of that level of granularity
again as always I think
the exercise will be can it become
normalized right and I think that that is
almost a picture something that sits outside of
technology
I think that's a very smart way of thinking about it
I think it's a good place to end too so always
our final question what are three books you'd recommend to
the audience
there's three books I've been reading
or have read as of late

first one is I've been revisiting a bunch of books
from the early part of the 21st
century like the 2000s
that were all kind of excited about the
prospect of the social web so the book I've been reading
there is clay shirkies here comes everybody
which is kind of this early book and kind of like
filled with excitement about the promise of
social technology and social media
and I think it's so interesting to revisit that
rhetoric just because I think it teaches
us a bunch of lessons about like what went right
what went wrong
the second one is my friend and I Craig
are working on this podcast almost impossible
so I've been reading a lot about Vegas
so there's a great book I'd recommend by Sally
Denton called The Profiteers
which is about this company Bechtel
which is one of the big companies that helped build the Hoover Dam
and basically became sort of like
the mega infrastructure builders of the
20th century it's like
completely fascinating explains much of the west
explains nuclear power
the company's in everything and so it's like
totally fascinating story
and then the last one I'll mention is maybe a little harder to find
but I'd totally recommend it for anyone who's interested
in it the book called Jim Ravel's
theatrical pickpocketing
it's a book that came out in the 80s
but is still available there's a magician by the name
of Mike Cavany who sells it on his website
and it's basically a very practical
how-to guide to do pickpocketing
as an entertainment performance
and I've been looking to because there's this
really fascinating history between the history of clothing
and how sort of magical illusions are performed
you know where your pockets are
whether or not your average audience member
has a vest on you know that kind of stuff

and that's a final one that I'll mention
that is just like an incredibly fascinating
read and if you want to steal someone's watch
it's good for that as well
Tim Wong, thank you very much
Ezra, thanks for having me on the show
The Ezra Clangio is produced by Emma Fagabou
Annie Galvin, Jeff Geld, Roger Karma, and Kristen Lin
fact-checking by Kate Sinclair
mixing by Sonia Herrero
original music by Isaac Jones
audience strategy by Shannon Busta
the executive producer of New York Times
and Penny in Audio is Annie Rose Strasser
Christina Similuski