

[Transcript] Hard Fork / Google's Trial Heats Up + How to Wear A.I. + It's Our Birthday!

Want to be successful? It'll take certain sacrifices.

You'll need to come in early, from surfing all morning, work through lunch, that you picked fresh from the garden, bend over backwards during video yoga, and burn that midnight oil. Hmm, is that lavender?

Because the rules have changed with HP Hybrid Solutions and Intel Core i7 processor.

I would like to say something to the Uber drivers. Okay, is that okay?

Can I take a minute? All of the Uber drivers? Yes, all of them. Okay.

Well, yes, two things. One, for the most part, you're doing a great job.

Thank you so much. Could not live without you, seriously.

But I have a second thing I want to say, which is, please trust the Google Maps.

Okay, the Google Maps know, and there's a chance that you don't know.

Can I tell you about what happened to me the other day, Kevin? Yes, what happened?

So, I needed to get to the airport, and I called an Uber, and it showed up,

and I hopped in the car, and the driver, who's an older man, began scoffing and balking at what he was seeing on the Google Maps. And the vibe he was giving me was,

I've been driving these streets for 50 years, and you're going to send me that way to get to the airport? I don't think so. And I said, well, you know, often when Google sends you in a strange way, it's because there's an accident, there's some traffic, and he was just like, it doesn't make any sense to go this way. He knows better.

And unfortunately, I'm a conflict avoidant person. And so I said, okay,

and because I'm my father's son, I had given myself plenty of time to get to the airport.

And so I just sat in the back as a little experiment, and what would happen

if we just relied on this driver's intuition about where to go rather than Google?

And what happened? We showed up 15 minutes later than we would have if we had just followed the Google Maps, because here's the thing, you might have great knowledge of the streets of your town. You might have been driving them for years and years and years. What you don't have is sensors in thousands of moving vehicles building real-time traffic conditions.

Do you remember when Apple Maps first came out and it was so bad?

I have friends I still can't find because they were using Apple Maps.

They just wandered off somewhere, never to be heard from again.

I did hear that Apple Maps has gotten disturbingly good recently.

Well, that's none of my business. I've been on Maps for life.

I'm Kevin Reus, a tech columnist at The New York Times.

I'm Casey Newton from Platformer, and you're listening to Hard Fork this week on the show.

The time Cecilia Kong joins us to walk through the spiciest moment so far in the Google Antitrust Trial. Then AI leaps off the screen and onto your body.

We'll look at the new hardware. And finally, it's Hard Fork's birthday.

We'll tell you what we've learned in the past year.

Kevin, in the criminal justice system, how does the rest of that go?

So a couple weeks ago on the show, we talked about the antitrust investigation into Google that has just gone to trial. It has now been a month since that trial began, and it's getting a little spicy. Yeah, because if nothing else, this trial has required some of the biggest names in the tech industry to show up in court and answer some tough questions.

Yeah. So to talk through what's happened in the Google Trial so far,

let's bring on my colleague Cecilia Kong, who is covering the trial for The New York Times. Hi, Cecilia. Hey, thanks for having me, guys.

So Cecilia, you have been covering this antitrust trial involving Google and the Department of Justice. And we've talked about this on the show a couple weeks ago, but it's time for an update on this trial because we are now a month into the biggest antitrust trial in several decades in the tech industry. So you've been attending the trial, immersing yourself in the trial.

What have you learned so far? Well, the trial has been pretty spicy.

It's a lot more exciting than I thought it would be. And that's because we've had some pretty senior leaders. The CEO of Microsoft come in, a very senior executive at Apple, and we will soon have the CEO of Google. So they've said some interesting things, just having them there.

We get a little peek behind the scene. And we've learned a few pretty important things that are of substance to the trial, as well as things that are just sort of fun to know and sort of eye-popping. Yeah, let's run through what we've learned so far in this trial.

One of the first things we learned is just how much

Google is paying to make its search engine the default across platforms.

And the Justice Department revealed that Google is paying at least \$10 billion to be the default on the Apple iPhone and across other devices. Right. I mean, one thing that I found interesting from reading your coverage and some of the other coverage of the trial is that during Satya Nadella's

testimony, the CEO of Microsoft, he said that Microsoft had tried to do these deals with Apple too and that they had been willing to give tons of money, upwards of \$10 billion to Apple, to get them to make Bing the default instead of Google. But that Apple, he didn't feel like they had actually considered that offer in earnest. So talk more about that. Yeah, that was probably the most revelatory witness testimony that we've seen so far was from Satya Nadella, the CEO of Microsoft. And he said that he had tried to negotiate with Apple to walk away from its Google contract and to bring Bing onto its Safari browser across its devices as the default. And Apple said no. He said that they were willing to essentially pay as much as \$15 billion. And another Microsoft executive, Jonathan Tinter, said that they knew that this was going to be a loss for them. They knew that the default was so important. It was so important to build scale for the search engine Bing that they're willing to go into the red in order to do that.

I mean, it is kind of wild on one level that Microsoft was willing to lose money on Bing to become the default search engine. At the same time, though, we know that Microsoft stands to gain a lot here if Google loses this trial. So we also can't really take what they're saying at total face value. What else did Satya Nadella say in his testimony?

Satya had a lot more to say, actually. You're saying that this is really the Google web and that the reason why this trial is important and that the DOJ's case against Google is important is that the internet is at a very interesting new transitional phase and that AI is going to really transform search. But even though Bing is excited about incorporating AI into its own search browser, you can't really grow and have the ability to compete against Google without scale and the amount of data that Google already has and that's able to feed into its AI system. So that was really interesting because it's actually kind of a reversal from what we've heard from Satya say earlier in this year when he was saying, this is a new age of AI. And then he was saying within the courthouse, well, not really in that Google's always going to win unless you continue with this trial and maybe break them up.

I'm glad you brought that up because to me, this is one of the most interesting things to come out of the trial so far. It was just a few months ago that Satya was saying that the new Bing was going to give them this fresh start in the search market and they were in it for the long haul and it was full steam ahead and they were ready to make Google dance. And now just a few months later, he's sitting in the courtroom saying, well, it didn't really work.

They took my lunch money. Yeah, the bully won and it's over. And my question is, to whom was he telling the truth? Was he telling us the right thing that they're in this for the long haul and they think Bing has a fighting chance or was that all smoke and mirrors and in reality, he always knew he was going to get steamrolled by Google?

Yeah, I mean, I think both can be a little bit true and a little false, right? Like in the sense that he could say they're excited about the new opportunities search now that they've incorporated open AI and other AI into their search engine. But at the same time, I think he wants to establish that Google is right now the behemoth in search by far, more than 90% share of the search market and that Google has a huge head start. They want to catch up. They being Microsoft wants to catch up with Google and they're faster than Google with AI, but it's going to be super hard. I think it's what's probably more true.

Can you tell inside the courtroom the degree to which these arguments from Sacha appear to be having an effect on the judge? Does the judge seem persuaded that Google has a dominant position here and that these deals have prevented competition in the search market? Or is it just too early to tell how he might be feeling? I would say in general, the judge has been really discreet about having any early opinions, but he's asked really decent questions, not terribly like awesome questions, but like decent questions about how search engines work, the role that data plays in the future of search, especially with these AI models that are going to be trained off of data that these companies already have. He's asked some good questions about market definitions and the way these default contracts work. So if anything, I think he has a decent level of understanding of what's happening. And mind you, this particular judge, he's been on this case for more than two years. He's been doing a lot of the pretrial work and so he's pretty versed at this point. He's been educated, but I definitely think that this is an interesting trial in that it is a bench trial. It's not a jury trial. This is also a trial of reputation for these companies. So even though it is one person who's going to essentially decide the future of search and what happens to Google, all these stories and these quotes that Satya had pretty well planned, it seemed like I'm saying that it's the Google web and that it'd be a nightmare quote scenario of Google continuous dominance. These kinds of quotes resonate because they make headlines. And so they're sort of a side show, side trial happening, which is like sort of a trial of public opinion. Right. One of the things that I found most interesting in this trial so far is this idea that Google is a superior product to Bing, not because Google is just better at making search engines, but because there are just advantages that it has by virtue of being big that allow it to stay a better product than Bing and make it very hard for Bing or any other competitor to compete. And there's this idea that keeps coming up in some of the trial coverage of feedback loops. Mikhail Perikin, who's another Microsoft exec, he runs their advertising and web services and it's sort of the de facto executive in charge of Bing. He talked about the ways that Google's scale gives it advantages over Bing. Some are pretty obvious. Like if you have more data, you're going to get better search results, but also less obvious ones. Like he gave this example of, well, if there's a restaurant listed on Bing and Google

that has its operating hours wrong, like it says it's open nine to five, but it's actually open nine to eight, that restaurant, because so many more customers come through Google, might choose to correct that information on Google, but not Bing, which would then make Google's listing more accurate and better, even though it's the same amount of clicks to change a listing on Google and Bing. So are there other examples of that of executives at Microsoft or other companies basically saying, well, yes, Google is superior, but it's because they're bigger and they have this sort of flywheel of scale that allows them to keep an advantage? Yeah, that was such a fascinating argument that Mikhail Perikin brought up. And that was probably the best example about the smaller

businesses that are more inclined to respond to Google just because they're not going to go to DuckDuckGo and try to correct a problem. That argument about scale, the flywheel and the feedback

loop also applies to advertisers. And you've heard that a lot from executives at Microsoft and other companies that advertisers, they just are going to flock to Google because it has the biggest advertising platform. And Mikhail Perikin's arguments really contradicted the earliest testimony from Hal Varian, the chief economist from Google. And Hal Varian, what his whole testimony

aimed to do was to try to argue against this whole notion that scale is so important for a search engine to succeed. And so that's going to be really an important argument for the judge to parse through because that's sort of the heart of this case is that, yes, we're looking at a mechanism that was potentially anti-competitive, these default search deals. But also what the DOJ is really trying to argue is that Google's scale, its dominance and its bigness was so important to its ability to establish these default contracts with Apple and other companies and maintain its monopoly. And that's really the key, its maintenance of monopoly.

Right. I mean, if you sort of distill it down, it sounds like the key difference between the positions that these sides are taking in this trial is that Google is arguing that Google is bigger because it's better. And the DOJ is arguing that Google is better because it's bigger. Yes. It's better because it's bigger and it's not necessarily as good as it was before because it doesn't have to compete as much anymore. So it has used its scale to establish its dominance and to keep its dominance. And that's not been good for innovation and competition is what the DOJ is arguing. So AI has also come up at the trial. Nadella raised some concerns about Google striking deals with publishers that could potentially give the company exclusive access to content that Google could then use to train its AI models. And maybe in that case, Bing would have an even harder time competing. I was struck though that Satya said, quote, when I'm meeting with publishers

now, they're saying Google is going to write this check to us and it's going to be exclusive and you have to match it, which one, if he has to match it, I guess it's really not an exclusive deal.

But two, this just seems so whiny to me. It's like, oh, the publishers that are barely clinging on for dear life are going to ask you for a few pennies so you can train your world-devouring large language model and you don't want to do it because Google is also doing it. When I heard that part of the trial, I did feel like Microsoft was sandbagging a little bit and that it just sort of felt like a game to these guys. Well, let's not forget that Microsoft is not a underfunded, small, you know. No, there were \$2 trillion. In fact, I think their market cap is above Alphabet, Google's. Combined, the two companies have about \$4 trillion in market value,

right? So these are two giants fighting against each other. And that's really what's happening in the shadows, if you will, is like the backdrop here is that, yes, this is about Google's maintenance and dominance, that we have these small competitors that have testified like DuckDuckGo, but truly this is about Microsoft versus Google, a rivalry that goes back two decades, that was ostensibly called off at some point right after Satya Nadella was named CEO and after Sundar Prachai was also named CEO, the two companies said, we have a peace treaty, we're not going to fight it out anymore in the way that we have, but that battle never really died. And I think in this trial, we're seeing that that battle only continued behind the scenes, especially in search. Let's talk about this embarrassing note. Yeah, one of my favorite things about these antitrust trials and complaints is that we do get the spicy emails from inside the company through the discovery process that get out, which give us some insight into how the employees of these companies actually talk amongst themselves. Yes, even despite the fact that Google apparently instructs its employees to put nothing in writing, use disappearing messages, they've already gotten trouble for this, right? But even still, a few folks did screw up and write some things down. That's true. So we have to talk about this amazing note from a VP of finance at Google, Michael Razak, who wrote in 2017 that Google's search business was comparable to selling drugs or cigarettes. He wrote, quote, search advertising is one of the greatest business models ever created. There are certainly illicit businesses that could rival those economics, but we are fortunate to have a great business. So this was something that Google fought hard to keep off of the Justice Department's website and strike from the public record of this trial. But the judge ultimately ruled that this exhibit should be public, even though it was, he said, somewhat embarrassing for the witness. Well, let's say there's another part of this quote that I think is super important, which is that he says that, quote, part of what has been so amazing is that we've essentially been able to ignore one of the fundamental laws of economics. Businesses need to worry about supply and demand. When talking about revenue, we could mostly ignore the demand side of the equation and then in parentheses, users and queries. So what he is saying is like, we have unlimited demand for our product. Well, where might that come from? Is it maybe that you have default search deals on every smartphone? Right? So this does sort of feel, I'm not going to say it's a smoking gun, but it feels like a great note for the DOJ. Yes. Yeah. So Cecilia, tell us about this note and what effect it has had in this trial. Yeah. I mean, it is great for the DOJ in two ways. Just like you said, it speaks to the argument, the heart of the argument, that this is like the power of defaults and the power of scale. But also, it's just so embarrassing, right? Because it shows that they talk about how they've essentially struck like an oil well, the best ever sort of jackpot of business models that defy most economics, he compares it to illicit businesses like cigarettes or drugs. Which I would just say, those businesses have not as good profit margins as Google search. Google search is actually a much better business than either cigarettes or drugs. I remember meeting someone at a dark alley in the early 2000s and them just sort of giving me my first few Google searches. And the next thing I knew, I was hooked on the World Wide Web and I have been ever since. Oh my God. So yeah, so Google fought against allowing this to be unsealed. It fought to make it sealed. And the judge has been confronted with so many demands by Google, Apple and other companies to keep information sealed, the exhibits as well as testimony. It's been a nightmare to cover frankly in that way and that it's sort of like you're going and covering a trial with blindfolds on and your plugs, sometimes that's how it felt

like. But the judge ultimately decided that this didn't have any proprietary competitive information that would be bad for the companies. It's just exactly the opposite of what Google hopes to portray itself as. Well, we have to talk about Google's explanation for this though. Which is that according to Bloomberg, Google says that the note was written for, quote, a public speaking class in which the instructions were to say something hyperbolic and attention grabbing. Why does Google have a hyperbole class for executives? What? No, seriously. Why? Cecilia, do you know the answer to this question? It's so funny. I don't know why they have a class where you take on that kind of a voice. But that was their argument that this was part of a training. It was opposite. Your honor, that's right. What they didn't say was this whole speech ended with him saying psych. The whole argument that this was like some sort of cosplay of like this persona that you're supposed to take on was just hilarious on his face. But they're saying this is part of a training. They literally said he was cosplaying Gordon Gecko. This was Google's lawyer's argument. Quote, he was cosplaying Gordon Gecko, obviously referring to the character from Wall Street, who was sort of an evil business villain. Which is a great defense if I'm ever caught saying something evil in the context of an antitrust trial. It is. I'll tell you this much. I'm looking up whatever this class is, and I want to take it. I think hyperbole class could be the greatest class I've ever taken in my entire life. I see what you did there. I'm going to use this as my defense if anybody have argued with me like this. All right. We've been having a lot of fun making fun of Google. At the end of the day, what I will say is like, I still don't know almost anyone who just chooses to use the Bing search engine. You sort of address this, Kevin, when you're like, maybe it's just better because it's bigger. And that's what we're really trying to get at here. But there's also a narrative that is being spun at this trial by Microsoft, which is that if it only had a fighting chance that Bing might be at least as big as Google. And I don't know. I don't think that they're putting their whole heart into Bing. You know, I think that they put some effort into it. It is hilariously an \$11 billion annual business, which makes it bigger than most companies, I would say. But it's also just not that good. I don't know. I mean, I think that this issue of the effects of scale and the built-in advantages of that, I think that is really an important issue for a court to hear because what we're talking about and what came out in this trial over the past couple of weeks is that this is not just an issue that is sort of backward looking, like how has Google gotten so dominant? It's also an issue that will continue to matter because of things like AI, because in AI, scale really does give you an advantage. If you have more user queries, if more people are coming and using your apps, your products, your services, putting their data into your systems, your language models will be better because they have a better training data set available to them. And so I think when Satya Nadella says what he said in court, quote, despite my enthusiasm that there is a new angle with AI, I worry a lot that this vicious cycle that I'm trapped in could get even more vicious. I think that's a real concern, not just for Microsoft, but for everyone who's concerned that Google has already gotten too big. If you think Google is dominant now, it could be even more dominant in a few years because of the built-in advantages that it has as a result of how big its search engine is. Yeah, I think that's a really good point. I would also just say that Microsoft has many, many other sources of data. They own Microsoft Office. They own Azure. They own Xbox. They have more data flowing their servers than just about anybody. But I think your point is well taken,

that this is in part a story about the future and that if Google is able to extend its dominance in search into dominance in AI, that might be something that the government has something to say about it. I mean, one takeaway from this trial so far, at least for me, and this is something I guess I probably could have learned without this trial, is that it really sucks to compete with Google. I don't know if it sucks in a legal amount, but it definitely seems like competing with Google in any of its core areas is really, really hard and something that I would not wish on even the most hearty entrepreneur. Well, I'll tell you this. We abandoned plans for a platform research engine very early on. We said, first of all, none of us even know how to code. We thought about emailing the FTC about that. Well, let me ask you this, Cecilia. What's coming next in this crazy trial? How much longer will it last? Yeah, so it's 10 weeks total. So six more weeks for a week four if it ends on time. And so right now, we're getting through the DOJ's witnesses. Then we go to the States and then we go to Google. Sundar Prachai is going to testify on behalf of Google as a Google witness. And that will be interesting to hear his defense. And then it's just going to drag on, to be honest. And what's going to happen is, well, wait a few weeks. Both sides will digest what happened over the previous 10 weeks. They'll come up with their closing arguments. The judge will take some time to come up with an opinion. It'll probably be 2024 early when this is all said and done. And then then that's when the real consequences potentially will be revealed. Let me ask you this. When Sundar testifies, what are the odds that he talks about how Google was started in a humble garage? Oh, I would say nine out of 10. Kind of like it's market share, 90%. Yeah. Just a couple of crazy college kids noodling around in a garage. Anyway, Cecilia, thanks so much for joining us. Great to talk to you. Thank you so much. Thanks for having me, guys. When we come back, AI is becoming wearable. We'll take a look at a few interesting projects. They have the Audi craftsmanship you're looking for. Along with the eye-catching Audi design, the roads to success are very stacked. You can get the driving license you desire. They even come equipped with the confidence of a century's worth of Audi expertise. And if you happen to get nostalgic, you can still take your Audi e-tron to a gas station for a drink or a snack. How you get there matters. And with five fully electric Audi e-tron models available now, getting there has never been easier. Audi, progress you can feel. Hey, it's Ben Frumann, editor-in-chief of Wirecutter. We put together the ultimate guide to make moving way less miserable, and I wanted to find out a few of our writer's favorite tips. When you move into your new place, it's not a priority to have everything to make a beef Wellington for your first night. But you are going to want a knife to make a peanut butter and jelly sandwich, probably. What do you recommend? Buy a mattress bag. You can carry a mattress more easily because the handles are built in, and it's going to protect your mattress from the truck and the street. Let's talk safety essentials. When you're first moving into your home, make sure that you change the batteries in your smoke detector. It just gives you a peace of mind, and you won't have to worry about the chirping sound that happens every minute or so.

I've gone to the grocery store for used empty boxes.

That's no good.

Invest in good boxes.

It will save you so much time and money.

Make sure you have towels on hand.

You don't want to end up taking a shower and using a dirty sock to dry off.

Yeah.

Whether you're prepping, moving, or settling into your new place,

let Wirecutter help you make a plan.

Come visit us at [nytimes.com slash moving](https://www.nytimes.com/slack/moving).

Casey, something is happening right now in AI that we have to talk about, which is this pivot to hardware.

Now, you and I have been talking about AI for a long time.

Usually it has to do with these large language models.

And now companies, startups, investors, they're starting to get ideas about how people might actually want to interact with AI

and whether some type of specialized hardware might be a good idea.

Yeah.

You know how like in a horror movie, sometimes an ancient evil will assume a physical form?

That's the moment we're heading into in artificial intelligence.

So I want to start talking about these AI hardware projects and ideas that we've been hearing about over the past week.

One is this project, the Rewind Pendant, which got a lot of attention on social media this week.

There's also something called the AI PIN from a company called Humane.

Then we've got these smart glasses from Meta that allow you to talk to Meta AI right there in your glasses frame.

And the fourth is this big collaboration between OpenAI and Johnny Ive,

the legendary Apple designer who are apparently teaming up to make the iPhone of AI.

So starting off with what struck me as sort of the craziest and most interesting one,

which is something called the Rewind Pendant.

The Rewind Pendant.

Yes.

As a side note, I love that like in the past year, we have heard about projects called the Orb.

The Sphere, which is this new building in Vegas that everyone's obsessed with, and the Pendant.

So all of my like sci-fi dystopian objects are now coming into fruition.

It's beautiful.

Yeah.

I would love to wear my Pendant and take my orb to the Sphere and finally live in the future that we always know would arrive.

I was at the Sphere and somebody asked me about my orb at Pendant and I said,

Hey, take me out to dinner first.

So this is a project from the company Rewind, which is a venture backed startup that does an AI sort of memory product,

which we'll talk about in a little bit.

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The Pendant is a little necklace with a little black cylinder hanging off of it that has a microphone in it.

And the idea is that it captures every conversation you have in the real world and then transcribes it and stores it on your phone.

So that you can basically go back and review conversations that you had a week ago or a year ago or 10 years ago

and have sort of a perfect replica of your conversations throughout the day.

Yeah.

Like, you know how police officers will wear those body cameras to discourage them from beating up innocent people?

Yes.

This is the consumer version of that.

So a lot of people got really upset when this came out.

I saw a lot of people on X basically saying, you know, this is literally a Black Mirror episode.

That's not hyperbole.

There was actually a Black Mirror episode early on in the show's existence about these people who wore these devices.

They were actually implants that like recorded everything that they heard or said and that they could review.

And people really didn't like this idea of being recorded at all times.

They said, you know, this is like everyone wearing a wire.

Can I just interrupt you right there?

Yeah.

It's like, it's not like everyone wearing a wire.

It's just everyone wearing a wire.

We don't actually need a simile.

It is just everyone wearing a wire.

My favorite post that I saw about this one was sauna business meetings are going to have a big comeback.

Is it worth explaining the joke that if you're naked in a sauna, you probably wouldn't be wearing your rewind pendant.

So in order to get privacy in a business meeting, you will have to do it naked in a sauna.

I thought this idea is really interesting.

This is something that we've talked about on the show before that I actually said.

I think half jokingly that I wish I had like an AI assistant that could tell me what I talked about with someone a week ago or two weeks ago and remind me of it.

And this is now becoming an actual product.

So it's still a very early stage product.

You can pre-order them for \$59, which is pretty cheap.

I have to say that's like cheaper than most hardware gadgets.

Totally.

I mean, the recording piece of this is not new technology, right?

We have microphones.

There are microphones in your AirPods.

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There are microphones in your Apple Watch.

The idea of a wearable microphone is not expensive or hard to do.

What is new is sort of the AI technology that allows you to store and search and make use of that data once you have it.

So on its website, Rewind listed out some potential use cases for this pendant.

For example, if your spouse asks you to pick something up at the grocery store and you forget what it is, you could go back in your Rewind database and say,

like, what did my spouse ask me to pick up at the grocery store and it would be able to sort of search your transcribed conversations and figure that out.

Yeah.

Instead of just texting your wife and saying, what did you ask me to get at the grocery store?

You can just wear a surveillance device and ask the surveillance device.

And then that spares you from having to interact with the person that you love the most in your life.

Okay, let me get through this list before you start going off on this idea.

So it could also help you bookmark moments for later.

Like if someone says something profound and you want to say, like, I want to come back to that later.

I would never use this when talking to you.

But for my other friends, maybe they would share something profound or interesting.

Or you could just go back and capture moments from your life, like your kids' first words or cute things that they say.

But they're really billing this as a productivity tool.

I talked to the CEO of Rewind, Dan Soroker, about this idea.

And he really said this is meant for people to sort of be more productive.

You know, you're sitting in a meeting, someone says something, you want to go back to it.

You have a transcript that's stored on your phone.

And he also said that this is a device that he is building with privacy in mind.

This did not come across to a lot of people who saw this idea and immediately thought, well, the entire world is just going to be bugged now.

But he said that they're building in privacy features from the start, including,

and I thought this was interesting, a voice signature feature so that basically people would have to consent verbally

to being recorded if you are wearing a pendant in their presence.

So because this AI technology now exists to identify speakers, it could, for example, record only your part of a conversation

or the people in your life who have already consented verbally to being recorded.

And it could essentially delete the recordings of everyone who has not consented.

That's great because that way when you're recording your baby's first words,

their first words will literally have to be, I consent to my data being used by an AI startup.

That is so beautiful. Wow. Wow. That's so cool.

So I take it based on your reaction that you are not one of the people who pre-ordered this device.

I didn't pre-order it and look, I do have a lot of concerns about building a Panopticon,

but those are tedious and not fun to talk about.

So let's just set those aside.

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I actually don't think that this will enable productivity in the way that these people are selling. Why not?

Because I think that a huge part of being a productive person, a creative person, if you're a knowledge worker, there's this filtering process that takes place. You have a conversation with one of your friends who's more interesting than me. You walk around a little bit. You think on it. You wake up the next morning and two things have been distilled in your mind. And that was the useful part of it.

What this thing is doing is it is generating vast quantities of data.

And then it is going to use some AI to attempt to guess on your behalf what part of that might be most interesting to you.

But my guess is you're going to spend a lot of time going through this data yourself and you're just giving yourself a problem, right?

You're giving yourself vast transcripts of all these conversations that you're having and for what purpose so that you can go back at the end of every day and review everything that you've said, searching for nuggets.

I do think that in this case, you are better off trusting your human intuition and just sleeping on it, waking up the next day thinking, well, what was interesting about that?

And if something really, really interesting happens in your life, you already have the option of recording a little voice memo or typing a note on your phone. So to me, that seems vastly superior than a device where we're going to have to create vocal signatures

and potentially violate two-party consent, recording laws, and all the rest.

What do you think about it?

So I share some of those concerns. I'm a little more open-minded about this.

I think that there are people who will want this kind of...

This is not a new idea.

I think a few years ago, people started talking about life-logging, which is sort of this movement of people who want to capture everything they say and do and sort of store it for future use.

And I can see, for example, my dad was a big sort of video guy.

He had like a camcorder when I was growing up, and he used to sort of not life-log every moment of our childhoods, but like, you know, I have a lot of home movies from my childhood that I really like going back and watching.

I really like the fact that those memories were recorded, and I can see a version of that being useful.

What I do worry about, though, is I actually think it's a good thing that we can forget some things.

And I'll tell you why.

A couple years ago, I went back, I was cleaning out my mom's basement, and I found a floppy disk that contained logs of a lot of my old instant message transcripts from middle school.

Oh, wow.

And, you know, I had this moment where I thought, do I really, well, A, can I find any way to get at the contents of a floppy disk?

So you drove over to the Computer History Museum.

So I did actually find a floppy drive.

And I looked at these things.

I was like, oh, this is a piece of my personal history that I did not know that I had recorded at the time, that I was excited to go back and look at.

And it was kind of painful to go back.

My memory had done me a favor in hindsight, and it sort of papered over some of the more painful episodes that happened in middle school, and maybe changed them to be like less painful.

And going back, I was sort of confronted with the harsh reality of what it was like to be like a pimply seventh grade boy again.

And it wasn't a good experience.

So I actually think like digital memory, this kind of perfect recall, it's something that sounds great.

But for a lot of people, it's maybe actually not going to be so fun.

Yeah, I very much agree.

I think it is good that we forget some things.

I think being able to tell yourself a new story about your past is often the only way to move on and live the life that you want to live.

So yeah, I agree with you.

I will say I don't think the privacy concerns are overblown.

Let me take a step back.

A lot of what tech companies try to do is reduce friction in our lives.

And this can be a great thing.

The fact that when I want to listen to a Radiohead song,

I just open up Spotify and I'm listening to it within seconds for like \$11 a month.

That's one of the greatest things the tech industry has ever done for me, right?

There are other cases though where you do want a little bit of friction.

And in this case, it's like, I want to take a photo of you,

but in order to do that, I need to get a thing out of my pocket.

I need to open it up.

I need to press a button.

It only takes me two seconds, but it's just enough that I don't take photos of every single thing around me.

That winds up creating a lot of privacy protections for other people in the world, right?

Similarly, if I want to record a voice memo, very easy to do.

I just have to get a little thing out of my pocket.

I have to press two buttons and it doesn't take any time at all,

but it does wind up creating a lot of privacy protections for me and everyone I love.

[Transcript] Hard Fork / Google's Trial Heats Up + How to Wear A.I. + It's Our Birthday!

So as more folks try to eliminate all friction around the capturing of photo and video and sound everywhere,

I just really want us to think about what we are giving up when we were doing that and in exchange for what?

Okay, so this rewind pendant is not the only AI wearable that has been in the news over the past week.

There's also something called the AI pin that was showed off by the company Humane, which actually appeared on the runway at Paris Fashion Week.

It's a little square and it hasn't come out yet, but this is sort of a preview of what this thing is going to look like.

It is a standalone smart assistant that attaches to your clothing via a magnet and can be worn pretty much wherever you want it.

It doesn't need to be paired with a smartphone.

It includes AI-powered optical recognition and a laser projected display.

Yes, and we have seen a little bit of what this thing can do

because one of the Humane co-founders gave a TED talk earlier this year where he showed off himself taking a phone call

and the way that he did this was that the pin projected onto his palm

that I believe his wife and the co-founder of Humane, Bethany, was calling and he was able to sort of answer the phone that way.

Right, so this is a little bit different concept.

This is not like recording everything you say.

This is like using your pin as kind of a personal assistant that can actually like put a phone onto your hand.

Like he literally just held out his palm and there was like a phone on it and he could sort of interact with it that way.

Yeah, we should say it's not 100% clear from the video that this call was real and not just a demo.

But I think before I say anything, Kevin, what was your reaction to looking into the AI pin?

I do think it looks kind of cool.

I mean, it looks like an Apple device and the founders are Apple veterans.

So that kind of makes sense.

I guess they're going to unveil it on November 9th.

So we'll see pretty soon what this technology actually looks like.

What did you think of it?

Well, as you say, we need to find out a little bit more about this thing.

I'll look forward to hearing the full set of features.

And you know, we should also say that the people working on this have some great credentials.

They've raised a lot of money.

They've been working on this for a really long time.

All that said, I look at somebody answering a phone call with like a projection on their palm and I just think, why?

You know, like it seems to me we have a really good way to answer phone calls.

And I don't know that like, you know, just imagine that you're on the beach and you're just hoping that like the projection on your palm isn't being so washed out by the sun that you could figure out if

[Transcript] Hard Fork / Google's Trial Heats Up + How to Wear A.I. + It's Our Birthday!

you actually want to answer the phone call or not.
The phone call thing is the least attractive part of this to me.
But I do think there is something that is novel and important about these devices.
We've been talking about chat GPT and other AI tools that are now letting you converse with them in natural language like a voice assistant.
And I do think that there will be some version of this that people want to wear or have on them that is not a phone, right?
I mean, in the sort of movie her, it's these like earbuds that you wear that connects you to your AI assistant.
The humane pin what we saw out of the demo at TED was that not only can it project a phone onto your palm, but you can like ask it questions.
You can show it things because it has a camera and AI vision technology.
So I think in the demo, the founder like showed a chocolate bar and said, like, can I eat this?
And it said, like, no, you have a sensitivity.
So don't eat this.
Like that kind of thing could actually get used, I think.
Yeah, all of this seems really interesting in a world where smartphones don't exist, right?
It's like you haven't named one thing that I have been able to do with my iPhone for like 10 years.
But here's what I will say.
I agree with you that are going to have AI powered devices that we can wear.
I do think that they will be big sellers and I do think that I personally will find them useful.
I just don't think it will be these two things we've talked about so far.
OK, so let's talk about two other projects that have bigger company names attached to them because these might be more likely to actually materialize.
The first is Meta, which along with all of its VR and AI announcements last week at its Connect conference also announced the next generation of its Ray-Ban glasses, which come integrated with Meta AI.
Have you tried these?
I have tried them, actually.
How was it?
So they look like Ray-Bans.
They're a tiny bit heavier.
They have a camera in them.
So if I were wearing them right now, I could press and hold a button on the arm and they would take a picture of you.
It also takes video.
They have microphones as well.
They can play music and it's sort of interesting because you're like not wearing your earbuds.
You just sort of hear the music coming out of the speakers that are inside the glasses and, you know, for like Ray-Ban speakers, they're not too bad.
But the AI promise of this device is that you will just sort of be able to ask questions of the Meta AI much like you might ask a chat GPT and then you will just get an answer delivered directly to your glasses.
So this I actually think is interesting because it is removing friction in the right way.

[Transcript] Hard Fork / Google's Trial Heats Up + How to Wear A.I. + It's Our Birthday!

Let's say I'm in New York City and I'm walking down the street and I'm trying to figure out like, hey, you know, I'm in this neighborhood like how far is it to here?

I don't want to bother getting my phone out of my pocket because I don't want to look like a tourist in front of all the cool New Yorkers.

And the Meta AI will just be like, oh, well, you know, that neighborhood is a mile away and, you know, just walk up this street and you'll get there.

That seems good to me, right?

Like this is saving me time without creating a surveillance nightmare.

Yeah.

And I think it's important to say these are not glasses that have sort of like a visual component to them, right?

You don't see anything. There's no heads up display.

So you're just hearing the AI sort of talk with you as if it were in your earbuds or something.

But the feature that is not in earbuds is the camera and the ability to not only take pictures but also to live stream to Instagram and things like that.

I don't think that is going to be the killer feature.

I don't think there are a lot of situations in which you would want to be live streaming, but you wouldn't want to have your phone out.

Kevin, I am desperate to live stream an episode of Hard Fork while we wear our Meta Ray-Ban glasses.

You would do it?

You would do it? Okay, great.

Well, let's talk about that offline.

So speaking of big tech platforms, we also learned recently that OpenAI is spinning up a hardware project.

OpenAI CEO Sam Altman is apparently in talks with Johnny Ive, the famous designer from Apple. FT reported in September that OpenAI is in advanced talks with Johnny Ive to build, quote, the iPhone of artificial intelligence.

So we don't know exactly what they are building.

I don't know if they know what they are building yet.

But OpenAI, the company behind ChatGBT, does want to make a big play in hardware.

Was this surprising to you?

I mean, I definitely can't say that I saw it coming.

I think it raises the question of why exactly does AI need a dedicated form factor?

I think there's probably a good answer to that question.

I don't have a great handle on it.

You know, as I kind of daydreamed about what this thing might be like, I thought, well, in a world where you have like an artificial general intelligence, something that can just basically do just about anything, maybe you just don't need as many apps on your phone, right?

And if you don't need apps in the same way that you might have needed on the iPhone, then maybe you just wind up building a very different sort of device that goes in your pocket.

So I mean, I don't know.

Again, we know nothing.

[Transcript] Hard Fork / Google's Trial Heats Up + How to Wear A.I. + It's Our Birthday!

So I'm just purely speculating.

But I think taking on the iPhone is just the sort of audacious challenge that I wonder if even Sam Altman and Johnny Ive have the stomach for.

So I'll be very curious to see what they're going to do.

But I can't tell you sitting here that I have a good instinct about what it's going to be.

What about you?

Well, so I understand why these companies are trying to build dedicated hardware, even though hardware is notoriously hard and expensive.

And a lot of companies, including companies like Amazon and Meta, have failed at building phones to compete with the iPhone.

I think everyone wants to get out of Apple's universe.

Every company knows that it has a dependency on Apple.

You have to play by its rules if you want to be in the app store.

This is something that has frustrated Mark Zuckerberg for many years.

So I understand why he wants to build the next great hardware platform because then he can control it and not have to play by Tim Cook's rules.

I also think I understand why OpenAI is interested in this.

They have built something that has captivated millions and millions of people, but its interface is still kind of janky.

It's a text box on your phone or your computer.

It's a voice assistant now as of last week, but it still doesn't feel like it sort of exists in a product that was designed for it.

And so I think you're just going to see a lot of different companies trying a lot of different ways to give this AI a form that actually feels natural to it.

My worry about this, and this is how I am sort of pledging to evaluate all AI wearables, is do they make me more or less present in the world?

Because there are some technologies that I think I would say have made me more present in the physical world.

Like I swore for years that I didn't need an Apple watch.

People kept telling me these things are cool.

I sort of resisted because I was like, I don't need one more gadget that I have to charge and remember to bring with me.

But then I realized, you know what?

There are times when I don't want to pull out my phone because I'm in the middle of something or I'm spending time with my family or it's just something that I don't want to interrupt.

But I would like to know if something urgent is happening that I need to pay attention to.

And so I can glance down at my watch.

It's a one second interaction instead of a 10 or 20 second interaction.

And then I can get back to whatever I'm doing.

So I actually think the Apple watch is something that makes me more present in the world with something like a pendant or a wearable or a heads up display.

I can see those as making me less present in the world.

And that's not something that I'm looking for.

Yeah. I mean, that's my fear too is that once you have that heads up display and you just get like a

text message.

Well, now all of a sudden, no matter who you're talking to, you're reading that text message, right?

So I do think that's going to be a challenge for them.

Totally.

Okay, so we have to talk about the AI wearable that I am wearing right now.

The whoop band?

Yes.

Tell me about the whoop band.

Okay. So this is something I'm testing this out.

And it's a thing that has existed for several years.

It's like a sleep tracker band.

Okay.

So it tracks your sleep.

It tracks your exercise, things like that.

It's basically like a gussied up Fitbit.

But as of a week ago, it also has a chat GPT integration where you can now have your whoop coach sort of give you personalized feedback and answer your questions.

You have a whoop coach?

I do.

I have a whoop coach.

Your whoop coach is just like, go to bed earlier?

So basically the way it works is, you know, you wear all day, it tracks your activity, tracks your sleep.

And then every morning you get like a report about how you did the last day.

And this has been very stressful for me because I'm not a good sleeper.

You're obsessed with technologies that make you feel bad about yourself.

It's true.

It's really interesting actually.

So every morning I wake up, I pull out my phone and I get a detailed summary of how badly I slept the night before.

It's like, you only did, you know, 30 minutes of REM sleep and your recovery score is a 32%.

You're basically, you're going to feel terrible today.

Right.

So I get that.

That's the way I start my day.

But now I can ask my whoop coach questions about that.

You know how I sort of gather intelligence about how I slept last night?

How?

I just wake up in the morning and I say, well, how do I feel?

And if I've slept a lot, then I feel better and I've slept a little, I feel worse.

But I actually don't need a coach to tell me that.

Well, maybe you should try this whoop coach because I am getting a lot of fine grain insights about my lack of sleep.

But are you getting any better at sleeping?

No.

Okay.

But I've only been using it for a couple of days.

So I need more time because over time it does get to know you a little bit better because it has more of your data.

And you can ask it more personalized questions.

So for example, today, I did not get a lot of sleep last night.

We had this event last night that kept me out late and I had to do some work.

We should say we went out last night.

We did.

Yeah.

We partied a little bit to the club.

Yeah.

It was a good time.

Yeah.

Not the club.

It was a restaurant.

It was a restaurant.

Lovely dinner.

But I was feeling good this morning when I woke up and I was like, that doesn't make sense.

I didn't get much sleep.

Why do I feel better today despite having gotten less sleep?

I said, great question, Kevin.

Your feelings of well-being can be influenced by several factors.

Not just sleep.

Here are some things to consider.

And then it gave me a list of my recovery.

And then it said, even though you slept less today, your sleep efficiency was high at 93%.

Okay.

This is just making things up.

Your sleep efficiency.

My sleep efficiency.

What you have in your pocket is a random word generator.

Okay.

I don't think this is telling you anything.

The only useful whoop band would be one that just injected you with a mild sedative each night when you got into bed.

And if they build that, I'm interested.

Until that, you can keep it.

Well, I'm going to reserve judgment on my whoop band at the whoop coach until I've had a little more time to try it out.

It's also become clear to me that 80% of you buying this was just, you like saying whoop band.

I also think it looks kind of cool.

Well, I will say, I also really like saying whoop band.

Yeah.

All right.

You remember whoop there it is from the tag team in the early 90s?

Yeah.

That might have been one of the first hip hop songs that I actually memorized.

Wow.

Yeah, I could do the whole thing.

Please do.

Let's go.

Tag team back again.

Rex in effect.

Oh, and I've already lost it.

But yeah.

Here's what I can tell you.

It starts by saying tag team back again, which was ironic because it was the first song of theirs I'd ever heard.

Yeah.

Yeah.

When we come back, it's our birthday.

Hear that?

That is the sound of a new era of work.

Listen.

Great, isn't it?

Because now with the HP Elite Dragonfly with noise cancellation and Intel Core i7 processor, you can meet quietly, even when it's loud.

Ah, the HP Elite Dragonfly with noise cancellation HP.

Visit hp.com/slash/work/happy.

Well, Kevin, it's one of the most special days of the year.

What day is it?

It's Hart Fork's birthday.

That's right.

It's our birthday.

We launched a show a year ago on October 7th, 2022.

And this is actually the 50th episode of Hart Fork.

That's amazing.

And I think the most important thing that we want to say is thank you to every single person who has listened to the show, who has emailed us about the show, or who has come up to us on the streets and said that they like to listen to the show.

Yeah.

It's amazing.

We are one year old today and I did actually bring us some birthday presents.

Really?

Yeah.

Okay.

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Here's a hat that you have to wear.

This is a beautiful, this is a pointy hat that is made out of paper and it says happy birthday on it.

I also got you a party favor, like a little birthday horn we can blow.

Love the horn.

I also got you some happy birthday sunglasses.

Oh my God.

He's so excited.

I'm so excited.

He's knocking over the equipment.

Wonderful.

All right.

We have to blow our horns.

One, two, three.

Happy birthday, Hart Fork.

Happy birthday, Hart Fork.

So, Kevin, on the first ever episode of Hart Fork, we did something called the Transparency Report, which was kind of a joking nod at these reports that the Big Tech platforms do, where they sort of say, here's all the bad stuff we removed from our platform this year.

I think for us, it was sort of a chance to tell listeners, like, here is where we're coming from.

Here are some things that we believe.

So, as you listen to our show, you just kind of know a little bit about how we see the world.

And at the end of it, we're like, well, we might do that again sometime, and then you went by.

I'm sorry, I can't take you seriously.

Why?

You're with the glasses.

Kevin, I'm one of America's foremost technology journalists and I demand to be treated with respect.

I demand to be treated with respect.

Oh, you look great.

Thank you.

Oh, my God.

I'm so glad I went with the sunglasses.

Yeah.

It's a fun look for me.

It was either that or a birthday princess tiara.

Which I would have worn that just as proudly.

So it is our birthday, and we're feeling a little bit reflective today.

And so I think we should do sort of an update on what we've learned and maybe how our views have shifted over the past year.

And by the way, Kevin, we have a Transparency Report theme.

We do.

I forgot about that.

You hear that theme, you just want to be transparent with people.

So here's what I have learned over the past year, Kevin.

The first thing is that people are often much more open-minded about new technology than I tend to be, and that I think maybe a lot of other reporters tend to be.

I was thinking about some of my favorite moments from the past year, and I remember the episode where we asked people to talk to us about how they were using ChatGPT.

Maybe my favorite episode of the past year.

And we were so surprised by how creative and clever our listeners had been.

There was one listener who was using ChatGPT to do some very complicated meal prep in a very short amount of time.

There was another listener who was using ChatGPT to get affirmations about their gender.

And they were just so curious about how to use this technology.

As reporters, our job is often to walk around sounding alarms and warning people about the worst that can happen, and that's an important part of our job, and I don't think you or I will ever stop doing it.

But doing this podcast has reminded me that people also like trying new things, and they like having fun, and that technology can bring both of those things.

And so that is something I've learned over the past year.

Yeah, I really love that because it is true, and I was actually similar to something that

I wrote down, but I think there's this sort of knee-jerk reaction that people sort of feel like they have to make when something new comes into their lives.

It's either good or it's bad.

It's either utopian or dystopian.

And I think what we've seen and heard from listeners is just this sense of like, after that first reaction, they're curious.

They want to know more about it, how it's going to affect their lives, what are the decisions that are going into the product or the service that are going to impact how it shows up in the world.

And I love that sort of phase beyond the initial sort of, is this good or bad phase?

All right.

The first thing that I have learned from a year of making this podcast is that tech is emotional.

Now, I think this is another thing that we often get wrong as reporters because we're so enmeshed in the businesses of these companies and who's up and who's down and who's getting market share and who's losing it and who's stock prices up and who's stock prices down.

But some of the segments that we've gotten the most positive reaction to over the past year have not been about the business of tech at all.

They've been things like my experiment with my phone box and some of the stuff that we have tried in our own lives to sort of get technology to a better place when it comes to our own interactions with it.

Some of the interactions that you mentioned around how people are using chat GPT in ways that are unexpected and delightful.

Some of the stuff around teachers and how they feel about the use of AI and the classroom and even some of the executives that we've interviewed about their products or safety experts that we've talked to about how AI could damage us in some way.

These are deeply emotional topics that interact with some of the most core experiences that we have as human beings.

And so it has been a real lesson for me that sometimes what people want to know is which companies are up and which companies are down.

But a lot of times they want to know, how does this stuff make us feel?

How should it make us feel?

What is this going to mean for our daily lives?

And by the way, I think that winds up being a conversation that is very well suited to a podcast.

It's actually much easier to have that discussion on a podcast than it is to do in a good old fashion article.

Totally.

Why is that, do you think?

I think that voices just carry emotion and words don't.

I mean, obviously I've oversimplifying words carry emotion, but there is just something very visceral about hearing a person's voice.

There's an intimacy to it that is just very hard to capture in print.

Totally.

I totally agree.

All right.

What's your second lesson?

Lesson number two.

If you're subject, you can talk about on a podcast are cars and bikes.

Oh boy.

It's true.

We have gotten so many responses to everything we have ever said on this podcast about any mode of transit.

You know, recently we interviewed the activist, the Safe Street Rebels, and there was this whole discussion about should they sabotage the self-driving cars in the city.

And frankly, we're still hearing about that episode today.

We were too mean to the activists.

We weren't mean enough.

But in any case, this will be the last time you hear the word bicycle or car or hard-fork podcast.

I'm not emotionally ready to continue the conversation.

We did get a listener emailed the other day that said that we should do an episode about e-bikes.

And I recoiled when I saw that I was like, I had a little bit of like a trauma response to that.

Yeah.

Not until they turn the studio into a panic room.

We'll be talking about e-bikes.

Okay.

My second lesson from the last year of making this podcast is that the hardest balance in podcasting is between structure and spontaneity.

This is a little sort of behind the scenes.

You know, it might just seem like we're showing up for an hour every week and just gabbing. But there's a lot of thinking and planning that goes into making this podcast or any other podcasts.

And something that we've sort of wrestled with since we started this show is how do we make this podcast feel as authentically spontaneous as a conversation between two friends.

But some of our early experiments with that actually had too little structure.

You actually do need to do some planning.

What are we going to talk about?

What kinds of ideas do we want to raise?

Who are we going to interview?

Those things turn out to be very important.

And so I don't know that we've nailed the balance yet, but we're working on it and we're experimenting.

Yeah.

You know, every podcast begins when a person thinks to themselves, I love the sound of my own voice.

And if I could just somehow capture that, I think a lot of other people would be interested. And our podcast began not in a way very different from that.

But when we tried to just talk and not prepare beyond a handful of notes, the episodes just weren't as good.

And so I feel tremendously indebted to our producers and our editors for helping us think through what do we want to say?

What are the questions we want to ask?

And I do think it makes the shows much better.

Yeah.

And just for a little bit more transparency, I mean, the way that we do this show is that we meet every week with our team and we put together a list of the topics that we want to talk about that.

We go back and forth.

What are the, you know, what are the most important stories in tech this week?

Who are the people we most want to interview?

We get ready for the show in a way that like sometimes people will say, oh, like the podcast sounds so fun.

It must be so easy.

You just show up and you talk.

And it's like, well, yes, but that's only possible to do in that spontaneous and fluid way because a lot of preparation has gone in on the front end.

Yeah.

But you know, something that I'm proud of, and I'm not sure how related this is to what you just said, but everything that we have talked about on the show is something that we sincerely want to talk about.

Yes.

And sometimes I listen to other podcasts or news shows and I think the person who's telling me about this right now, they're kind of checked out a little bit.

They do not care.

They're talking about it because they feel like they have to.

They're talking about it because they feel like it's the big story of the week.

And there are times when we have passed on some of the big stories of the week because we thought, well, we just don't have that much to say about that.

So one of my favorite things about this show is that we have the freedom to bring into this room the stuff that is making us feel excited to talk about it.

Totally.

All right.

What's your third lesson?

The final thing that I have come to believe over the past year is that we are living through a time of profound change driven by technology.

I've been covering technology since 2010.

When I landed in San Francisco in 2010, it also felt like that.

We had sort of just gotten these smartphones, new apps were popping up every day that were changing how we moved through the world, how we got things done.

And it was really, really exciting.

And then we sort of entered this more fallow period where it felt like everything was just kind of mature and we were just catching up to the changes that had been wrought in the early 2010s.

But man, over the past year with the arrival of this AI stuff, I am just shocked every week by how fast my own knowledge about this space is getting outdated, right?

I talked about this a bit last week about I sort of thought I understood what was going on with chat GPT, but it's like, no, I hadn't been using chat GPT for and so I was really missing a lot.

So if you feel disoriented and bewildered by the changes that you're reading about or maybe even experiencing in your life so far, just know that I feel that way too.

And that one of the reasons we are doing this show is to kind of catch each other up and to try to train our attention on these changes that are just coming so, so, so quickly.

So that to me, it really is the biggest lesson of these three is just, wow, we are sort of in lift off in a big, you know, potential change.

100%. And it's very disorienting.

And I've had to sort of acclimate to this feeling of, I call it like radical uncertainty, this idea that like, I just don't know what the world is going to look like a year or two or five years from now.

And for someone whose job it is to try to like help people navigate that, that's a very disorienting feeling for someone who wears a whoop band to try to understand his sleep efficiency score.

[Transcript] Hard Fork / Google's Trial Heats Up + How to Wear A.I. + It's Our Birthday!

This is maddening.

Exactly.

And my last lesson from the last year of making this podcast is that journalism is best as a team sport.

This is something that I have actually changed my mind on because, you know, for many years I have been writing my column and it's been, you know, I've had some opportunities to collaborate with people, but mostly it's me.

It's me and a screen.

And I write and I send things to my editor and they get edited and then they get published.

And it's just, it's been a very solitary experience.

And I thought that I liked it that way.

And then we started making this show and it has been just so wonderful at the risk of being sincere for a moment.

It has totally reinvigorated my approach to journalism, not just having you as sort of a sparring partner and someone who challenges me to be a better journalist, but to work with the amazing team at Hard Fork, I really am just so grateful to Davis and Rachel and Jen and Caitlin and Paula and everyone else who has helped us make this show.

It truly has been a team effort.

And so whenever people say, you know, love the show, I always try to give credit to the people who help make it happen.

And I have really become convinced that journalism is better when you do it with other people.

Yeah, absolutely.

We have an amazing team and I'm so grateful to you for everything that you've brought to the show as we've put together and put it out in the world.

Recording these episodes truly is the highlight of my week.

And I'm just so excited to see what we can do in year two.

Totally.

And I would also include it in that list, and you said this before, but all of our listeners, I mean, that has been a really bright spot in this year is getting to know some of the people who listen to this show through your emails, your voice memos, your social media posts.

And we really do love all of our forkers out there, and we will continue to try to make the show as good as we can for you.

So please keep listening, you know, leave us a review if you feel like it.

But really what I want to say is just thank you for listening and for letting us be in your ears for an hour every week.

Yeah.

And by the way, you're going to keep being on the show, like highlighting your comments, your questions is one of our favorite things to do.

And so the hard fork listenership is always going to be a main character around here.

Yeah.

We love you.

Happy birthday to all of us.

All right.

[Transcript] Hard Fork / Google's Trial Heats Up + How to Wear A.I. + It's Our Birthday!

Let's blow out the candles.

All right.

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Hard fork is produced by Rachel Cohn and Davis Land.

We're edited by Jen Poyant.

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Today's show was engineered by Chris Wood.

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You can email us your birthday wishes at hard fork at [nytimes.com](mailto:hardfork@nytimes.com).

Sergeant and Mrs. Smith, you're going to love this house.

Is that a tub in the kitchen?

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