Marielle Segarra: So when I woke up this morning, I opened my fridge and it's just broken.

Kai Ryssdal: Oh, God. That's horrible.

Marielle Segarra: Yeah, it's really bad. Like, just listing the contents of my fridge. The now dead contents of my fridge.

Kai Ryssdal: Oh, my goodness, hey everybody. I'm Kai Ryssdal. Welcome back to Make Me Smart, making today make sense is what we do. Thanks for downloading the pod.

Marielle Segarra: Yeah, I'm Marielle Segarra, in for Molly Wood. It's what do you want to know Wednesday, which means it's the day in the week when we get to answer the questions you send in.

Kai Ryssdal: And we had a boatload, a variable boatload of questions about our episode from Tuesday on decentralized finance, right. Basically a way to do finance using, sometimes using blockchains, sometimes not. But without intermediaries like banks. It's supposed to be faster, maybe cheaper when you cut out that middleman. But there's less regulation, thus more risk. So we're gonna do a bunch of questions about that for the next 15 minutes of our lives. So here we go. First follow up question comes from Kenneth in Wisconsin. Here's what he writes. Your guest mentioned that $93 billion in transactions occurs annually. Can you provide some examples of what those transactions might be? Please make me smart. Well, Ken, so, so here we go. When we talk about decentralized finance, right, we're talking about getting away from a bank, okay? There are people who are doing those transactions, using decentralized finance, and trying to get away from a bank. There are also defi versions of bank accounts, networks where you can deposit money or an interest, they make loans, there's trading, there's a bunch of stuff. But it's all super, super new. Right? And I'm gonna say this again, this is largely unregulated, whether it's Bitcoin, whether it's take your pick, it's all the transactions you can conceivably think of that use the banking system, but moving away from banking. Right? So I would say we are still very much in the caveat inventory phase of decentralized finance. I don't know. That's my, that's my take.

Marielle Segarra: Yeah, what I was trying to wrap my head around was just like, so there's really no intermediary here. It would just be through Ethereum or, or what is Ethereum? Is it a network, a platform? Like, what's the right word?
**Kai Ryssdal:** So ether is the actual cryptocurrency attached to Aetherium, which is the, the, the underlying technology. And if ether actually, in Aetherium, let you do a whole bunch of stuff that Bitcoin doesn't, but that's a whole different kind of episode, things like smart contracts, and all those kinds of things. But, but, but that's how, that's let me, let me see if I can make sense of this. There are cryptocurrencies and then there are the underlying technologies like Aetherium, like the blockchain, and like those sorts of things, and that's where the promise lies, right? For the instantaneous transfer of money. If you go to the five and dime, and you pay, you know, 14/1000 of a Bitcoin for a candy bar, that is transferred instantaneously through the blockchain, from you, to the vendor. Okay? It's not like banking, where it has to go through the like, if you're writing a cheque, it goes through the Federal Reserve, believe it or not, the Federal Reserve is the check writing Clearinghouse in this economy. It's instantaneous, and that's the promise. Right? The disintermediation is the promise. The challenge, of course, is that we haven't yet figured out the systems. We haven't yet figured out the infrastructure. That's it.

**Marielle Segarra:** Yeah. Okay. Cool. Here's our next question, which comes to us through the make me smart hotline.

**Reed:** Hi, Kai and Molly. This is Reed from Seattle. Am I missing something about traditional money transfers? If you pay me through Venmo, that money is instantly available for me to spend. There may be some delay in the background, but as a practical matter, that money is mine seconds after it is paid to me. Thanks for making us smart.

**Marielle Segarra:** Yeah, so one of the selling points. Right.

**Kai Ryssdal:** Such a good question.

**Marielle Segarra:** I guess, right, I would say that decentralized finance is supposed to be fast or faster, but, than banks. But yeah, specifically about Venmo, Venmo is not an example of decentralized finance. Because if you're using a Venmo account, you have to connect it to a bank account or a debit card. So there is a financial middleman to actually make that transfer. And if you have access to Venmo or Paypal or a service like that, you might get your money pretty quickly. But you also might not because the service can hold on to your money for a few weeks, if they see the transaction is like, risky, there are certain words that they can, if they see it in your description of the transaction, they might flag it, maybe it's an illegal thing. So they act as a backstop to that. And also, if you want to transfer your money into your bank account from Venmo, it, that can take a couple days as well. You know, but there are plenty of people who don't think of the banking tools we currently have as necessarily fast either. So here's Gill Luria, a technology Strategist at D.A. Davidson.

**Gil:** The consumer finance tools available to US consumers are not a universal experience. While two people in the US can easily and cheaply move digital money back and forth, that is not true if you try to send money to a relative in, say, the Philippines or Nigeria, not to mention a digital transfer between two people in those countries.
Kai Ryssdal: So yeah, you're right. Yeah. And that's exactly what I was gonna say, you keep going. You're on a roll.

Marielle Segarra: Yes. Be it is one thing that, about banking tools, that that doesn't work for everything, for everyone, that is. And another issue I think that, that people think decentralized finance could help solve is just the cost of sending money, for instance, abroad, because there are often fees tacked on to that. And some say that in decentralized finance, that you could go without those fees.

Kai Ryssdal: Yeah, here's, here's the other thing. I just want to pick up on something that Gil mentioned, right? This idea of digital money, right? Digital currency. Digital money is not decentralized finance. Okay? Because, number one, central banks are getting into digital currencies. We've talked about it before on the podcast, that Federal Reserve is, the central bank in China is, right. And they will definitely not be decentralized, they will not be getting themselves out of that equation. But just because you can do it digitally doesn't mean it's decentralized finance. Venmo is not decentralized finance, you've got to go through a bank, even though it's digital. And that's a key thing to wrap your brain around this.

Marielle Segarra: Yeah.

Kai Ryssdal: Yeah, it's easier, but it's not, it's not decentralized. Anyway, speaking of making it easier to move money from point A to point B, it is a great segue to this question about money laundering.

Laurie: This is Laurie from Tampa, Florida. I listened to your episode on decentralized finance. While I can't argue that banks have lots of issues and prevent a chunk of the population from having accounts, they do perform an anti money laundering function, trying to keep money away from the terrorists, human traffickers and other bad guys. How would AML screening be done in more widespread, decentralized financing. Thanks for making me smart.

Kai Ryssdal: Yeah, that's a great question. Right? Because the, the rap on Bitcoin and crypto writ large, which is sort of the vanguard of decentralized finance is that really, what are you going to use this for except maybe to evade taxes and blackmail and ransomware and money laundering, right? And, and in point of fact, we know that, the feds know it too, the Treasury Department pointed out that a lot of the recent ransomware attacks have been asking for payment in Bitcoin. There is sanctions related guidance from the crypto industry, from, for the crypto industry from Treasury. I will also say that Gary Gensler, the head of the SEC, is very crypto savvy. And while money laundering is not in the Securities Exchange Commission's bailiwick, they definitely know Gensler does for sure how to use that stuff. And so he's going to be keeping an eye on that one. There is guidance coming out tomorrow from the Financial Action Task Force on money laundering, global organization devoted to fighting money laundering, about how countries in the private sector can be in compliance with their standards. So yeah, that's a great, great question. And, and it is one of the many issues with crypto and defy that, I think people, which is to say the rest of us, need to wrap our brains around for sure.
Marielle Segarra: I mean, anytime there's something new, like a new way of approaching something we've been doing forever, it can sound super promising, but raises all these other issues, like potentially money laundering or illegal activity. But then also, what effect does it have on climate change? Right, like, so we have a voice memo from a listener who probably heard yesterday's deep dive on the carbon tax.

Eva: This is Eva from Birmingham, Michigan. During the defi interview, it was mentioned that a defi system would be run on blockchain. Does that mean that it would have a large carbon footprint like Bitcoin? Thanks for making us smarter.

Kai Ryssdal: Oh, that's another great question. Yes, lots of good questions today.

Marielle Segarra: Yeah. And the answer is yes, decentralized finance does run on cryptocurrency like Bitcoin, and it would have a large carbon footprint. According to--it was Politico, actually, that quoted this. According to research by the University of Cambridge, Bitcoin mining across the world now consumes more electricity than is used in a country the size of Austria or Portugal. And you can imagine it's just going to grow. So that's definitely something to pay attention to. And regulators in Europe are talking about this, figuring out a policy and thinking about how if this grows, that fits into their goals to reduce carbon emissions. It's one of those things like, it seems like climate change now overlaps with every part of the economy. It's just something that like every, every, you know, economic agency, and federal agency has to actually be worried about climate change and every company.

Kai Ryssdal: Yeah. And if I could channel my inner Molly Wood here, who's off today and through the rest of the week. There's a podcast on climate change. It's called How We Survive. Molly's, I think she's in the middle of producing, I don't even know if she's like, off doing that today or whatever she's doing, but it runs through December, and it's available on the podcast app of your choice.

Marielle Segarra: Yeah, it's great. You guys should listen to it.

Kai Ryssdal: We got the plug in. Yeah, you totally should. We got the plug in and we're gonna get out of here in like 12 minutes if I can get this ball out of my dog's mouth cuz she wants to play catch. Anyway, we're done, back tomorrow for a hollowed out shell Thursday. Keep sending us your questions, your make me smiles, makemesmart@marketplace.org, or you can leave us a voicemail, 508-827-6278, 508-UB-SMART.

Marielle Segarra: She's always pushing that tennis ball to you. Are you know giving her enough attention?

Kai Ryssdal: This dog gets so much love. Give me, cut it out. You're like my daughter, she's like, dad, you got to walk the dogs again. I'm like, no, sweetie. I walked them three miles today. I really don't.
Marielle Segarra: Alright. Well if you haven't subscribed to this podcast, I do not know what you're waiting for. But we would really appreciate it if you did.

Kai Ryssdal: We definitely would. We definitely would, it would make your life easier too, you wouldn't have to track it down, it would just show up in your phone.

Marielle Segarra: Today's episode of Make Me Smart was produced by Marque Greene and engineered by Liana Squillace. Our intern is Grace Rubin.

Kai Ryssdal: Ben Tolliday and Daniel Ramirez, even though they don't work here anymore, get their names in our credits every single day for composing our theme music. Must be contractual. I don't even know. Our senior producer is Bridget Bodnar, whose idea it was, by the way, to do this single theme what do you want to know Wednesday. Which honestly, I think it works pretty good. Nice job. Oh, now Bridget Bodnar’s in the slack like, so direct any complaints to me. That's right. There we go.

Marielle Segarra: I got to go get a new fridge.

Kai Ryssdal: You totally do.

Marielle Segarra: Might as well just get a hot plate, too. Right?