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Tune in every week as we react to the latest in innovation and reflect on how short-term news impacts our long-term views.

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Welcome to episode five of The Brainstorm, I'm Sam Corris, I direct the autonomous technology and robotics team at Arc Invest, joined by Nick Gruse, who's one of our associate portfolio managers.

Today, we are talking threads, that's the big one, then we're talking Tesla and what the marketplace looks like for them if they can roll out the autonomous strategy. And then lastly, we're going to be talking about used car prices.

Nick, over to you.

Yeah, quick special message for all of the listeners so far, one, just a quick thank you for everyone that has had a chance to watch.

We appreciate your feedback online and on YouTube specifically.

And this is also the first week I think we're rolling out this podcast to Spotify and Apple and some of just the audio platform.

So welcome to all of our new listeners.

We hope you find this to be informative, Sam's going to give a guick kind of background and

understanding of what this and what we hope this will be.

So Sam, why don't you tee it up?

Yeah, well, for everyone out there, Arc has a brainstorm that we host internally every Friday and we take the best researcher news from all of the analysts and we discuss it and trying to contextualize all of these events into the longer term trends that we see happening with innovation.

And so this is really a chance to see how we're thinking out loud, seeing how these ideas develop and kind of push back and forth to ultimately get to the truth.

You often hear Kathy say truth wins out and this is a key part of that process.

And so we're trying to open it up and we love the comments, we love suggestions.

So if you like what we're doing, like a segment or you want to hear more, we're very active on Twitter and now maybe threads, we'll touch on that, but don't hesitate.

So Nick, let's just dive right into it with threads here.

Yeah.

What's happening?

What's happening is Instagram, Metta, Zuckerberg, they are coming for Twitter, we think. So they've launched threads, which is their text-based social platform, it is being deemed a copycat of Twitter, a clone of Twitter.

I think that's fair to say, given the use case and kind of the text-based nature of the platform, but just to set up the stage, threads launched less than a week ago by the time this will be out.

It was the fastest platform, online platform to 10 million users.

I think it's also probably now the fastest platform to 100 million users.

We're recording this on Monday, it just passed 100 million as of this morning, I believe.

And there's some really interesting details I want to go over as to why this is the case.

One is this intrinsic nature of threads being tied to Instagram and hopefully we'll have a video showing how you can log into threads directly from Instagram.

You have to have an Instagram profile for threads.

So it's really building off of your social graph, building off of what you already see and are using Instagram for and now just bringing more text-based content into the fold.

The second is they're hinting at some decentralization.

I think this might be kind of a shot at the launch.

The strategic timing of the launch was timed when Twitter and Elon were cracking down on rate limits and how much you could use Twitter.

They were also blocking people from using Twitter that weren't specifically logged in. And so it was feeling closed off and so I think Zuckerberg and team, there's some rumors that they sped up the launch, they moved it a month up so that they could kind of capitalize on this backlash that Twitter was seeing.

And so they also put first, like right when you log into this app, you see this message about how this is going to be open and decentralized on a protocol called Activity Pub and they're going to be utilizing a federated number of servers called the Fedaverse.

Terrible name.

Terrible name.

Is this the evolution of the Metaverse?

I really, I hope not.

I mean, this is such a bad name for something that is pretty cool and interesting.

But so they are hinting at, you know, opening this up and making this a decentralized platform.

And what that means really is that you'll be able to post a thread and on another site that's using the same infrastructure Activity Pub and Fedaverse like Mastodon does, you'll be able to see a thread on Mastodon, comment on that thread on Mastodon's network, and then you'll be able to see those comments on thread.

So it's, you know, opening up, it's standardizing a protocol to be used across different social media platforms, which I think is interesting and probably a whole nother topic in and of itself.

So I want to move past that and just talk about, I think the execution of the launch, if I had to grade this, I'd give it an A plus.

And so now the question is, you know, what happens next?

Are we in kind of a moment where this is going to be, you know, a Snapchat story killer when they, when they rolled out stories and it kind of just ate away at all the market share from Snapchat stories?

Or is this a Reels moment where they launch Reels and it doesn't really do anything to stop kind of the dominance of TikTok.

That's, you know, what I'm starting to think about now.

And we don't have a clear answer yet.

How important is the user number here because, you know, one of the things that we were discussing

back and forth is, right, the second fastest growing social platform of all time was Google Plus, which, you know, huge, huge belly flop, I would say, right, they took, oh, you've got a great social graph because, you know, the people you email are the people who you want to be talking to anyway, those are the people you're communicating with.

And they gained tons of users because they're essentially just funneling from Gmail over and now you have, you know, Zuck taking everyone from Instagram and shoving this into their face.

So is users the right metric here to be looking at, or what should we focus on? Well, so it's, I think you would deem these users as signups.

We don't know what the DAU or MAU, so daily active users or monthly active users, will be yet and will have a good understanding.

If you look at what Meta reports, DAU to MAU, which is kind of the engagement number most people will cite when they talk about Meta's family of apps, that stands at around 67%.

So you're talking about, I think, over 3 billion total users when you talk about the family of apps that Meta controls, so the Facebook Blue, WhatsApp, and then Instagram. And then so there's a 67% engagement number off of that 3 billion, you know, Instagram is over 2 billion total users.

And then yeah, I want to touch on your point about Google Plus, and maybe this is a good time to bring up this chart that shows, you know, hours to reach 10 million users.

I mentioned threads, that got to 10 million users in seven hours, Google Plus, and you can kind of see the numbers increasing, but this is, you know, blew all other competition out of the water.

You have Google Plus, ChatGBT, Clubhouse, which is another interesting, you know, case study here, because that, you know, saw tremendous growth and went kind of viral, but has now really tapered off in terms of activity.

And a lot of the features from Clubhouse got brought over to Twitter, interestingly enough. So in terms of the Google Plus analogy, I do, I want to go out on a limb and say that the analogy stops at just kind of the rapid sign up, because there is, I think, you know, differences here, one being the DNA.

So when we speak of DNA about a company, we're talking about, you know, Google being not a social media company, so launching a social media platform, they don't really have the right DNA to be able to roll that out, but you have Meta, which, you know, their DNA is social media, so they're rolling out another social media platform.

And they're following a playbook that, you know, I think anyone who would either pick on Mark Zuckerberg or would admire Mark Zuckerberg would say, which is, you know, he finds something

that works, he finds a product that works, and he rolls it into and distributes it to his massive network of users already.

So he's just continuing to roll that same playbook out, what he did with stories, what he did with Reels, what, you know, he continues to do time and time again.

So that's where I think kind of the analogy stopped.

Google Plus also, if you look at when that launched, that was in 2011.

And that was right when the market was starting to shift to mobile.

You know, Instagram had just launched a year before people were already pushing into mobile when it came to social.

So there's a bit, you know, I think there's some differences here.

And it seems like Zuck's kind of coming into his own on his trolling posts on threads as well.

So it's good to see kind of that personality come through, because I feel like oftentimes people, you know, frame him as a robot.

One thing that I want to ask you, because I've had many conversations about this even since Friday, and I still don't know where I fall on this, is, right, the media is just framing this as zero sum Twitter versus threads.

It's easy to do.

You've got Zuck and Musk, you know, ramping up to a potential fight in the Coliseum between the two.

So it's easy to pit these two against each other.

But is that the reality here?

Like, isn't there a world where threads kind of thrives on its own, and it's like one to many, and it's great, they can monetize it.

It's way better than the comments section on Instagram for, you know, communicating to your audience, but maybe breaking news still happens on Twitter.

And it's like, those are two separate businesses, or is this really a zero sum one versus the other?

Yeah, I'm not entirely sure I have like a yes or no answer to that yet.

But I'll try to give some factoids here.

One, I think if you look at the use case, or how Instagram and Meta are trying to highlight threads versus Twitter, they want this to be a place that is positive.

You know, oftentimes people will label Twitter as negative.

So they want this to be a place of positivity.

I don't know how much they can really control that without going too far in the other end of censorship.

But then you also look at Adam Mosiri.

He's the CEO of Instagram, I probably just butchered his last name.

But he was talking about, you know, the use cases that he and the team want threads to be used for.

And the first one he lists off is sports, then he goes into fashion.

He talks about all of these kind of sub communities.

But what he explicitly highlights is they're not going to do anything to encourage what he deems as hard news and politics.

And so I think that oftentimes is what Twitter is used for.

Like you find a lot of breaking news on Twitter happening before it reaches any other platform.

And that's really like, when I use Twitter, I think that's kind of my fundamental use case.

It's like, I go to Twitter to find what's breaking.

And I want to know, you know, the story before everyone else does.

And so I think if Twitter can hold on to that, they will still maintain a ton of users.

And I think there will be differences just because of kind of the stigma around Meta and threads versus Twitter and the way that they're positioning the platform, which is freedom of speech, right?

So they are going after, and I think the market can support two platforms.

The question I have is when you listen to must talk, he wants this to become an everything app.

And if you have a competing app there with, you know, the same amount of users, how much does that impede the success or likelihood that you're able to reach the everything app? I think that's the difference.

Like, I don't think Twitter, you know, just slowly dies from this, at least not right now, given what we're seeing and how they're being, you know, they're being used. But you know, I think it's, it's less zero sum.

So if I had to give an answer after that long-winded kind of explanation and my thought process, I would say, I think it's less zero sum, but it does potentially cap the total opportunity that Twitter could go after because you still want to be used for those sub communities, right?

What happens if threads just becomes the go-to place for sports, fashion, entertainment? And then all of that activity falls off Twitter, but it's still used for news and, you know,

politics.

That's still very important to have out there, but does it limit its growth opportunity in the future?

I think it absolutely does.

But you know, those are things we can't really say will happen, like, definitely yet today.

Like we're, it's just, you know, we're talking about, it's only been out for seven days.

It's not feature complete.

They rushed the launch, right?

So there's not a lot that you can say like apples to apples in terms of features.

It's just like, they put out the most like MVP type of like, like minimal vial product they could have to get that number.

And I think it was really just to hop on the strategic opportunity that Twitter, you know, kind of allowed for with kind of the backlash around the news I mentioned previously. All right.

So we're going to have to wait and see, but just quick question here.

It's like just trying to think through this Instagram to me is a fake place.

It's like everyone, I think, right?

Everyone claims it's a, it's a fake place.

That's why you've got, you know, depression spreading and people just post the happy moments or whatever.

It's like Twitter is almost too real of a place, right?

Twitter you have, it's like no one's pretending to be great.

Like maybe you have some of those people you've got like, okay, here's the thread of how to make a million dollars using chat GPT.

But how do you actually make a social network in text based off of kind of this fake nature of Instagram?

And to me, that's kind of like what makes it hard to compete with Twitter in what Twitter does.

And that's not to say, you know, obviously Instagram is huge.

It's much bigger than Twitter.

So there's a big market for fakeness and threads can probably amplify that even more.

It just seems very, very different.

Yeah.

I think it's a good question.

And I think, you know, kind of what you're pointing towards is when you build another social media network off of existing social graph that has been used on another social media.

So just building threads off of Instagram, how do you delineate the use case between the two?

And I think, you know, one interesting point we didn't talk about.

There's a good chance threads takes time, not just away from Twitter, but also Instagram.

And Instagram is, you know, a cash cow for meta, right?

Like that is the golden goose for them right now.

That's what drives a significant number like percentage of ad revenue for them.

And they're just starting to monetize reels.

And now they have this, you know, new app that's intrinsically tied.

Like I think that's really important to understand here, like how tied these two are.

There's buttons on both Instagram and threads that just toggle right between the two apps.

You can see the user count, like if you were user 100 million, you'll see that now on your Instagram page.

And if I click on that 100 million tag on your Instagram page, I'm taken to your threads page.

So there's like an intrinsic tie between these two.

And to your point, like building off of that social graph, am I just going to see the same type of content on threads?

And then do I just get bored?

And you know, because it's text based and something, you know, for me specifically, like video and photo is just much more entertaining.

So why would I spend, you know, time on threads when I can just see the same type of news? I think what will have to happen is people will have to cater the audience and the people that they follow on threads over time.

And so maybe they'll start following different accounts on threads that they would on Instagram.

And then that that will just slowly, you know, that will have to be a slow rollout.

And that's something you really can't control other than, you know, prompting community,

like, you know, here, follow, if you're interested in X, Y, and Z, follow X, Y, and Z influencers.

Like that, I think just will take time.

And so, yeah, that's kind of where I stand today.

Yeah.

And I think Andrew Kim actually the associate on the web team put it well where it's Instagram is perfection and sexy, and then maybe threads opens up and allows people to be relatable and vulnerable.

And so you could kind of add that balance there.

All right.

We've unraveled this thread long enough.

Thank you.

Thank you.

Onto the next topic here, we're talking about Tesla ride hailing autonomous and take rates.

And so, you know, just, you know, I say take rate, but that just means the cut of gross revenue that they could take for an autonomous service.

And so, historically, ARCS postulated that autonomous taxi platform could take roughly 60% of gross revenue at commercialization.

And that to give context is a roughly double Uber and lifts 20 to 30% there.

But the reason we're talking about this is there is a piece out here.

I believe his name's David Hocken.

Hock, let me, let me see his actual name Hocken Meyer, and he released a piece on framing of take rates and marketplaces and what you can charge.

And so I'm pulling up a chart here and I'll just talk through it.

And essentially, the very high level message here is the more you do, the higher the take rate you can charge.

So if you're just doing lead gen for a marketplace and he throws Zillow into this, you know, maybe it's a 5% take rate for the next level up, which is check out marketplaces where you're handling bargaining costs, right, you're agreeing on a price and handling search. You get eBay and Etsy and that that's roughly 15%.

If you then go to manage marketplaces, this is like Airbnb where you're not just doing pricing and search, but also enforcement costs.

So if something goes wrong, you're taking care of it, like Airbnb, that's up to 25%.

And then the highest level that he has framed here is these heavily managed marketplaces.

And so this is DoorDash and Amazon as the examples.

And so that's not, you're only handling, you're not only handling enforcement costs, if something goes wrong, is damaged, bargaining costs, the price, search costs, finding the stuff, but you're actually handling distribution as well.

And that gets you this take rate up to 35%.

And then here, this chart was made by our director of research, Brett Winton.

He throws in Tesla as this final autonomous marketplace.

And he throws the next added feature here as execution costs.

So actually delivering the service itself.

And he claims that this could be up to 90% of the market.

And to frame this, I'll actually pull up another chart, because I think this is a key piece to understanding.

And this is from Tashakini.

And I think this chart is pretty profound.

And it's the addressable market at each price point for travel.

So it's the price per mile on the y-axis, and the addressable miles at each price point on the x-axis.

And you can see there's a huge price elasticity of demand as prices come down.

But even at the \$1 price point, you cover a trillion miles of demand.

And so that encompasses all of the existing ride hailing, and that's the addressable ridership in Western markets, supplanting commuting miles.

And so that's roughly a trillion dollar market.

And so if you take the work that Tash has done, suggesting that it would just cost 20 to 30 cents per mile at scale to operate these autonomous vehicles, that gets you to that super high take rate and what you would have to charge to get people to start putting their vehicles onto the network.

OK.

Nick, I just ran through a lot there.

Yeah, that's a lot.

So when I hear this and I see the graphic posted on the marketplace opportunity, I feel like it's a very elaborate and detailed way of saying the more value you provide to your customer, the higher you can charge or the higher your take rate can be.

And then I start to wonder, or the question is, once you get past a certain take rate, when does the opportunity become more attractive to just in-house and offer a direct service, vertically integrated service, versus running a marketplace and allowing for a third party? And also what I think is interesting in kind of the Amazon example, just having looked into the e-commerce space a bit, that one is more choose your own adventure, right? And it has a little asterisk up to 35% because you don't have to have fulfillment by Amazon. They just charge extra.

They take a higher percentage of kind of the revenue.

And so I think that is also kind of interesting to think about in these examples.

But I guess my question to you is, if you're a Tesla, when do you say, OK, if we can get 90%, right, that's what Brett is suggesting in his graphic, why wouldn't we just go after the other 10% and just run this as a vertically integrated ride hailing app?

And I think this gets into the rollout strategy for Tesla, which is still up for debate. Obviously, they haven't done it yet.

And so they've said they want to continue to sell vehicles, in which case you need to offer some incentive for people to lease out their vehicle as opposed to just drive it personally.

I think that changes, right?

There could be a point in time where Tesla just says, nope, we're no longer selling vehicles to individuals.

It's more valuable for us to just produce them and put them right onto our network.

We're not at that point, but that's kind of that distinction that you're talking about.

And that's also one of the caveats here, right?

90% is incredibly high.

And so that's very aggressive.

So maybe you actually need to offer people more money to join the network and lease their vehicles out because it's cost per mile, which is based on vehicle utilization.

It's probably lower in the early stages of autonomous.

And so take rates could be lower.

And then there's also this other element.

If there are other competitors in the market, take rates probably scale down as time goes on and more people enter this market.

Or if you keep lowering costs to address that larger opportunity beyond the \$1 price point.

And then a last one, I think in New York, they're talking about this now is congestion taxes.

And so if municipalities start charging congestion taxes, thanks, then that could also change the structure there.

Yeah, I would think when you talk about rollout strategy for what Tesla may do, they have to reach density in certain markets.

So having enough ride hailing cars to be able to service the demand.

And so I think an interesting strategy may be you forego some of that take rate.

Like let's say they can get up to 90% over time.

Maybe you forego that to seed the market so that people with Teslas are willing to put their cars on the road for this service.

But then you slowly build up your own vertically integrated or owned and operated network of Teslas.

And then that's kind of how you slowly seed the market and steal it kind of from yourself or you steal it from the marketplace.

And then it just becomes a vertically integrated solution.

But yeah, time will tell.

We don't.

Again, we're debating things that we can't debate with both threads and Twitter, but we're just kind of pontificating on what may happen.

Yeah.

And I think this was probably mentioned earlier in the hype cycle for Autonomous was you have players like Hertz who are used to managing fleets.

They can handle the vehicles, they clean them, they know how to manage a fleet well.

And so maybe they are ones who step in.

They already have a huge fleet of vehicles from Tesla that they're purchasing.

So there's a lot of ways this can play out.

And I think it's something that we'll actively track and continue discussing as full self-driving and Tesla continue to roll out these updates.

Yeah.

And I think the next Tesla news item we discuss on here, we should bring Tasha into the fold because she always, you know, this is her core competency and provide a ton of, yeah, excellent advice and, you know, I think she would add to the debate.

So let's jot that down.

Remember to bring her on and we're not short of Tesla news.

So I'm sure it'll probably end up being like next week or something.

All right.

And then staying on the auto front here, this actually just came out on Monday, July 10th.

And this is the Mannheim used vehicle value.

And so it's continued to fall.

It's actually declined.

What was the actual decline here at 4.2% in June from May.

Because that brings it down 10.3% from a year ago.

You can see this chart up here.

It essentially looks like a little head and shoulders and potential to decline here dramatically if you were just looking at the chart.

This is the, I think this is the second largest decline they have on the books.

But what's interesting here is, you know, this is where our opinion differs from Mannheim and Cox Automotive.

The Cox Automotive economic insight team is expecting used vehicle prices to be down just 1.1% in December on a year over year basis.

And we actually think that this has the potential to continue declining pretty dramatically.

And it's also, it's very hard to say in the short term what will happen.

But just to kind of frame it on a long term perspective is you have this transition to electric and to autonomous.

And if that happens, then that could be a fairly rapid change in the residual value for these used vehicles.

And I think already probably at the margin we're seeing, you know, people are holding on to their cars longer.

Why would you buy a gas powered car when electric is what we believe to be the future? And when autonomous, again, we believe it's, you know, around the corner there.

And that could really change the dynamics here.

Well, and if you have to sell your car, you theoretically have to purchase a new car unless you're going without one, but you also then have to refinance at a much higher rate.

So I'm sure that is getting into this a bit.

My one question, and this is just point of clarification, this is wholesale, right? And so what is that compare?

Because when I'm thinking of, you know, car sales, I'm thinking of going to a dealership or, you know, purchasing a Tesla online.

That's not what this is.

Dealer to dealer.

Right?

Yeah.

So and I'll just read this from the Mannheim website, so it gives everyone a good perspective here.

Mannheim, it's a measurement of wholesale used vehicle prices.

It's independent of underlying shifts in the characteristics of vehicles being sold.

And so this is often a early indicator relative to what is seen in the retail use market.

So that you can think of it like that.

This is not what's happening in the retail market right now, but typically is the leading indicator.

And then I think it's also, it's not independent either, right?

Like used vehicles are tied in with new vehicles.

There's incentives being offered on new vehicle sales.

And as those prices come down, that also puts pressure on used vehicles, right?

In the mix of everything at the craziest moments in COVID, there were used vehicles selling for higher prices than new vehicles.

And so what is the lead through to retail?

Because I saw one tweet, which I thought was interesting and I shared this with you before, but the tweet, and we'll pull it up for those watching on video, but it reads, new month, new record, \$1,000 monthly payments aren't going anywhere, nearly one in five consumers who finance a new vehicle in Q2 2023 committed to a monthly payment of \$1,000 or more, an all time high, absolutely wild.

That's the full tweet.

I didn't add that.

Absolutely wild.

Yeah.

So again, that's talking about the new vehicle market.

This is the used vehicle and so obviously they're tied, but this is a better leading

indicator for the used retail market as opposed to the new.

But I think other things worth thinking back when we're looking at it is if you look at how people buy new cars, a lot of it is driven by used car trade-ins.

So that's an important factor, right?

You go in and you say, okay, what's this worth?

I don't know.

Maybe it's worth like \$5,000.

That's great.

That allows you to buy a new car, works out.

And so if you look at all of the value of used car vehicles, that's like a trillion

dollars that is on consumers balance sheets.

And so if those depreciate faster than people expect, then that's a huge hit to people's purchasing power for new vehicles as well.

And so those two markets are pretty closely linked here.

And I've been surprised myself just how long the craziness has lasted in the used and new vehicle market.

And so this is something that we're watching closely.

I think our expectation at ARC is very different from consensus.

One, we think electric and autonomous vehicles are happening faster than consensus.

And so that's a big part of the driver there.

All right.

Well, I think that was a great show.

And again, thank you to everyone that has been watching us.

We again, appreciate the feedback.

Please keep it coming.

We want to cater the show towards what works and what everyone enjoys.

And again, welcome to all of the new listeners on Spotify, Apple, wherever you're listening to us.

We thank you.

I know.

And I apologize.

Nick sounds great.

He's got the microphone.

I was visiting my grandfather and I left the microphone there, so I'll get it back.

And the microphone, we decided to get microphones from a comment someone posted on our previous

video.

So thank you for bringing that to our attention.

We thought we just sounded great with the AirPods, but now we sound exceptional, except

for Sam this episode.

All right.

We'll see everyone next week for episode six.

Thank you.

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