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Welcome to episode 17 of the brainstorm.

We're talking Meta and their new sweet sunglasses with Ray Ban, some embedded AI.

AI is an operating system and we're joined by Worldcoin CEO or the CEO of Tools for Humanity which launched Worldcoin, Alex Flania.

So we've got a great episode, Nick.

May we just start here?

Google Glass, was it ahead of its time?

What did Meta announce last week?

Yeah, so last week Meta had their Connect conference and they showed off a wide range of different products both on the hardware and software side.

They talked about a new VR headset, the Quest 3, a lot of innovation going into that.

They also released a ton of new updates in the AI space and I think that's what we'll focus on today.

But also, they are continuing their partnership with Ray Ban, Luxotica, and continuing development with Smart Glasses.

But just to summarize what they released in the AI space, because I think that really is the most interesting part of what they discussed last week.

Let me just cut in quickly.

Nick spoke about this topic for like two hours.

I'm passionate, Sam.

I'm passionate.

I know.

So he's going to break it down for everyone now in four minutes.

Four minutes.

Let's see the synthesis.

I'll do it in less.

But so, okay, the quick summary.

We have new AI-related products, including EMU, which is an image generation tool.

So think Dali, mid-journey, the Meta AI Studio for Developers.

So this is a studio that developers will be able to create AI agents, chatbots.

You'll also be able to interact with 28 celebrity-backed AI chatbots if you ever wanted to play Dungeons and Dragons with Snoop Dogg as your dungeon master.

That's now possible.

Who knew?

They also release AI stickers.

And then also Meta AI.

Meta AI is their in-house branded AI agent that I think, you know, this is where it becomes really interesting to think of this agent, Metas, is now going to be incorporated also within their Smart Glasses.

So you'll have this pair of Ray-Ban glasses, and you'll be able to prompt your glasses just in the same manner as you would prompt Olexa or Siri on your phone or smart home device and ask the world, or ask the AI about the world that you're seeing and hearing.

And that's the really interesting component here.

This AI agent is going to be multimodal.

So that means it'll be able to see what you see, hear what you hear.

Hopefully there's a lot of privacy focus on that.

But it's going to be quite an interesting concept.

And maybe, you know, the more that I think about this, a new user interface and potential first killer feature app for a pair of glasses, I've been looking at this space for the majority of my time at ARC, and I, you know, haven't really been compelled by anything up until this point to really say, okay, this could be the first feature that makes smart glasses, you know, take off in the US in some capacity.

Yeah, yeah, yeah, so I think, well, I mean, we can't really fathom all the different ways that they're going to, you know, or how developers will use this and what they'll develop it for.

But you can think of it in a certain instance, the one example they gave was, you know, someone staring at a monument in New York City, I forget the exact monument, but let's just say it's the Statue of Liberty, because it can see through the glasses, what you're seeing, you

can say, Metta, what, what, what, you know, who gave us the statue, you know, when was it given to us, any question you would really want, because it's going to be connected to Metta's large language model.

So it has all of the knowledge that you'd expect from one of these AI agents.

For me, particularly, what use case could I come up with?

Well, if I'm, you know, potentially cooking at home, maybe I'm making pizza, we've discussed my fondness for making pizzas at home, maybe it will be an assistant and say, hey, you know, use this type of sauce or, you know, your pizza's burning.

I think there's just a lot of different ways that you can enhance a human when you have an AI agent living essentially on your face.

Like that, I think of it as like, I'm a Marvel fan, right?

Like this is Jarvis in real life.

Sunglasses in the kitchen, 7pm.

But I mean, if you think about it, though, right, it's like, this is now, if you're a fan of Iron Man, this is Jarvis in real life to, you know, in a certain extent, or the start of something that could look like that in the future.

And I think that's a really powerful shift in the way that humans are going to interact with the digital world.

If you think about it today, yes, you still have all of this knowledge at your fingertips, but it's at your fingertips, right?

You have to use multi-touch.

You have to look at a screen.

We could be seeing a new computing shift.

We could be moving away from, you know, dedicated screens, carrying those around.

And actually, maybe we go to something that is more natural language in nature.

Maybe it's more audio.

Maybe we're, you know, all walking around looking like we're talking to each other, but we're actually just talking to our assistant.

I think this really does begin to open the door and provide a basis, a realistic basis for how this can change the way we interact with the digital world.

And so when are these available, did they say?

I think the, so the glasses are going to be coming out soon.

But then there will be a future update where you have this meta AI embedded.

I think they talked about it being in the next year or so.

So it's not available on the device today.

And I'm, you know, it's also not going to be on device, right?

This will still be cloud based.

So you'll have to query it and then it has to query the cloud.

So there might be latency issues.

You'll still need to have service.

I think, you know, when you hear me speak about the potential future, what, you know, one of the concepts we discussed in brainstorm is, you know, how do you develop an on device?

So how do you embed a 7 billion, 10 billion, 12 billion parameter model into a device?

So it doesn't have to query the cloud.

So you're not, you know, bandwidth constrained.

It's actually something that's just directly on your device.

And one concept I brought up and I'd love your thoughts here, Sam, is, you know, what if your phone, you know, you still have it for privacy to text, you know, you're not going to be talking all the time and, you know, querying or, you know, using the internet in that way.

But what if another primary use case for it becomes essentially a battery pack for a large language model because they are quite energy hungry.

You'd need a decent amount of storage space that probably cannot fit on a headset today or something sleek like what Meta is putting out.

So what if, you know, a hardware device like a phone has another use case now?

And I think that is kind of an interesting way to think about it.

But curious what your thoughts are there.

Yeah, I think it makes sense to have the battery pack and then, you know, it is making the true multimodal kind of gets back to the robot discussion from last week as well.

I've made this argument before that we're already sort of, you know,

bionic in a sense, but the computer's on the outside and that's your smartphone.

And this is kind of just equipping you with the, the eyes.

You got the watch, the AirPods.

I think the AirPods are probably more interesting now than ever before, given the power of audio.

And I also just want to tie in this tweet and, you know, you mentioned Jarvis capability from Meta AI, but this is Andre Karpathy tweeting who he was the director of AI at Tesla.

And now he says, you know, he's building a kind of Jarvis at open AI.

And the comparison, the too long, you know, summary here is LLMs.

So large language models as chatbots is the same as looking at early computers as calculators.

We're seeing an emergence of a whole new computing program.

And it is very, very early.

I would agree.

I think it is too narrow in scope to say, you know, the future for large language models will just be constrained to chatbots.

I give, you know, the example a lot of, in a lot of different settings about, you know, when we talk about the way that the future will unfold with early technology, you can't predict everything that's going to be built on top of new platform shifts.

It would be, you know, wrong of us to sit here and say, you know, these are going to be this, you know, strict use cases for large language models.

It would have been wrong of us when the iPhone was developed in 2007, 2008 to say, you know, here are all the apps that will be available on the app store.

If someone could predict the rise of Uber and Airbnb, then, you know, they're a fortune teller or someone from the future.

That's just really not how technology develops.

So I think it is true.

And I think, you know, interestingly embedded in that tweet as well, Sam, is the idea of an operating system, right?

Thinking of large language models as new operating systems that will direct and, you know, change the course of, again, how we interact with the digital world. Right.

A new, a new user interface, something to think about.

Uh, you said you can't predict everything about a technology, but I'm going to ask you to make a prediction.

Oh, here we go.

I'm over two on my predictions.

I know, this one's not, this one's not sports related.

Okay.

And you can't check me on in a week.

Oh, if we're going Oculus sales.

Oh, no, no, Oculus sales.

Right.

They always go like, no one cares.

Holiday is great.

Good gift.

Then everyone never touches again.

Holiday, great.

Okay.

Meta AI sunglasses, obviously seems like a fun holiday present.

Not too expensive.

I don't imagine.

Um, do these have more staying power than Oculus?

I think it is going to change the course of how we view AR and VR.

Again, these glasses, you can't even really defined as AR because there is actually no screen.

This would all just be audio input.

Um, so that's how you would, you know, navigate this world.

But I think something we've discussed in the VR AR space is this idea and concept of chicken and the egg problem.

Right.

The issue and the reason you see those spikes in the holiday and then everyone ends up putting their, you know, headsets away for the remainder of the year is the software side of the equation.

I think you look at the hardware specs of quest three and AR.

Um, the hardware is there.

What you need to have to have compelling use cases are there, but there aren't a lot of compelling use cases.

It's still quite expensive to develop.

But I think what you're seeing with AI is that it actually is a lot cheaper to develop, um, AI and the cycle of innovation in AI is a lot faster.

Then some of these more rigorous, um, you know, fully immersive experiences that are being developed.

And so if you can bring in a new set, uh, and a new category of developers that are focused on building out AI tools for the AR and VR space, I think you can see a major catalyst and that could lead to staying power for both just cause I would assume the meta AI isn't just going to be embedded into this, you know, smart glasses.

It'll probably get embedded into the VR headset over time.

And, you know, you could see it across a number of their software applications as well.

And so I think that is something to consider when speaking about, you know, how does this develop staying power over time?

All right, let's move on to the next topic.

And now we're going to be talking about world coin with its CEO, Alex Blania.

Alex, thanks for joining us.

So let's just, you know, for

the basics, what, what is world coin?

When did you join?

Uh, and what's been going on?

So world coin is, uh, three things, actually, most importantly, two, which is a way to prove personal to the internet, um, in a privacy preserving manner that will work for, it will work globally, independent of government identities.

Uh, and so that is called world ID and we issue these with a biometric hardware device we call the orb that you might have seen somewhere.

So it's a, it's a chrome basketball sized orb.

Uh, then second, there is a token, uh, attached to this whole system that aligns all incentives around actually growing the network to real humans, which I do think is something very powerful and something we have not seen because we never had actual civil resistance, meaning we could not align incentives to grow a network of real humans.

Then also we have an on custodial wallet, uh, called world app, which is the first wallet that connects to the protocol, uh, but many more will follow.

And, uh, the company was, uh, started by Sam Altman, which you know, uh, probably know from open AI mostly, and he started this project together with me and, uh, the technical founder max, uh, because we believe that a GI is coming and it's coming rather quickly.

And, um, what Rockland will hopefully do is it will, uh, act as a very

important and fundamental infrastructure that we need in the short term to, uh, you issue and kind of use proof of person on the internet, which is what we believe, uh, something very important and something that we currently do not have as AI becomes increasingly profitable. And over the mid to long term, we think that, uh, UBI is something that will come and will have to happen.

And to issue UBI, you need, uh, a personal service and a way to economically reach everyone, which is hopefully, uh, what we will be able to do.

Um, so, and right before world coin, I was in theoretical physics and applied AI to very large quantum systems.

And that's essentially how I am at Sam.

Alex, it's a quite an interesting concept.

And I think one that many companies are going after this proof of verification, you know, you see it with what Elon is doing at X and it seems like a number of social platforms that already have this very large distribution are trying to solve this problem in a, in a more centralized manner.

So why do you believe that it needs to be decentralized and, you know, how are you trying to tackle this ground roots effort, right?

You don't, or you didn't start with the distribution of a X or a Facebook.

Um, but you know, you're still out there trying to reach the masses because I assume for this to work, you need it to reach scale.

You need it to reach, you know, global network.

Um, so curious if you can just provide any more thoughts on, you know, what we're seeing out there with this kind of verification, um, system across a number of different platforms.

Sure.

So first I will address your question on kind of what are kind of what are other people and kind of the social companies trying to solve to actually do something different, which is they use government identities, um, or payments.

All right.

So I mean, Elon is very transparent about the fact that he doesn't believe to actually have the solution to it.

And he just tries to patch things together to somewhat make it work, um, which is, well, either you pay a dollars or you do a KYC, um, the problem with all of this is that for around half the global population, uh, there is not even a government identity that would work at kind of sufficiently strong AI.

And the real number would probably be bigger.

Like, I mean, it's very easy to understand.

JetGBT, um, I think it's just the kind of the first major service that made all of this clear, but what will happen in the coming years is that neither digital content nor intelligence will be a human discriminator anymore, and it will break much of the infrastructure we currently have.

And so world coin is actually, um, I mean, we spent a quarter billion dollars

and a couple of years, uh, to build something that is kind of as foundational as government infrastructure, right?

So we solved the deduplication problem, meaning we use biometrics to, um, and zero knowledge proves to issue a very fundamental proof of humanness, proof of personhood that can work for everyone, no matter where you come from, no matter which country you're in.

And it can also work for billions of people and it is fully digital and, uh, fully global standard.

So, um, I don't think we actually have direct, uh, competition in any matter because it's just something so crazy in such a moonshot that no one was, uh, crazy enough to try it.

Um, and I do think actually the social companies will be very happy to use us if it once we're at scale.

So that, which brings me to the second point.

I think the scale is the biggest, is the biggest problem.

And that's also mostly, uh, what the current challenge of the, of the project is and kind of what TVH.

So I'm actually not see world coin as a protocol, but I'm CEO of the tools for humanity, which is the development company, uh, that launched world coin.

And we have a huge operations team of many people from Uber and Airbnb in places like that.

And so a lot of what we're, uh, solving right now is exactly that scale.

Um, and I'm confident we will get there.

But as you appreciate, that's very hard because you have a, you have a harder device that needs to just be distributed globally.

And then, uh, the second part is why do I care that it, that this is something that is solved in a decentralized manner?

Um, I think it's the same reasons for the whole space to exist for the whole space crypto to exist.

Like if you have an infrastructure that is as important as we believe this will be, um, it's rather important that it cannot be compromised.

And again, decentralizing something that is a reliant on hardware is again much harder, but it is fundamentally possible.

So, right.

And, and I guess maybe that gets into some of the controversy around world coin. Right.

There's, I think there's a lot of misinformation out there.

There's also questions about, you know, how do you go from centralized to decentralized?

Uh, so, you know, how do you think about those and, and work through some of the, uh, or I guess help us cut through some of the noise that's out there to get on the same page as what the plan actually is.

Yeah.

Yeah.

So I think like the biggest, um, the biggest, um, misconception, um, and kind of the biggest thing we were kind of battling and tackling against since essentially we started working on this project, which by the way, we internally had the same reaction.

So it's not surprising.

It's like when we made the decision to work on roll coin, we did almost a year of research.

We built everything from social graphs to fingerprints to face to trying to use government entities.

We, we, we essentially went down every rabbit hole that you could possibly think about solving this problem.

And we came to the conclusion that we have to use, uh, kind of biometrics and we even have to go that far to build our own hardware device and that kind of iris.

So the eye is the only thing that actually works on a large scale.

And we had the same reaction.

We're like, holy shit, this is going to sound like a privacy nightmare.

This is going to freak people out.

This freak, this freaked us out.

Um, and the, however, like,

there is this interesting thing happening where as the protocol is designed, um, and how we use their knowledge proofs and all of these things is that I, I really do think we ended up in a place where it is profoundly the most privacy preserving solution we have to the problem.

It's like there's literally, uh, kind of the use of the protocol and your, your world that is fully separate from your actual biometrics.

Um, it's kind of cryptographically decoupled.

And we would need a lot of progress and kind of computers to change anything about that.

And that's what I did before.

So we are far from that.

Um, and so I think that's, that's the first one.

The first reaction is like, Oh, this is a privacy nightmare.

And the answer is just, but it's just clearly not.

And, uh, of course that is not surprising because you need to understand your knowledge proofs and you need to actually understand the system.

So I think that's just something that will resolve over time and will require like a lot of information, not just from us, from the team, but also from people in the general ecosystem.

Uh, so I think that's one to around decentralization.

Um, that's, we have a white paper out there that is unfortunately very long.

It's like 130 pages.

Uh, so it's like, I'm definitely not angry at anyone that is, did not read that. Um, but, um, we, we have a section around decentralization where we actually line out, uh, all the challenges that we see and how we think we will address them. But that being said, we will also, and I think either this month or next month, we will release kind of an in-depth top take top tier report on progress around decentralization that kind of explains all of these things.

But the short till the R is, uh, you have, um, right now tools for humanities building these devices, these orbs, and then there's a separate entity called bro confundation that is actually, um, I'm fully a couple of have no control over it, uh, has all the IP.

It's an on-profit and has will set all the standards.

And so how it will go is you will have in the coming years, you will see many other companies building, uh, orbs.

Others will probably not call them orbs and maybe not make them shiny, shiny chrome, um, but they will follow the same hardware standard and integrate with the protocol.

Um, so, uh, and then there's a lot of kind of more details that of course come along with that, but I think we will, we will touch on all of them and quite some detail.

Um, so that would be my, my initial response to your question.

Got it.

And then maybe we get to the heart of, you know, one of the, one of the founding thoughts here is that, you know, UBI will be a necessity and maybe we can kind of go into that in a little bit more detail.

Last week we were talking about automation and, you know, there's the BCG study with Harvard Business School showing whatever 40% increase in productivity just from, you know, chat GPT like tools, uh, you know, will people have jobs, won't people have jobs?

Uh, so kind of, you know, what is your thinking with universal basic income and why that's going to be a necessity?

Well, I do think actually the framing should be more, it's a chance that we for the first time realistically have, right?

Because, um, we did not use the term UBI, um, we started using it kind of in a super early days when Sam started the project, uh, he talked about it in terms of UBI and we actually got a lot of kind of gut level rejection, uh, immediately because it, it always gets to kind of, kind of the political level, the political system of like, okay, the government redistributes wealth and that, that of course, um, wraps people the very wrong way in, in a lot of ways, but AI is changing how things work very fundamentally.

You will have a couple of entities that will create much more wealth and much more upside than probably any company that we currently observe occurrence currently see, uh, is, is creating and, uh, all of this will only accelerate over time and so the chances that we can use, uh, some of that to, uh, lift

everyone up and I don't think that actually will, we all have jobs.

I do think we can choose not to, uh, for, for the first time realistically and that that's a chance.

I do think jobs will change.

They will be very different.

They will be, uh, much more creative.

Hopefully, uh, that we will have personally much more leverage.

Like if we decide to go after a certain goal, systems will help us to attain that goal much faster and much more effective.

So I think everything will change in the coming years.

Uh, it's hard to say how it exactly will change, but, um, at least we have the chance to lift everyone up equally as we go along.

And that's very cool.

That's very exciting.

Yeah, I think Alex.

Well, just, yeah, one note as this conversation is happening, I'm seeing headlines flagged that Jamie Diamond is speaking and talking about, uh, you know, kids in the future will be working three and a half day work weeks.

And so I think that kind of gets to the other underlying, you know, theme here, which is AI is going to be massively, uh, helpful for workers out there, um, but also reduce the amount of time they actually have to spend doing certain tasks, which gets back to the, you know, how do you then supplement, which I think you, most people will point towards UBI as some solution, uh, to that problem.

Alex, thank you so much for joining us.

The last question just don't even know, not too much thought, although I'm sure you've given it plenty of thought.

AGI what year?

28 28.

All right.

There you have it.

Thank you all for joining us and we'll see you next week.

Nick, when do you think AGI is happening?

2028 I'm going to, I'm going to follow the lead of the expert, uh, in this, in this instance.

Um, but yeah, thank you everyone for listening.

That's our show.

Uh, we'll, we'll, we'll be back next week.