

Mark Zuckerberg on why he doesn't want to "put an Apple Watch on your face"

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18-23 minutes

Social networks contain multitudes. One day you're writing about [internal dissent over the company's ability to uproot influence campaigns and election interference](#); the very next, you're watching a live stream of the same company's foray into virtual reality helmets and designer mixed reality glasses. At a company with as many interests as Facebook has, different days call for different kinds of stories. And so today's edition will be a lot different from yesterday's.

This is all a roundabout way of saying that I talked to Mark Zuckerberg about [Facebook Connect](#). The event, which was previously called Oculus Connect, gives the company an annual opportunity to discuss the latest advances in next-generation computing platforms. Facebook has sometimes faced doubts over why a social network would invest so much time and money into a hardware project with no uncertain payoff. But a [summer](#) of [escalated tensions](#) with Apple have helped to make the case: if you want to control your own destiny, you have to own your platform.

For those who haven't been paying close attention to Oculus and what the company now calls Facebook Reality Labs, some background is in order. Facebook isn't the only big company working on advanced headset computers — Apple, Google, and Snap are also investing billions in research and development. But with the Oculus Quest, the standalone headset that Facebook introduced last year, it arguably became the market leader in VR — the company furthest along in developing a base of users and a developer platform for a standalone headset. (Sony also makes a popular headset, but you'll need a PlayStation to use it.)

Today Facebook [announced Quest 2](#), which is \$100 cheaper than its predecessor at \$299 and less heavy to boot. [The Verge's Adi Robertson really liked it](#), calling it "the new default for VR, if you're OK with Facebook." Facebook hasn't disclosed sales numbers for the Quest, but Zuckerberg said the company sold as many of them as the company could make. Andrew "Boz" Bosworth, who leads the company's hardware projects, told me the Quest 2 represented a significant leap forward.

"We're doing something that I think is honestly totally nuts and awesome," he said. "Which is taking a product that is successful — exceeding dramatically our expectations — and just retiring it way prematurely and replacing it with a better, cheaper thing. I don't know how many times in my career I will be able to do this. It might just be one, but I'm pumped about it."

With augmented reality, Facebook is a few steps behind. Snap released the first generation of Spectacles in 2016; Facebook won't have a product on the market this year. But the company says its first effort at consumer ["smart glasses"](#) will arrive next year. And in the meantime, it announced [Project Aria](#) — a research prototype for more full-featured augmented reality hardware that will soon be given to Facebook employees and contractors to begin testing.

Taken together, the projects may represent Facebook's single biggest bet on what the future may look like. And like other projects with global ambitions, it will also invite new scrutiny over privacy, data security, content moderation, and more. I talked with Zuckerberg about how he's using VR, how Facebook will manage privacy risks, and why he doesn't want to build "an Apple Watch for your face."

Highlights of our discussion follow, lightly edited for length and clarity.

Casey Newton: So where are you on this long road to making VR mainstream?

Mark Zuckerberg: VR, I think is well on its way. We had this milestone in our mind that first we needed to get the technology to the place where you could have a standalone headset, it could be portable, it could be high quality — do the tracking and all that. And Quest was the big milestone on that. Then, from an ecosystem perspective, we believed that if we get to 10 million units active, then that's kind of a critical magic number.

At that point, you have a self-sustaining ecosystem. That's the next big push: how do we get the technology to be more accessible to more people? A big part of that was driving it to be more affordable, and making it more portable. ... And we're not at 10 million yet, but I'm optimistic that over the next few years, we'll get there. And that will really be a new stage of VR.

Obviously, the form factor still has a lot that you want to work on. It's a little bit clunky today.

And what about AR glasses?

AR is just going to be a lot harder. I really don't think that AR is going to be good until you get normal-looking glasses that can project holograms into the world. And now, glasses range from thin to pretty thick frames. I don't think we're anywhere near getting all the electronics that you would need to get into a thin frame. But the hope would be that you can get it into more normal-looking glasses in the first part of this decade or the first half of this decade.

And that will be challenging, and people will take different approaches to getting that to work. The biggest shortcut that a lot of folks are trying to take is basically trying to not do full holograms in the world, and just show some heads-up information. I call that "putting an Apple Watch on your face."

I don't personally find that particularly compelling. It's not a product that we're particularly excited about making. Maybe someone else will make it. It doesn't fit the kind of social use cases that we primarily care about.

If not an "Apple watch on your face," then what is the exciting potential use for these glasses?

The thing that excites me about virtual and augmented reality is the feeling of presence. The idea that this is the first computing platform in the history of computing, where you really feel like you're there with another person. Right?

Delivering a sense of presence is the thing that I care about. And VR and AR are going to be the technologies that do that. VR by fully immersing you in a new environment, and AR by bringing people into your existing environment through holograms. So in the future, instead of a video chat, I'll just be sitting on my couch and your hologram can just appear on the couch next to me, or I can hologram into your house. And part of why that's going to be a lot better than video chat is that then we'll be able to have virtual objects that we can interact with together. If we want to play a game of cards, I can have a deck of cards.

If you think about the way Spotify gave us access to the back catalogue of music, VR is going to give us access to the back catalogue of *objects* that we can look at or that we can interact with — with other people, anywhere that we go. Which is something that's going to be different experience than the kind of 2D video chat that we have today.

That's the kind of stuff that makes me excited about this. I feel like we've been developing social software in these boxes that are defined by other platforms for my whole life, and the whole existence of our company. And I'm excited to be able to break out of some, and find a space where you can interact in a more natural way.

To what extent has the pandemic changed your thinking about VR? Do you have a different sense of what's possible, or what might be more urgent than before?

So I definitely think COVID has shifted my outlook on some of this. For one, the concept of remote presence with video is now much more mainstream than it was before. Before it was kind of a work tool that sometimes people used when they had to. But now like everyone's on it all the time. So that notion of wanting to be present remotely with people, I think is much more mainstream now — through video, not necessarily through AR and VR.

A lot of people think that AR is the thing that matters, and VR is this niche, smaller thing. My outlook on that has shifted. I actually think VR is going to be quite important for people, too. And over the next few years, I think it's going to just grow significantly faster.

So I've always been focused on both. But I think I'm maybe even a little more optimistic at this point than I was before seeing how people use it during lockdowns.

With Project Aria, you're putting cameras on people's faces. There was a big debate over the ethics of that when Google Glass first came out, but a long time has passed since then. How are you thinking about wading into that debate?

I think the first thing is we should just talk about more of the issues up front.

One of the things that I've learned over the last several years is that you don't want to wait until you have issues to be discussing how you want to address them. And not just internally — having a social conversation publicly about how society thinks these things should be addressed. Because those conversations take a while to work through, and with hardware development the cycles are long. We're mapping out the hardware that we're going to be shipping in 2024 now. So if some issue comes up, it's gonna be a long time before you can you can fully address those things.

I know there are a ton of questions. If you ask a lot of people what they want glasses to be able to do, one of the canonical things that people will say is they would want to be able to go into a room with a lot of other people and have the glasses tell them who the people are. And maybe you want that — but that goes directly into all the questions about facial recognition, biometrics, and what information you should be able to have access to. These are real questions. It's not simple or straightforward what the answer's going to be.

I think just starting to have these conversations now, so that by the time the technology is ready, we can at least have some early consensus on how to approach this — I think that's just incredibly important.

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Some footnotes: Zuckerberg told me the games he's playing most on his Quest 2 right now are the robot frisbee battle game [Echo VR](#) and the zombie shooter [Arizona Sunshine](#). Facebook published its ["responsible innovation principles"](#) on Wednesday — they're meant to address the many concerns related to the development of AR glasses. Ben Thompson wrote [a widely read post on why he thought VR would be smaller than AR](#) in 2018.

The Ratio

Today in news that could affect public perception of the big tech platforms.

Trending down: [Conspiracy theories about the origins of the Oregon wildfires are still spreading through private Facebook groups, days after the social media giant announced it was cracking down on false claims.](#) Many of the rumors claim the fires were started by Antifa. (Ashley Gold / *Axios*)

Connect

[Here's all the news that came out of the seventh annual Facebook Connect.](#) The event was virtual this year due to the COVID-19 pandemic. (Adi Robertson, Nick Statt and Ashley Carman / *The Verge*)

[The Oculus Quest 2 is "everything I liked about the original Quest at launch but with the benefit of a stronger ecosystem that's developed over the past year," says The Verge's Adi Robertson.](#) The screen is better, the device is lighter, and the price is much more affordable. The only downside, for some, is that it requires a Facebook account. (Adi Robertson / *The Verge*)

[Oculus is selling a more comfortable head strap for the Quest 2 than the standard cloth option.](#) The plastic "Elite Strap" offers more support and a little bit of a counterweight for the headset's front-heavy bulk. (Adi Robertson / *The Verge*)

[Facebook opened preorders for the Quest 2 today, and it's launching the headset on October 13th in 22 countries.](#) (Adi Robertson / *The Verge*)

[Facebook is launching its first pair of consumer "smart glasses" next year as Ray-Bans.](#) The glasses won't be classified as an AR device, suggesting they may be closer to something like Snap's Spectacles, or perhaps Amazon's Echo Frames. (Nick Statt / *The Verge*)

[Facebook announced it will let creators put their AR effects in Messenger and Portal.](#) The move gives augmented reality effects creators more places to share their work. (Ashley Carman / *The Verge*)

[Facebook and Cyan Worlds announced that Myst will get a VR remake for the Oculus Quest later this year, launching after the release of the upcoming Oculus Quest 2 headset.](#) (Adi Robertson / *The Verge*)

Governing

★ A group of Republican senators led by **Marco Rubio** is calling on **Trump** to reject **Oracle's** proposed deal with **TikTok** if the app doesn't sever ties with **ByteDance**. "We remain opposed to any deal that would allow China-based or controlled entities to retain, control or modify the code or algorithms that operate any U.S.-based version of TikTok," Rubio wrote. Alexandra Alper at Reuters has more:

"We are heartened that this deal still requires government approval, and if reports indicating this proposed deal will retain links to ByteDance or other Chinese-controlled entities, we strongly urge the administration to reject such a proposal on national security grounds," he added. [...]

The letter, also signed by Senators Thom Tillis, Rick Scott, John Cornyn, Roger Wicker and Dan Sullivan, is part of a growing chorus of lawmakers raising questions about the deal.

Oracle's bid for **TikTok** doesn't solve the **Trump** administration's national security concerns. Officials worry that under the current deal, ByteDance could still have access to user data from nearly 100 million TikTok users in America. (Saleha Mohsin, Nick Wadhams, and Jennifer Jacobs / Bloomberg)

Oracle's deal with **TikTok** could be worth more than \$1 billion in annual revenue for Oracle's cloud business in the coming years. The deal would also take business away from **Google** and **Amazon**, cloud competitors that TikTok has used over the past two years. (Amir Efrati / *The Information*)

Oracle pushed Section 230 reform for years, in an effort to harm rivals like **Amazon** and **Google**. Now, a deal with **TikTok** could mean it needs the law, too. (Emily Birnbaum / *Protocol*)

A conservative group is paying teenagers to pump out messaging in support of **President Trump** on **Facebook** and **Twitter**. Both companies suspended or removed a number of accounts involved in the campaign. (Isaac Stanley-Becker / *The Washington Post*)

Donald Trump retweeted an image that baselessly accused **Joe Biden** of being a pedophile. **Twitter** said the retweet "is currently not in violation of the Twitter rules," but did not explain why. Okay then! (Maegan Vazquez / CNN)

President Trump nominated longtime telecom lawyer Nathan Simington to be the Federal Communications Commission's next commissioner. Simington played a significant role in the Trump administration's social media executive order issued over the summer. (Makena Kelly / *The Verge*)

The Federal Trade Commission is gearing up to file a possible antitrust lawsuit against **Facebook**. The suit could come by the end of the year, although the FTC reportedly hasn't made a final decision on whether to sue Facebook. (Brent Kendall, John D. McKinnon and Ryan Tracy / *The Wall Street Journal*)

Former **Facebook** employees working at the political nonprofit Acronym are hoping to harness the platform's power to defeat **President Trump**. Mainstream liberals have been slow to lend their support. (Arielle Pardes / *Wired*)

Facebook's top executive in India said nobody — including embattled executive Ankhi Das — can unilaterally influence content enforcement on the platform. Das has been in hot water for not taking down a post from a politician from India's ruling party, because she thought doing so would hurt Facebook's business opportunities in the country. (Manish Singh / *TechCrunch*)

QAnon is coopting a USPS phishing campaign, baselessly claiming that scammy text messages are related to human trafficking. Inadvertently thwarting a phishing scam by spreading misinformation about human trafficking is very 2020, to say the least. (Zoe Schiffer / *The Verge*)

Awareness about **QAnon** has risen dramatically since March, and most Americans who know about it think it's bad for the country. That feeling isn't shared equally among the parties, however. Only about a quarter of Republicans who know about QAnon feel it's very bad for the country. (Pew Research Center)

Almost two-thirds of young adults in the US do not know that 6 million Jews were killed during the Holocaust. Almost a quarter said they believed the Holocaust was a myth. Talk to your young adults, people! (Harriet Sherwood / *The Guardian*)

Apple said **Epic's** problems are "entirely self-inflicted" and accused the company of "starting a fire and pouring gasoline on it" in a new **Fortnite** filing. The company said *Fortnite* can return to iOS at any time — so long as Epic removes the custom in-app payment system that triggered the game's removal in the first place. (James Vincent / *The Verge*)

The Justice Department charged five Chinese citizens with hacks targeting more than 100 organizations in the United States. The hacking targets include social media and video game companies as well as universities and telecom providers. (Eric Tucker / Associated Press)

International ethics groups designing guidelines for artificial intelligence consist mostly of people based in Europe or the United States. Without more geographic representation, they're likely to just repeat classic mistakes. (Abhishek Gupta archive page Victoria Heath / MIT Technology Review)

The EU's highest court ruled that it is illegal to block or slow down traffic once a user's data cap is reached, just because that traffic isn't part of a zero-rating deal. The move closes a major loophole in Europe's net neutrality rules. (David Meyer / Fortune)

On May 4th, a Nigerian man became the first known person in the world to be sentenced to death via a virtual court on Zoom. The move was part of an attempt to expedite the judicial process during the pandemic, but it was too fast for many people. (Kechi Nomu / Rest of World)

Industry

★ Stars including Kim Kardashian West, Katy Perry, and Mark Ruffalo froze their Instagram accounts today in support of the Stop Hate for Profit Campaign. Critics called it a stunt. Here's Kellen Browning at *The New York Times*:

The reaction resembled the griping over how #BlackoutTuesday, an Instagram trend meant to show support for the Black Lives Matter movement by posting images of black boxes, was an ineffective performative gesture rather than a substantive action.

"These stunts are worthless if temporary and short-lived (which they always are)," tweeted Jenna Golden, the head of a consulting firm in Washington, mirroring a common sentiment shared across Twitter. "If anything, they shine a light on the fact that we cannot live without these platforms since everyone always comes back (brands included.)"

Teen girls are dominating TikTok, going from zero followers to hundreds of thousands in a matter of days. The devotion and nonstop attention of their fans can be hard to contend with. (Kaitlyn Tiffany / The Verge)

Spotify CEO Daniel Ek defended the company's decision to keep transphobic content from Joe Rogan on the platform. Rogan signed an exclusive deal with Spotify earlier this year. Some Spotify staff felt alienated by certain episodes of his podcast. Spotify, welcome to content moderation hell. (Joseph Cox and Emanuel Maiberg / Vice)

The New York Times and Facebook struck a multi-year partnership to co-develop augmented reality filters on Instagram, specifically for New York Times journalism. The first few filters will include visual interactive pieces tied to coverage of the California wildfires and air quality during the COVID-19 lockdown. (Sara Fischer / Axios)

An entire industry has cropped up around managing Twitch stars. But people in the industry say there's rampant exploitation going on behind the scenes. (Cecilia D'Anastasio / Wired)

And finally...

Talk to us

Send us tips, comments, questions, and VR experiences: casey@theverge.com and zoe@theverge.com.