

# Facebook teases a vision of remote work using augmented and virtual reality

Facebook has long believed in the promise of virtual and augmented reality extending well beyond entertainment, and we're now getting a clearer glimpse at what that future might look like now that the current pandemic is reshaping how companies everywhere think about remote work.

According to Andrew “Boz” Bosworth, Facebook’s head of of AR and VR, the company is already investing in “supercharging remote work and productivity” using those technologies. He even shared a video of what that might look like, featuring real footage of an experimental test using prototype Facebook hardware and software.

*This is real footage using prototype headsets. We're always experimenting with future concepts using different hardware configurations as part of our proof-of-experience process*

– Boz (@boztank) May 21, 2020

It's not much – the video is just eight seconds long. But it does show off an idea that Facebook execs like Bosworth think might be the future of work. We see a few floating displays, which are quickly resized and rearranged by the user with a form of touch gesture that looks like a pinch, drag, and zoom.

Of course, these displays are virtual, but the world around the user is real – that's thanks to passthrough. Oculus uses the term to refer to utilizing the outward-facing cameras on a Rift or Quest VR headset to see the room around you.

Passthrough is used to create the virtual mesh barrier that confines Oculus software within a certain area you draw yourself using the Touch controller. The feature is also useful if you're simply curious where you are in a room or how close you might be to, say, a wall or a piece of furniture.

But here in this demo, Bosworth says Facebook imagines a mix of AR and VR – what the tech industry calls mixed reality – that uses passthrough to show you your keyboard while you type. That way, you can have the tangible effect of using a physical keyboard while not having to worry about the space you'd require for a proper three-monitor setup. There's also a little menu bar that appears to float at the bottom of the user's field of view that looks like it contains shortcuts and other quick productivity-related features you might access with a tap of the finger.

*"We're going to be the most forward-leaning company on remote work at our scale."*

"In the future, we could create a super-powered augmented workspace with multiple customizable screens in VR, unbounded from the limits of physical monitors. It would leverage technologies like Passthrough to create a mixed reality productivity experience that allows people to switch between real and virtual worlds at any time, improving spatial awareness while offering the flexibility we're accustomed to with laptops and other common devices," reads a blog post Facebook published today. "By combining the flexibility of new inputs like hand tracking with the familiarity of everyday input devices like a keyboard and mouse, we could give people the best of both worlds."

This isn't entirely novel stuff. We've seen demos like this on Microsoft's HoloLens and the Magic Leap One headset. Facebook and Oculus have also shown off similar capabilities in the context of demoing Oculus hand tracking and other features that would be integral when you're actually wearing something on your face while you do meaningful work, such as typing and

reading what we can only hope will be legible text on a virtual screen. (The demo Bosworth shared is captured from the headset itself, so it's hard to tell what it actually looks like from the user end.)

But it's noteworthy that Facebook is now accelerating its work in mixed reality during the COVID-19 pandemic. The company already has an enterprise unit for Oculus dedicated to selling headsets to companies. Facebook and Oculus' joint work on hand tracking, more realistic avatars, spatial audio, and more powerful wireless technology illustrate how seriously the company is committed to the idea of virtual presence and making it as powerful as possible.

But perhaps the biggest signal from Facebook about its ambitions to try and transform remote work came earlier today, when CEO Mark Zuckerberg announced a massive shift in how he plans to operate his company by allowing workers to request permanent remote status and to open up new roles at the company to remote workers, too. While other tech firms have done the same, including Square and Twitter, Facebook is the first major company of its size to make the leap.

"We're going to be the most forward-leaning company on remote work at our scale," CEO Mark Zuckerberg said in an interview with *The Verge*. "We need to do this in a way that's thoughtful and responsible, so we're going to do this in a measured way. But I think that it's possible that over the next five to 10 years – maybe closer to 10 than five, but somewhere in that range – I think we could get to about half of the company working remotely permanently."

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Zuckerberg specifically brought up AR and VR as options that could, in the long term, make remote work more viable by giving remote employees a sense of presence during meetings and other collaborative efforts. "VR and AR is all about giving people remote presence," Zuckerberg said. "So if you're

you're long on VR and AR and on video chat, you have to believe in some capacity that you're helping people be able to do whatever they want from wherever they are. So I think that that suggests a worldview that would lead to allowing people to work more remotely over time."

Zuckerberg says the COVID-19 pandemic and his company's moves to respond to the changes it's forcing on society "will help us advance some of the future technology we're working on around remote presence, because we're just going to be using it constantly ourselves."

He mentions how products like the Facebook Workplace platform and Portal video chat devices are changing how his company works today. Down the line, that will inevitably include AR and VR , too. "Right now, VR and AR is a large group within the company, but it's still somewhat disconnected from the work that most employees are doing on a day-to-day basis. And I think that this could change that sooner," he added. "So that's something that I'm particularly excited about."

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