

# Facebook is testing a wearable that interacts with AR and human neural signals—that could unlock a treasure trove of new types of data

Article

Facebook **released** more details on a buzzy new wearable it's testing that will integrate with AR, VR, and human neural signals. The unnamed device uses **electromyography (EMG)** to translate a user's electrical nerve signals into digital inputs. Here's what that could look like in practice: A wearable user could type words or swipe through a web page simply by making the gestures.

In terms of AR applications, the wearable would let users interact with virtual UIs and objects in a way Facebook likens to using The Force in Star Wars. All of this is still quite far off: According to Facebook VP **Andrew Bosworth per Wired**, the new wearable tech likely wouldn't be available for five to 10 years. Still, if delivered as promised, its arrival could signal a paradigm shift in computing, moving away from physical input devices and toward eventual connections **directly** with users' neural activity. It's worth noting that while the wearable can reportedly register hand gestures without users physically moving their fingers, Bosworth tried to preempt any concerns that the device, and by extension Facebook, could somehow read people's minds: "We don't know what's happening in the brain, which is full of thoughts, ideas, and notions."

**Facebook's wearable would transcend the technological limitations of current XR devices.** While headsets like Facebook-owned **Oculus' Quest** and **Microsoft's HoloLens** feature limited hand tracking via cameras, Facebook's new wearable would offer greater accuracy and precision, enabling greater levels of immersion. Some prototypes of the wearable use haptic feedback, which would make virtual experiences actually feel real.

**Facebook's core business model revolves around gathering and packaging personal information to better sell advertisements** Facebook's hardware ventures—VR headsets, **smart glasses**, a home **smart display**, and a planned **smartwatch**—all exist within the broader context of Facebook's real revenue source: monetizing user data for advertising.

**In this regard, Facebook stands to benefit financially from AR hardware that could unlock novel forms of intimate user data.** Facebook's early push toward a new era of neural input computing presents the company with a unique opportunity to gather new kinds of unfiltered behavioral data directly from the brains of its users. That could prove immensely valuable to advertisers and anyone else who wants to know the exact, unadulterated preferences of Facebook users down to the neurological level. Such a paradigm shift in computing could be

accompanied by an advertising shift toward **neuromarketing**, where advertisers could use neural data to target consumers on an unconscious level.

