

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

META PLATFORMS, INC.,
Petitioner,

v.

MULLEN INDUSTRIES LLC,
Patent Owner.

Case IPR2025-00743
U.S. Patent No. 11,947,716

PETITIONER'S PRELIMINARY REPLY¹

¹ A Preliminary Reply was authorized by the Board via email on August 12, 2025.

The Board should reject Patent Owner’s erroneous construction that seeks to import an unclaimed limitation into claim 16 of the ’716 patent. (POPR, 10-12.)

“We start with the claim language.” *IQRIS Techs. LLC v. Point Blank Enterprises, Inc.*, 130 F.4th 998, 1003 (Fed. Cir. 2023). The claim language at issue recites “wherein a first virtual object is operable to be displayed on said head-mounted display and controlled with manual input.” (’716, claim 16, 18:17-19.) The patent uses this language with its plain and ordinary meaning: a virtual object can be displayed on the head-mounted display, and it can also be controlled with manual input. The claim language does not impose the narrowing limitation Patent Owner seeks to inject: “wherein a first virtual object is operable to be displayed on said head-mounted display and controlled with manual input while it is being displayed.” (See POPR, 10-12.) *IQRIS*, 130 F.4th at 1003 (construing “pull cord” broadly where “[t]he claims say nothing about who or what pulls the pull cord”).

The claimed concept is familiar to anyone who has manually provided an input into a computer that controls an object that can be displayed, such as creating a new folder or opening a new window. The Ohshima reference describes the same concept: a virtual “bullet” can be displayed, and a player operating a gun-shaped controller provides manual input that controls the location, direction, and timing of the virtual bullet. (Pet. 35-38; Ohshima, 6:45-47, 6:57-63, 7:17-38, 9:2-8, Figs. 1, 4, 9.) The location and direction of the displayed virtual bullet are controlled by the

“line-of-fire direction” manually input by the player using the gun-shaped controller. (*See id.*) It is immaterial whether that manual input was provided before or after the time the virtual bullet is first displayed. While the virtual bullet is being displayed, its location and the direction it travels are controlled by the player’s manual input. (*See id.*)

The claim language does not require that the virtual object must be displayed at the same time the manual input is provided. By contrast, claim 16 and other claims expressly recite that certain other functions must occur “simultaneously.” (*E.g.*, claim 16, 18:23-26 (information from camera displayed “simultaneously” with virtual objects), claim 18, 18:35-37 (same), claim 1, 16:67-17:3 (view actual world “simultaneously” with virtual object), claim 14, 18:1-5 (similar).)

The specification does not limit the claimed invention as Patent Owner argues. The specification teaches an open-ended variety of “virtual objects,” such as a virtual “cursor” and virtual “web browser” as shown in Figure 15 and a “virtual email object.” (*E.g.*, ’716, 13:65-14:7, 14:35-48, Fig. 15, claim 9.) A “virtual object” can exist independent of being displayed. It may exist at a certain “locked” location, pitch (angle), and/or distance relative to the user so that it “can only be looked at when a user is looking in a particular direction.” (*Id.*, 14:22-52.) For example, “a user walking down the street” wearing a head-mounted display can “turn his/her head” to see a “pitch-locked and distance locked virtual object.” (*Id.*, 14:35-51.)

The specification further describes that a user's manual input can control a virtual object, such as moving a virtual email object to a "virtual trashcan" and then performing a physical gesture tracked with "[m]otion sensors" (such as "nodding YES") to "determine if the email should be purged or not." (*Id.*, 12:46-54.) The specification does not describe that the virtual email object is being displayed at the time it is purged from the "virtual trashcan" as controlled by manual input. Furthermore, parameters controlling a virtual object "can be changed at any time," regardless of whether the virtual object is currently being displayed. (*Id.*, 14:51-52.) The patent also teaches that "the invention is not limited to the disclosed methods, systems and apparatuses" and "may take many forms other than those disclosed." (*Id.*, 16:47-51.)

Consistent with these broad teachings, the '716 patent never disavows embodiments where a virtual object is displayed after the controlling manual input is provided. *Thorner v. Sony Ent. Am. LLC*, 669 F. 3d 1362, 1366-67 (Fed. Cir. 2012) (discussing the "exacting" standard required to find disavowal). Patent Owner would wrongly limit the claimed invention to exemplary embodiments where a virtual object is displayed before and during the time a user provides manual input. (*See* POPR at 10-12.) That would be error because the claimed invention is defined by "the claims, not the preferred embodiments." *IQRIS*, 130 F.3d at 1004. (*See also* '716, 16:47-51.)

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify, pursuant to 37 C.F.R. Section 42.6, that a complete copy of the attached **PETITIONER'S PRELIMINARY REPLY** is being served via electronic mail on the 19th day of August 2025, upon Patent Owner by serving Patent Owner's counsel of record in this proceeding as follows:

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