NOTE: This disposition is nonprecedential.

United States Court of Appeals for the Federal Circuit

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SONY INTERACTIVE ENTERTAINMENT LLC,
Appellant

v.

INTELLECTUAL PIXELS LIMITED,
Appellee

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2022-2118

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Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. IPR2021-00237.

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Decided: October 13, 2023

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JAMES MURPHY DOWD, Wilmer Cutler Pickering Hale and Dorr LLP, Los Angeles, CA, argued for appellant. Also represented by HENRY NIKOGOSYAN; MARK DONNELL FLANAGAN, JOSEPH F. HAAG, Palo Alto, CA.

DOUGLAS R. WILSON, Armond Wilson LLP, Austin, TX, argued for appellee. Also represented by MICHELLE ARMOND, JOSEPHER LI, PATRICK MALONEY, Newport Beach, CA.

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Before DYK, PROST, and STOLL, *Circuit Judges.*

DYK, *Circuit Judge.*

Sony Interactive Entertainment, LLC ("Sony") appeals the Patent Trial and Appeal Board's ("the Board") final written decision declining to find claims of U.S. Patent No. 10,681,109 ("the '109 patent") unpatentable as obvious. We *vacate* and *remand.*

BACKGROUND

Intellectual Pixels Limited ("IPL") owns the '109 patent, entitled "Image Display System with Visual Server," which concerns "an image display system and method of displaying images on a client through the use of the resources of a remote visual server." '109 patent, col. 3, ll. 41–43. Each client generates image-modifying data and transmits that data to the visual server. "[T]he server selectively receives image-modifying data from one or more clients corresponding to a generated image, and the server generates a modified image based on the image-modifying data, and then transmits the modified image as compressed data back to the client." '109 patent, col. 3, ll. 52–57. The client is capable of uncompressing the data and displaying the new image.

Independent claim 1 of the '109 patent is representative:

1. A method of hosting an interactive software application comprising:

running at a server the interactive software application;

receiving at the server user input signals from a client device, wherein the user input signals are used to control updating of the state of the interactive software application;

> <u>generating at least one updated image at the server in response to updating the state of the interactive software application;</u> and
>
> compressing the at least one updated image and transmitting the compressed updated image to the client device, wherein the server transmits the updated image as a compressed frame that can be decompressed and displayed as an updated image at the client device.

'109 patent, col. 9, l. 55–col. 10, l. 2 (emphasis added). Independent claim 8 recites the same "generating" limitation.

On December 4, 2020, Sony filed a petition for *inter partes* review with the Board, challenging claims 1–18 of the '109 patent. In its preliminary response, IPL disclaimed claims 13–18. Sony argued that claims 1–12 were obvious over several different combinations of prior art references. As to each combination, Sony argued that U.S. Patent No. 6,409,602 ("Wiltshire") disclosed the "generating" limitation. The Board instituted review on claims 1–12 in IPR2021-00237.

In its final written decision, the Board ruled that "generating an updated image, as claimed, requires creation of a new image in response to updating the state of the interactive software application." *Sony Interactive Ent. LLC v. Intell. Pixels Ltd.*, No. IPR2021-00237, 2022 WL 2124910, at *8 (P.T.A.B. June 8, 2022) ("*'109 Patent Decision*"). The Board found that "modifying what is displayed on the client device merely by selecting a pre-existing image does not meet the 'generating' limitation." *Id.* The Board determined that Wiltshire only disclosed selecting an already available image to display on the client, rather than creating a new image. Because all of Sony's prior art combinations relied on Wiltshire to disclose the "generating" limitation, the Board concluded that claims 1–12 were not shown to have been obvious.

Sony appeals. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A).

DISCUSSION

"In reviewing the Board's determination on the question of obviousness, we review the Board's legal conclusions de novo and its factual findings for substantial evidence." *Becton, Dickinson & Co. v. Baxter Corp. Englewood*, 998 F.3d 1337, 1339 (Fed. Cir. 2021) (internal quotation marks, citation, and alterations omitted). "What a reference teaches and the differences between the claimed invention and the prior art are questions of fact which we review for substantial evidence." *In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268, 1280 (Fed. Cir. 2015).

The sole issue on appeal is whether the Board properly determined that Wiltshire does not teach the "generating" limitation. The Board determined "that generating an updated image, as claimed, requires creation of a new image in response to updating the state of the interactive software application." *'109 Patent Decision*, 2022 WL 2124910, at *8. The Board further clarified "modifying what is displayed on the client device merely by selecting a pre-existing image does not meet the 'generating' limitation." *Id.* For purposes of deciding this case, we assume the Board's construction of the "generating" limitation is correct but conclude there is not substantial evidence to support the Board's determination that Wiltshire does not disclose the "generating" limitation under the Board's construction.

Wiltshire teaches a system that "execut[es] gaming programs on a server/host computer" played on client terminals. Wiltshire, J.A. 1320, at abstract. Wiltshire defines "games" and "gaming" to "include all types of electronic, electromechanical or mechanical gambling and casino game facsimiles . . . video based games such as Doom, Pong, Packman, Myst; [and] video games based on sports," among other types of games. Wiltshire, J.A. 1340, col. 1, ll. 26–44. The parties agree that executing Doom requires

generating new images. *See '109 Patent Decision*, 2022 WL 2124910, at *10 (noting petitioner's expert's testimony that using pre-loaded images for Doom would "make no sense"); Oral Argument at 33:30–33:40 (IPL conceding that Doom requires generating new images).

In Wiltshire, the system "execute[s] [the] game program on [the] server." Wiltshire, J.A. 1324; J.A. 1343, col. 7, ll. 8–9. The system then determines whether to "[d]isplay/update image?" Wiltshire, J.A. 1324; Wiltshire, J.A. 1343, col. 7, ll. 8–12. "The image is generated by [the] game computer program [] and passed to [the] server/host interface program . . . ." Wiltshire, J.A. 1343, col. 7, ll. 18–19. "In turn, the image is transferred over communication pathways [] to [the] client/terminal computer [] via the network services provided by [the] server operating system []." *Id.* at col. 7, ll. 20–22. The "[c]lient/terminal program [] then causes the image to be displayed on a screen of client/terminal computer." *Id.* at col. 7, ll. 25–27. If the client sends back input commands, the process repeats itself and the system will update the image on the screen. Figure 2 of Wiltshire is a flow diagram illustrating this process.

The Board interpreted Wiltshire's Figure 2 to just state "display/update image?" without "explain[ing] what 'display/update image?' means." *'109 Patent Decision*, 2022 WL 2124910, at *8. The Board, therefore, determined that Wiltshire's Figure 2 only disclosed asking the question of updating the image and not how the image was to be modified. The Board erred in reaching this conclusion by ignoring a portion of the specification which explains that if the answer is yes, "[t]he *image is generated* by game computer program 112," i.e., a program on the server. Wiltshire, J.A. 1343, col. 7, ll. 18–19 (emphasis added).

There is nothing in Wiltshire that suggests that the term "generated" has a different meaning than the term "generating" in the '109 Patent. To the contrary, Figure 2, and the text in Wiltshire describing it, J.A. 1343, col. 7, ll.

7–45, and descriptions of other embodiments in Wiltshire, J.A. 1343, col. 8, ll. 2–7 (disclosing in some embodiments only parts of an image are updated or modified), demonstrate that Wiltshire discloses generation of a new image, contrary to the Board's conclusions.

The Board, however, concluded the expert testimony of Dr. Hart, the patent owner's expert, supported its conclusion that Wiltshire does not disclose creating a new image. As the Board noted, Dr. Hart testified "that a person of ordinary skill in the art would have understood Wiltshire's disclosure 'that the "image [] generated by the game computer program" *could include* the contents of a pre-existing compressed image file,' rather than requiring the image be updated." *'109 Patent Decision*, 2022 WL 2124910, at *10 (emphasis added).

The Board's conclusions based on Dr. Hart's testimony that Wiltshire does not disclose generating a new image are incorrect. The record shows Dr. Hart merely testified that the updating or modifying images *could be* through selecting pre-existing images, but he said nothing about whether Wiltshire also discloses the creation of new images. Nowhere did Dr. Hart testify that Wiltshire does not disclose "generating images" under the Board's construction. Dr. Hart's testimony does not support the Board's finding that Wiltshire only discloses selecting pre-existing images.

Petitioner's expert, Dr. Fuchs, testified that "Wiltshire discloses that the decision to 'update' or 'modify' an image at the server is in response to the updated game state running on the server, meaning that *the server will, at times, update or modify the image in response to the updated game state. . . .*" *Id.* at *9 (emphasis in original). The Board rejected Dr. Fuchs' testimony because it found Wiltshire's disclosure did "not support that 'updating' or 'modifying' the image displayed on the client <u>necessarily requires</u> *generating* an updated image in response to the updated game

state instead of simply selecting a pre-existing image to display." *Id.* (first emphasis added). But the Board made the same mistake with respect to Dr. Fuchs' testimony as it did with respect to Dr. Hart's. The Board's claim construction does not require Wiltshire to disclose that images must be generated *only* through creating a new image; it requires the ability to generate new images in some instances. The Board's construction would not exclude a system that both generates images by creating new images and pre-selecting existing images. That Wiltshire discloses that selecting pre-existing images *can* be used as a method of generating images in some instances does not mean that Wiltshire does not also disclose creating a new image as another way of generating images. Dr. Fuchs' testimony that Wiltshire discloses the "generating" limitation under the Board's construction is uncontradicted.

The Board similarly erred by focusing on embodiments in Wiltshire where images are pre-loaded. The existence of those examples does not exclude other examples where new images are created. Although both parties agree the game Doom requires creating new images, the Board determined that listing Doom in the specification was not a sufficient disclosure because "Wiltshire does not teach using the operation disclosed in Figure 2 with Doom" and it found "nothing in Wiltshire to suggest that a person of ordinary skill in the art would have understood that Wiltshire's system could possibly have supported that game in the manner." *Id.* at *10; *see id.* at *11 ("Wiltshire's disclosure only provides details as to how its system is used to implement casino games . . . ."). The Board understood the significance of Doom to be just one game in a "lengthy list of games that Wiltshire states as included in the definition of the term 'game' or 'gaming.'" *Id.* at *10.

The Board erred in its interpretation of Wiltshire as Wiltshire specifically recites "[t]he terms 'game' and 'gaming,' as used herein, include all types of electronic, electro-mechanical or mechanical gambling and casino game

facsimiles . . . video based games such as Doom, Pong, Packman, Myst; [and] video games based on sports . . . ." Wiltshire, J.A. 1340, col. 1, ll. 26–44. The use of the phrase "as used herein" signals that this sentence is definitional. *See Kyocera Senco Indus. Tools Inc. v. Int'l Trade Comm'n*, 22 F.4th 1369, 1378 (Fed. Cir. 2022) (finding lexicography by use of the phrase "referred to herein"); *Abbott Lab'ys v. Andrx Pharms., Inc.*, 473 F.3d 1196, 1210 (Fed. Cir. 2007) (finding the patent "unambiguously provides definitions of other claim terms" by using the phrase "as used herein"). The terms "computer gaming program" or "computer gaming system," covers Doom, and Wiltshire recites that "FIG. 2 is a flow diagram of operation 200 of *computer gaming system 100*," Wiltshire, J.A. 1343, col. 7, ll. 7–8 (emphasis added). Therefore, as discussed earlier, Wiltshire explicitly discloses that Figure 2 is to be applied to games like Doom.

The Board's exclusion of Doom seems to have been based on finding that a person of ordinary skill in the art would not be enabled to practice Wiltshire with a game like Doom. *'109 Patent Decision*, 2022 WL 2124910, at *10 ("[W]e find nothing in Wiltshire to suggest that a person of ordinary skill in the art would have understood that Wiltshire's system could possibly have supported that game in the manner proposed by [p]etitioner."). But that does not mean that Wiltshire does not disclose applying the system of Wiltshire to a game like Doom. *See Raytheon Techs. Corp. v. Gen. Elec. Co.*, 993 F.3d 1374, 1380 (Fed. Cir. 2021) ("In general, a prior art reference asserted under [35 U.S.C.] § 103 does not necessarily have to enable its own disclosure, i.e., be 'self-enabling,' to be relevant to the obviousness inquiry."); *Beckman Instruments, Inc. v. LKB Produkter AB*, 892 F.2d 1547, 1551 (Fed. Cir. 1989) ("Even if a reference discloses an inoperative device, it is prior art for all that it teaches."). The Board erred when it narrowed the disclosure of Wiltshire to exclude Doom and only focused on the more detailed examples. *See CRFD Rsch., Inc. v. Matal*, 876 F.3d 1330, 1349 (Fed. Cir. 2017) ("A reference

must be considered for everything that it teaches, not simply the described invention or a preferred embodiment." (quoting *In re Applied Materials, Inc.*, 692 F.3d 1289, 1298 (Fed. Cir. 2012))). Therefore, the Board erred by not crediting Wiltshire's disclosure of applying its system to video games like Doom, which require "generating" new images under the Board's construction.

CONCLUSION

The Board's determination that Wiltshire does not disclose the "generating" limitation under the Board's construction is not supported by substantial evidence. We need not reach the issues of whether the Board's construction is correct or whether the Board committed an Administrative Procedure Act violation here in adopting a new claim construction without providing an opportunity to respond.

Because the Board's finding was not supported by substantial evidence and was central to its non-obviousness determination, we vacate the Board's final written decision, and remand for further proceedings consistent with this opinion.

VACATED AND REMANDED

COSTS

Costs to Appellant.