

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PLR WORLDWIDE SALES LTD.,
Petitioner,

v.

FLIP PHONE GAMES INC.,
Patent Owner.

IPR2024-00133
Patent 8,688,089 B2

Before DAVID C. McKONE, DANIEL J. GALLIGAN, and
SCOTT B. HOWARD, *Administrative Patent Judges*.

Opinion for the Board filed by *Administrative Patent Judge* HOWARD.

Opinion Concurring filed by *Administrative Patent Judge* GALLIGAN.

Opinion Dissenting filed by *Administrative Patent Judge* McKONE.

HOWARD, *Administrative Patent Judge*.

JUDGEMENT
Final Written Decision
Determining All Challenged Claims Unpatentable
35 U.S.C. § 318(a)

I. INTRODUCTION

A. *Background and Summary*

PLR Worldwide Sales Ltd. (“Petitioner”) filed a Petition for *inter partes* review (Paper 2, “Pet.”) challenging claims 1–10 (“challenged claims”) of U.S. Patent No 8,688,089 B2 (Ex. 1001, “the ’089 patent”). Flip Phone Games Inc. (“Patent Owner”) filed a Preliminary Response (Paper 7, “Prelim. Resp.”). With our authorization, Petitioner filed a Reply to Patent Owner’s Preliminary Response (Paper 8) and Patent Owner filed a Preliminary Sur-reply (Paper 9).

We initially denied institution of *inter partes* review. Paper 10 (“Decision Denying Institution”). Petitioner filed a request for Director Review (Paper 11), and the Director vacated and remanded our Decision Denying Institution (Paper 12 (“Remand Decision” or “Remand Dec.”)). Specifically, the Director ordered us to

issue a new decision on institution resolving the claim construction of “a non-promotional background object.” Consistent with *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313–14 (Fed. Cir. 2005), the Board should resolve the proper meaning of that term by first assessing the intrinsic evidence, and then consulting extrinsic evidence if necessary. *See, e.g., Samsung Elecs. Co., Ltd. v. Slyde Analytics, LLC*, IPR2024-00040, Paper 14 at 7–8 (Vidal Aug. 2, 2024) (discussing the *Phillips* framework). The Board shall consider all remaining necessary issues, and determine whether to institute trial consistent with this decision.

Id. at 7–8 (footnote omitted). We construed the limitations, as required by the Director’s decision and, based on that construction, instituted an *inter partes* review of claims 1–10 on all grounds of unpatentability alleged in the Petition. Paper 14 (“Inst. Dec.” or “Institution Decision”).

After institution of trial, Patent Owner filed a Response (Paper 22, “PO Resp.”), Petitioner filed a Reply to Patent Owner’s Response (Paper 23, “Pet. Reply”), and Patent Owner filed a Sur-reply to Petitioner’s Reply (Paper 25, “PO Sur-reply”).

An oral hearing was held on September 10, 2025, and the record contains a transcript of this hearing. Paper 33 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a). For the reasons that follow, we determine that Petitioner has shown by a preponderance of the evidence that challenged claims 1–10 are unpatentable.

B. Real Parties in Interest

Petitioner identifies itself and Playrix Holdings Ltd. as the real parties in interest. Pet. 2; Paper 6, 1 (Petitioner’s Amended Mandatory Notices).

Patent Owner identifies itself as the real party in interest. Paper 3, 1 (Patent Owner’s Mandatory Notices).¹

C. Related Matters

Both parties identify the following district court proceeding as a related matter: *Flip Phone Games, Inc. v. PLR Worldwide Sales Limited*, Case No. 2:23-cv-00139-JRG (E.D. Tex.). Pet. 2–3; Paper 3, 1.

The parties also identify additional *inter partes* review proceedings. *See* Pet. 3; Paper 3, 1.

D. The ’089 Patent

The ’089 patent is titled “Methods and Systems for Providing In-Game Hot Spots” and “relates generally to systems and methods for

¹ Patent Owner did not paginate its Mandatory Notices. All citations are based on the page after the title page being page 1.

providing in-game hot spots to a mobile communication device.” Ex. 1001, code (54), 1:6–8. “A hot spot can be thought of as a location or item, sometimes hidden within the game, that triggers additional specialized content when activated by a user or some other in-game element.” *Id.* at 1:63–66; *see also id.* at 4:7–9 (“Generally, a hot spot is an in-game feature that includes an activation element and a content element that is triggered by the activation element.”).

The ’089 patent explains that “all video games tend to have a popularity life span” and “[a]s game elements become increasingly familiar to players, the game may hold less surprises and/or no longer present a challenge to the user,” such that “games that hold user interest for longer period of time are more valuable than games that users leave behind quickly.” Ex. 1001, 1:28–41. Taking these considerations into account, the ’089 patent discloses systems and methods that provide hot spots of triggered content within the gaming environment of a mobile video game on a mobile communication device. *Id.* at 1:60–63. According to the ’089 patent, providing hot spots of triggered content within a mobile gaming environment, and updating in-game hot spot information, may prolong user interest in the game, as it may “allow game companies to keep game elements fresh and prolong user enjoyment of the game.” *Id.* at 1:66–2:2, 4:17–24. For example, new interactive items and/or hidden features may be placed within a particular scene in the game so that the user has something new to look at or trigger (sometimes unexpectedly). *Id.* at 4:25–31.

The ’089 patent describes a mobile communication device programmed to: operate a video game; contact a remote system to check for hot spot information to use in the video game; download the hot spot

information to the communications device from a server; designate a location in-game for activating the hot spot; detect manipulation of the designated location as activating the hot spot; and display content when the device's user activates the hot spot. Ex. 1001, 2:11–19.

A hot spot's activation element may comprise an area location or an item, sometimes hidden in the game, that can be triggered by a user or some other in-game element. Ex. 1001, 2:27–29. The hot spot information may identify content (a content element) to be displayed when the hot spot is activated, such as a promotional message; non-promotional content; a message including a hint related to the game; and a new game level or an item useful in playing the game. *Id.* at 2:34–44. More particularly, hot spot information may include information that allows the mobile communication device to designate a location in-game (such as an item or hidden area) for activating the hot spot. *Id.* at 4:9–16. When the location is electronically manipulated in some way during game play, such as by touching it, running over it, hitting it with an item, etc., the content associated with the hot spot may be displayed. *Id.*

Figures 2A and 2B of the '089 patent are reproduced below.

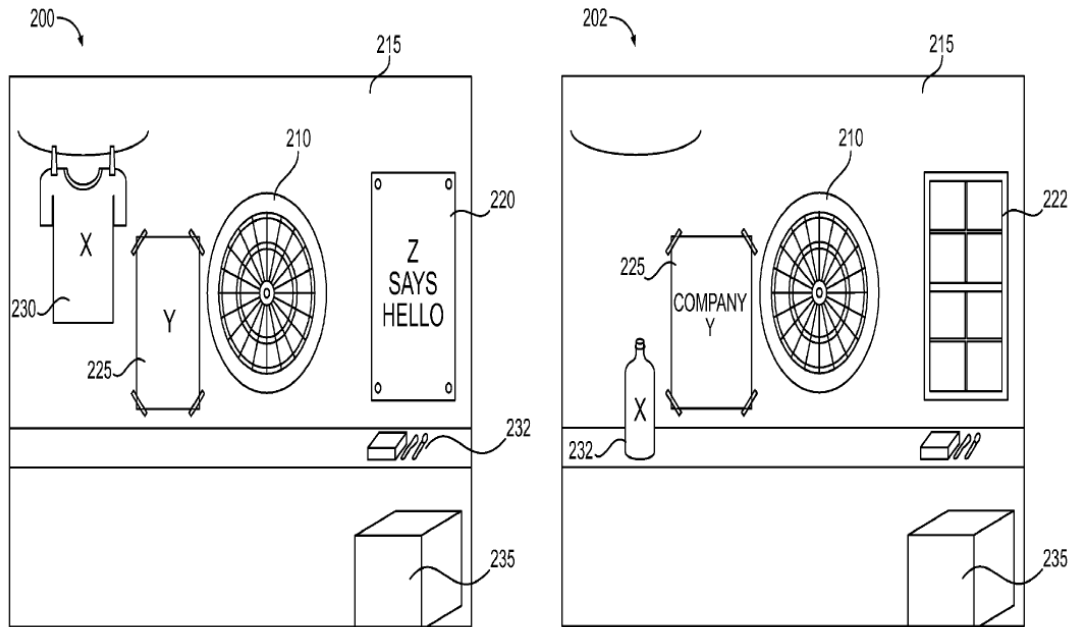


FIG. 2A

FIG. 2B

Figures 2A and 2B “are diagrams of an exemplary scene in a video game played on a mobile communication device.” Ex. 1001, 3:43–45; *see also id.* at 6:36–40. The exemplary scene is from a darts game, which includes dart board 210. *Id.* at 6:36–43. Figure 2A shows several items 210, 220, 225, 230, and 235 within scene 200. *Id.* at 6:44–54. Any of these items may be defined as hot spots on the mobile communication device. *Id.* For instance, if the user throws a dart that hits shirt 230, a promotional message associated with third party X may pop up on screen. *Id.* Messages might also be displayed if the user activates hot spots on poster 225 or chalk board 220. *Id.* Additionally, if the user activates a hot spot defining a piece of chalk 232, a new message might be drawn on chalk board 220. *Id.*

As shown in Figure 2B, a hot spot may be assigned to window 222. Ex. 1001, 7:12–24. When the user hits the window with a dart, the hot spot

is activated, and activation causes the mobile communication device to display content, such as an animation of window 222 shattering. *Id.* The hot spot information may include coordinates for defining the placement and/or boundaries of the window, the window graphic, the shatter animation content, and coordinates for displaying the animation. *Id.*

E. *Illustrative Claim*

Challenged claims 1 and 6 are independent claims, and claim 1, reproduced below, is illustrative of the subject matter of the challenged claims.

1. [1(a)] A method for providing a hot spot associated with a mobile video game, the mobile video game being operable on a mobile communication device, the method comprising the steps of:
 - [1(b)] storing hot spot information on a computer-readable medium;
 - [1(c)] receiving a communication from a mobile communication device;
 - [1(d)] determining the hot spot information to provide to the mobile device based upon the communication, the hot spot information comprising:
 - [1(d)(i)] a location in-game associated with activating the hot spot, wherein the location in-game is represented by a non-promotional background object; and
 - [1(d)(ii)] hidden promotional content for presenting to the user, within a gaming environment of the mobile video game, when the hot spot is activated;
 - and
 - [1(e)] uploading the hot spot information to the mobile communication device.

Id. at 14:16–34; *see also* Pet. vii (adding brackets).

F. *Prior Art and Asserted Grounds*

Petitioner asserts that claims 1–10 are unpatentable on the following grounds:

Claims Challenged	35 U.S.C. § ²	References/Basis
1–3, 6–8	103(a)	Ho, ³ Jiau, ⁴ Choi ⁵
4, 5, 9, 10	103(a)	Ho, Jiau, Choi, Ellis ⁶
1–10	103(a)	Sturman, ⁷ Ho

Petitioner also relies on the testimony of José P. Zagal, Ph.D.

(Exs. 1003, 1020). Patent Owner relies on the testimony of Dr. Robert Akl, D. Sc. (Ex. 2005). Neither Dr. Zagal nor Dr. Akl was cross-examined in this proceeding.

II. ANALYSIS

A. *Legal Standards*

In *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966), the Supreme Court set out a framework for assessing obviousness under 35 U.S.C. § 103 that requires consideration of four factors: (1) the “level of

² The Leahy-Smith America Invents Act (“AIA”) included revisions to 35 U.S.C. § 103 that became effective on March 16, 2013. Because the application that issued as the ’089 patent was filed before March 16, 2013, we apply the pre-AIA version of the statutory basis for unpatentability. See Ex. 1001, code (22).

³ WO 2008/008038 A1, published January 17, 2008, filed designating the United States July 12, 2006 (Ex. 1004).

⁴ WO 2000/70489, published November 23, 2000 (Ex. 1005).

⁵ US 2007/0174490 A1, published July 26, 2007, filed January 19, 2007 (Ex. 1008).

⁶ US 8,825,521 B2, issued September 2, 2014, filed August 30, 2006 (Ex. 1007).

⁷ WO 2006/071246 A1, published July 6, 2006 (Ex. 1006).

ordinary skill in the pertinent art,” (2) the “scope and content of the prior art,” (3) the “differences between the prior art and the claims at issue,” and (4) if in evidence, “secondary considerations” of non-obviousness such as “commercial success, long felt but unsolved needs, failure of others, etc.” *Id.* at 17–18. “While the sequence of these questions might be reordered in any particular case,” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 407 (2007), the U.S. Court of Appeals for the Federal Circuit has repeatedly emphasized that “it is error to reach a conclusion of obviousness until all those factors are considered,” *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1328 (Fed. Cir. 2016). Because Patent Owner does not address objective evidence of non-obviousness, we focus solely on the first three *Graham* factors.

B. *Level of Ordinary Skill in the Art*

The level of ordinary skill in the pertinent art at the time of the invention is a factor in how we construe patent claims. *See Phillips*, 415 F.3d at 1312–13. It is also one of the factors we consider when determining whether a patent claim would have been obvious over the prior art. *See Graham*, 383 U.S. at 17–18.

Factors pertinent to a determination of the level of ordinary skill in the art include “(1) the educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of active workers in the field.” *Envtl. Designs, Ltd. v. Union Oil Co. of Cal.*, 713 F.2d 693, 696–97 (Fed. Cir. 1983) (citing *Orthopedic Equip. Co. v. All Orthopedic Appliances, Inc.*, 707 F.2d 1376, 1381–82 (Fed. Cir. 1983)). “Not all such factors may be present in every

case, and one or more of these or other factors may predominate in a particular case.” *Id.*

Petitioner argues that a person having ordinary skill in the art at the time of the invention would have had “an undergraduate degree in game design, computer science, computer engineering, or a related field, with at least two years of experience working with computer gaming systems or software application development,” and that “[l]ess work experience may be compensated by a higher level of education or vice versa.” Pet. 12 (citing Ex. 1003 ¶¶ 67–72).

Patent Owner argues that a person having ordinary skill in the art “would have a bachelor’s degree in electrical engineering, computer engineering, computer science, or a similar field, along with one to two years of experience developing or programming video games or video game systems, or similar types of computer systems.” PO Resp. 2 (citing Ex. 2005 ¶ 29). Additionally, Patent Owner argues that the person having ordinary skill in the art could “have additional education that might substitute for some of the experience, and additional experience might substitute for some of the educational background.” *Id.* (citing Ex. 2005 ¶ 29). According to Patent Owner, Petitioner’s proposal does not require experience in programming video games. *Id.* However, Patent Owner states, “[t]his difference does not materially affect the analysis presented below.” *Id.*

We see very little difference between the parties’ respective proposals. We adopt Patent Owner’s marginally more specific proposal as it better reflects the ’089 patent. Additionally, because we would reach the same

conclusions under Petitioner’s proposal, we agree with Patent Owner that this does not affect our analysis.

C. *Claim Construction*

We apply the same claim construction standard used in the federal courts, in other words, the claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b), which is articulated in *Phillips*, 415 F.3d at 1303. *See* 37 C.F.R. § 42.100(b). Under the *Phillips* standard, the “words of a claim ‘are generally given their ordinary and customary meaning,’ which is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Phillips*, 415 F.3d at 1312–13. “There are only two exceptions to this general rule: 1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution.” *DDR Holdings, LLC v. Priceline.com LLC*, 122 F.4th 911, 915 (Fed. Cir. 2024) (quoting *Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012)).⁸ “To act as its own lexicographer, a patentee must ‘clearly set forth a definition of the disputed claim term’ other than its plain and ordinary meaning” and “‘clearly express an intent’ to redefine the term.” *Thorner*, 669 F.3d at 1365 (quoting *Helmsderfer v. Bobrick Washroom Equip., Inc.*, 527 F.3d 1379, 1381 (Fed. Cir. 2008)).

Although neither party requested a claim construction prior to institution (*see* Pet. 13; Prelim. Resp.), we preliminary construed the term

⁸ Because Petitioner does not argue that there was a disclaimer (Tr. 8:1–9), we do not that analyze that exception.

“non-promotional background object” to mean “an object that is not in the foreground and does not display a promotional message unless a hot spot is activated” (Inst. Dec. 18).

Petitioner argues that because “background object” relates to the content of a communication, under the printed matter doctrine that portion of the claim should not be given patentable weight. Pet. Reply 3–6.

Additionally, if the term is given patentable weight, Petitioner argues that background should be construed based on objective characteristics. Pet. Reply 7–11. According to Petitioner, based on the prosecution history, it means “not needed or required in order to play the game.” *Id.* at 12–13 (citing Ex. 1020 ¶¶ 28–29; Ex. 1002, 85–86).

Patent Owner argues that our preliminary construction was correct. PO Resp. 8–9; PO Sur-reply 1–7. Patent Owner further argues that the limitation should be given patentable weight. PO Resp. 11–17; PO Sur-reply 7–9.

For the reasons discussed below, on the full trial record, considering all the evidence and arguments, we conclude that the phrase “non-promotional background object” is entitled to patentable weight, and we maintain our preliminary construction that the phrase means an object that is not in the foreground and does not display a promotional message unless a hot spot is activated.

1. “Background Object”

Claims 1 and 6 recite “a location in-game associated with activating the hot spot, wherein the location in-game is represented by a non-promotional background object.” Ex. 1001, 14:27–29, 14:62–64. We break our analysis of the construction of the limitation into two parts. First, we

address whether the term should be given patentable weight based on the printed matter doctrine. Second, we address the meaning of the term.

a) Is a “Background Object” Printed Matter?

Petitioner argues that because background⁹ lacks any functional or structural relationship to the underlying game, based on the printed matter doctrine, “background object” should not be given patentable weight. Pet. Reply 2–6. Specifically, Petitioner argues that “the ’089 patent does not identify any functional or structural differences between hot spots associated with an in-game location ‘represented by a non-promotional background object’ and hot spots associated with a promotional or foreground object.” Pet. Reply 4 (citing Ex. 1020 ¶¶ 12–16). Petitioner further argues that although the prosecution history refers to chalk board 220 as being in the background, “the specification does not indicate any functional or structural difference between this purported ‘background’ hot spot and any hot spots in the ‘foreground’ of the scene.” *Id.* at 4–5 (citing Ex. 1001, 6:36–54). According to Petitioner, because “‘background’ describe[s] the non-functional appearance of an object in a game, [that term] should receive no patentable weight under the printed matter doctrine.” *Id.* at 2 (citing *Praxair*

⁹ Petitioner also argues that “non-promotional . . . object” should not be given patentable weight for the same reasons. Pet. Reply 2–6. Because we are able to reach our determinations without deciding whether “non-promotional . . . object” is entitled to patentable weight, we do not decide the issue. See *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (noting that “we need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

Distribution, Inc. v. Mallinckrodt Hosp. Prods. IP Ltd., 890 F.3d 1024, 1031–32 (Fed. Cir. 2018)); *see also id.* at 5.

Petitioner further argues that *In re Distefano*, 808 F.3d 845, 848 (Fed. Cir. 2015) and *IOENGINE, LLC v. Ingenico Inc.*, 100 F.4th 1395, 1404 (Fed. Cir. 2024) are inapposite. Pet. Reply 5–6. Petitioner argues that “[a]lthough the Federal Circuit recognized that the web assets in *Distefano* and the encrypted communications in *IOENGINE* may convey information, the **content** of that information was not claimed; in *Distefano*, the assets’ source or ‘origin’ was claimed, and in *IOENGINE*, the ‘form’ of the communications was claimed.” *Id.* at 6 (citing *Distefano*, 808 F.3d at 851; *IOENGINE*, 100 F.4th at 1404–05). In this case, Petitioner argues, “the term[] . . . ‘background’ describe[s] and claim[s] the **content** of the claimed ‘objects,’ not their origin or form.” *Id.*

We are not persuaded by Petitioner’s argument.¹⁰ We view the ’089 patent’s recitation of “background object” as similar to the “encrypted communications” recited in the claims addressed in *IOENGINE*. As the Federal Circuit explained, “[t]he fact that there is a communication itself is not content; content is what the communication actually says.” *IOENGINE*, 100 F.4th at 1404. “Printed matter encompasses *what* is communicated—the content or information being communicated—rather than the act of a communication itself.” *Id.* In this case, “background” refers to the location of an object on the screen, not to the content of any message. Accordingly, just as in *IOENGINE*, because the claimed “background object” is not being

¹⁰ We note that Patent Owner argues that this is an improper new argument. *See* PO Sur-reply 1. Because we specifically requested the parties brief this issue (Inst. Dec. 19), it was not improper for Petitioner to raise it.

claimed for any content that is being communicated, the claims do not constitute printed matter. *See id.* at 1404–05.

Moreover, claims 1 and 6—the only independent claims—simply recite determining what hot spot information, including a non-promotional background object, should be provided to a mobile device and then downloading that information. Ex. 1001, 14:16–34, 14:48–67. The claims do not recite displaying the non-promotional background object. *Id.* As the Federal Circuit has stated, “[t]he common thread amongst all of these [printed matter] cases is that printed matter must be matter claimed for what it communicates.” *Distefano*, 808 F.3d at 851. Because the background object is not required to be displayed, it is not claimed for what it communicates, and the printed matter doctrine does not apply.

Accordingly, the claim term “background object” does not constitute printed matter and thus does not lack patentable weight for that reason.

b) Meaning of “Non-Promotional Background Object”

Petitioner states that to the extent the Board gives patentable weight to “non-promotional,” it does not challenge the Board’s preliminary construction of a “nonpromotional . . . object” as an object that “does not display a promotional message unless a hot spot is activated.” Pet. Reply 7 n.2. Accordingly, we do not address that portion of the construction and maintain our preliminary construction from the Institution Decision. Thus, all that remains is to determine the meaning of “background object.”

Consistent with *Phillips*, we begin with the “ordinary and customary meaning” of the words of the claims. *Phillips*, 415 F.3d at 1312–13 (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). The parties agree that the ordinary and customary meaning of

the phrase “background object” is consistent with the dictionary definition and means an object that is “not in the foreground.” Tr. 8:10–16; PO Resp. 8–9; Ex. 2008 (AMERICAN HERITAGE DICTIONARY 2006); *see also* Ex. 2009 (“the scenery or ground behind something,” “the part of a painting representing what lies behind objects in the foreground”) (MERRIAM-WEBSTER DICTIONARY 2007); Ex. 2010 (“the part of a picture or pattern that is behind the main people or things in it” (MACMILLIAN ENGLISH DICTIONARY 2007); Ex. 2011 (“the ground or parts, as of a scene, situated in the rear (opposed to *foreground*)”) (RANDOM HOUSE WEBSTER’S COLLEGE DICTIONARY 2005).

Having determined the ordinary and customary meaning, we need only look to see if there is some reason—such as the applicant acting as a lexicographer or the ordinary and customary meaning being improperly subjective—why the ordinary and customary meaning is not controlling.

(1) The Applicant Did Not Act as a Lexicographer

The term “background” was added to the claims as a modifier to “non-promotional object” in an Amendment (Ex. 1002, 79–87). At the time the claims were amended, they stood rejected as obvious over two references, one of which was Chu,¹¹ which the Examiner found taught a “non-promotional object.” Ex. 1002, 117 (claim 15), 96–98 (pending rejection of claim 15). In addition to amending the claims (*id.* at 80), the applicant presented arguments as to why Chu’s “pit stop” and “treasure chest” were not “non-promotional background objects” (*id.* at 85–86).

¹¹ US 2006/0111979 A1, published May 25, 2006 (Ex. 1021).

We do not find that the prosecution history demonstrates that the applicant acted as a lexicographer by “clearly set forth a definition of the disputed claim term,” or “clearly express[ing] an intent to define the term” as required by *Thorner*, 669 F.3d at 1365. Instead, the language in the prosecution history is consistent with the ordinary and customary meaning. That is, the applicant focuses on the location of the object relative to the area of game play, *i.e.*, the foreground. For example, the applicant distinguishes Chu’s object as not being “background objects” because they “are *featured in the forefront of [the] game play* as primary objects to be manipulated or used during game play (*see* Chu at ¶¶ [0063]–[0065]).” Ex. 1002, 85 (emphasis added).¹² The applicant continued by arguing that Chu’s objects “exist in the background, *outside of the primary focus of game play and as unexpectedly interactive components*, and are not themselves needed or required in order to play the game.” *Id.* If anything, this demonstrates an intent of the applicant to use the customary and ordinary meaning—not in the foreground—and not act as a lexicographer.

Petitioner argues that “the prosecution history make[s] clear that the applicant did not use the term ‘background’ to refer to the objects ‘in the distance’ or ‘behind something.’” Pet. Reply 11 (citing Inst. Dec. 15–16). Specifically, Petitioner argues that “when identifying support in the specification for the term ‘background,’ the applicant cited the disclosure of ‘a “hidden’ area” within a game’ where ‘hidden features may be placed . . . so that the user has something new to look at or trigger (sometimes unexpectedly).” *Id.* (citing Ex. 1002, 83–84). “But,” according to

¹² The Examiner and the parties emphasize the names of prior art references. Here and elsewhere the emphasis has been omitted.

Petitioner, “whether an object may be triggered ‘unexpectedly’ has no connection to whether that object is shown in the foreground or background of a scene.” *Id.* (citing Ex. 1020 ¶ 26).

We are not persuaded by Petitioner’s argument. The applicant’s argument that Petitioner cites relates to the term “hot spot information,” not a background object. *See* Ex. 1002, 83–84 (“For example, the ‘*hot spot information*’ may designate a ‘hidden area’ within a game[], such as a background area, for activating a hot spot. In an exemplary embodiment, ‘new interactive items and/or hidden features may be placed within particular scene in the game so that the user has something new to look at or trigger (something unexpectedly).’” (emphasis added)). Because the applicant’s argument focused on hot spot information and not a non-promotional background object, that section of the prosecution history is inapposite. Moreover, the construction of “background object” does not incorporate any requirement that it must be unexpected.

Petitioner further argues that, based on the prosecution history, the proper construction of “background” is “not needed or required in order to play the game.” Pet. Reply 12–13. Specifically, Petitioner argues that “the applicant distinguished Chu’s objects not based on their visual location within the scene, but based on their in-game functionality—namely, that they are ‘primary objects to be manipulated during gameplay’ and ‘are not themselves needed or required in order to play the game.’” *Id.* at 12 (citing Ex. 1002, 85–86).

Petitioner also argues that although the applicant argued that “Chu’s ‘pit stop’ and ‘treasure chest’ are not ‘background’ objects because ‘they are featured in the forefront of game play as primary objects to be manipulated

or used during game play” (Pet. Reply 11 (citing Ex. 1002, 85)), “Chu never describes *where* in the scene its pit stop and treasure chest are located—much less indicates they are in the ‘foreground’ of a scene” (*Id.* (citing Ex. 1021 ¶¶ 63–65)). Petitioner further argues that there are other elements that are in the background. *Id.* (citing Ex. 1021 ¶¶ 38–39, Fig. 2; Ex. 1020 ¶ 27).

These arguments do not persuade us to stray from the ordinary and customary meaning of “background.” As discussed above, in order for an applicant to act as a lexicographer, the applicant “must ‘clearly set forth a definition of the disputed claim term’ other than its plain and ordinary meaning” and “‘clearly express an intent’ to redefine the term.” *Thorner*, 669 F.3d at 1365. In this proceeding, the applicant made clear and distinct statements distinguishing prior art based on the location of objects in the “forefront of game play.” Ex. 1002, 85. The applicant also defined the background as being “outside of the primary focus of game play.” *Id.* Those statements do not evidence a clear intent to provide a definition that is different from the ordinary and customary meaning.

Indeed, the very structure of a sentence Petitioner relies on rebuts its argument. The prosecution history states the following:

First, Chu characterizes its objects as “game component[s],” which appear to be featured objects that a user manipulates in order to play the game, while the recited “non-promotional background objects” are not game components, but instead they exist in the *background, outside of the primary focus of game play and as unexpectedly interactive components*, and are not themselves needed or required in order to play the game. Ex. 1002, 85 (emphasis added). Following the word “background” is a comma and then the appositive phrase “outside of the primary focus of game

play and as unexpectedly interactive components.” *Id.* Such appositive phrases provide additional information, such as a definition. Chicago Manual of Style § 5.23, <https://www.chicagomanualofstyle.org/book/ed17/part2/ch05/psec023.html> (last accessed September 11, 2025) (“An appositive is a noun element that immediately follows another noun element in order to define or further identify it.”).

However, Petitioner ignores that appositive phrase and, instead, focuses on the next phrase—“and are not themselves needed or required in order to play the game.” Although that phrase may describe Chu’s objects, there is nothing in that sentence structure that makes it clear that the phrase is intended to be definitional.

(2) *The Ordinary and Customary Meaning of “Background” Is Not Subjective*

Petitioner argues that to the extent “background object” is given patentable weight, “the term should be limited to objective **functional** characteristics described by the applicant during prosecution, not subjective characteristics relating to appearance.” Pet. Reply 6–7. Specifically, Petitioner argues that “a claim term cannot be construed in a manner that depends on ‘the subjective views of the user.’” *Id.* at 7 (quoting Remand Decision 12). According to Petitioner, “if the term were ‘completely dependent on a person’s subjective opinion’ the claims would be indefinite.” *Id.* at 7 n.3 (quoting *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1350–51 (Fed. Cir. 2005)) (citing *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014)). Petitioner argues that our construction, which uses the ordinary and customary definition, would be indefinite “because players may be able to move about the game world,

whether an object is in the foreground or background will often depend on the player's current position in the game, not any objective property of the object.” *Id.* at 8 (citing Ex. 1020 ¶ 20); *see also id.* at 8–10 (arguing how the distinction between foreground and background is subjective).

We are not persuaded by Petitioner's argument. We have reviewed *Datamize* and *Interval* and do not find them applicable to the facts of this proceeding. In *Datamize*, the court held that “[t]he scope of claim language cannot depend solely on the unrestrained, subjective opinion of a particular individual purportedly practicing the invention.” *Datamize*, 417 F.3d at 1350 (citing *In re Musgrave*, 431 F.2d 882, 893 (CCPA 1970)). However, unlike the purely subjective construction of “aesthetically pleasing” in *Datamize*, the construction in this proceeding is not purely subjective; instead, our construction depends on objective criteria such as whether an object is in the foreground.

Similarly inapplicable is *Interval Licensing*, in which the claim recited displaying content “in an unobtrusive manner that does not distract a user of [a] display device.” 766 F.3d at 1368 (emphasis omitted). In that claim, the limitation is solely subjective as it depends on whether a user is distracted. *Id.* at 1374 (holding that because “[t]he specification offers no indication, thus leaving the skilled artisan to consult the ‘unpredictable vagaries of any one person's opinion,’” the claim was indefinite (quoting *Datamize*, 417 F.3d at 1350)). But in this proceeding, the claim construction does not depend on what a user thinks. Instead, as discussed above, the claim construction is based on an objective standard of examining where the object is located.

Moreover, even though there is some degree of subjectivity in the ordinary and customary meaning of background, that is not enough to make the claim indefinite. The Federal Circuit has consistently held that claims involving subjective terms such as those of degree are not inherently indefinite. *See Sonix Tech. Co. v. Publications Int’l, Ltd.*, 844 F.3d 1370, 1377 (Fed. Cir. 2017). Indeed, “[c]laim language employing terms of degree has long been found definite where it provided enough certainty to one of skill in the art when read in the context of the invention.” *Interval Licensing*, 766 F.3d at 1370 (citing *Eibel Process Co. v. Minn. & Ont. Paper Co.*, 261 U.S. 45, 65–66 (1923)). For example, claim terms denoting a location, such as near, are not indefinite. *See Power-One, Inc. v. Artesyn Techs., Inc.*, 599 F.3d 1343, 1348 (Fed. Cir. 2010); *Accentra, Inc. v. Staples, Inc.*, 500 F. App’x 922, 930 (Fed. Cir. 2013); *Young v. Lumenis, Inc.*, 492 F.3d 1336, 1345–47 (Fed. Cir. 2007). Because both near and background denote a relative location, we see no difference in subjectivity between near (which is not indefinite) and background.

Petitioner further argues that “[t]he examples in the ’089 patent further demonstrate the lack of an objective way to determine whether objects are in the ‘foreground’ or ‘background’ of a scene based on their appearance.” Pet. Reply 9. According to Petitioner, although the applicant indicated that the chalk board in Figure 2A and 2B of the application was in the background (Ex. 1022, 122), “[t]here is no objective basis to characterize the blackboard as part of the ‘background’ based on its appearance” (*id.* at 9–10).

We agree with Petitioner that it is difficult—if not impossible—to draw a background/foreground distinction between the chalk board and the

dart board. Both the chalk board and the dart board are in the same plane of the backwall. It would appear that they are either both in the foreground or both in the background. But that does not mean, as Petitioner argues, that the phrase lacks an objective definition. To the extent Petitioner suggests a written description issue, that is not an issue that we can address. *See* 35 U.S.C. § 311(b).

(3) Meaning of Non-promotional Background Object

For the reasons sets forth above, the phrase “non-promotional background object” has patentable weight and means an object that is not in the foreground and does not display a promotional message unless a hot spot is activated.

2. All Other Claim Terms

For the purposes of this Decision, we need not expressly construe any other claim terms. *See Nidec*, 868 F.3d at 1017; *Vivid*, 200 F.3d at 803.

D. Obviousness Based on Ho, Jiau, and Choi

1. Overview of Ho

Ho is titled “An Incentive-Based Video Gaming System” and “relates to a video game . . . incorporating [an] interactive information element into a video game.” Ex. 1004, code (54), 1:5–7.

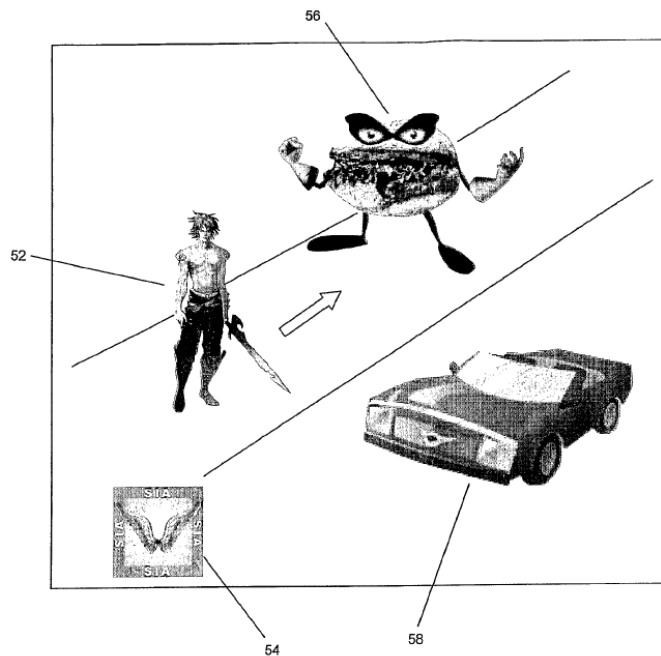
Ho describes prior systems as offering “in-game advertising to ‘capture’ eyeballs”; however, the advertisements were “restricted to . . . non-interactive in-game elements” and, thus, provided “no impetus for the player to pay more attention,” e.g., “to the static advertisements.” Ex. 1004, 1:19–31. Ho generalizes the prior technology as having “no methods available to incorporate interactive and update-able advertisements into existing video games.” *Id.* at 1:35–37.

Ho “provide[s] a method of playing a video game with at least one interactive information element incorporated within the game,” e.g., “an icon in the game, a character in the game[,] or an item in the game.” Ex. 1004, 2:1–12. “[T]he player ha[s] an option to engage the at least one interactive information element.” *Id.* at 2:2–5. Preferably, “gameplay is not disrupted when the . . . element is engaged[,] the . . . element is not mandatory for continuation of gameplay[,] the . . . element may be either advertisements or public announcement services,” and “the . . . element is able to be updated.” *Id.* at 2:1–18.

“[I]ncorporating . . . [the] element into a video game[] include[s]: adding an engageable module into the video game; updating the engageable module with the . . . element; and locating the . . . element at a juncture in the video game.” Ex. 1004, 2:35–38. “The juncture . . . may be either a specific event . . . or a specific location in the game.” *Id.* at 3:1–2. Preferably, “the engageable module may be updated either locally or from a remote source via a network.” *Id.* at 2:40–3:1.

“Engagement of the . . . element may activate an action,” e.g., “an on-screen presentation, an electronic token generation.” Ex. 1004, 3:10–12. “The on-screen presentation may be either within the course of gameplay or in a sub-screen in the game.” *Id.* at 3:12–13. “Electronic tokens may also be stored either locally or on a network.” *Id.* at 3:13–14.

Ho’s Figure 3, reproduced below, illustrates examples of interactive information elements being incorporated in a MMORPG (massively multiplayer online role playing game). Ex. 1004, 5:1–2.



As shown in Figure 3, at a particular juncture in gameplay, a character 52 in the MMORPG controlled by the player encounters some interactive information elements such as (i) a “wings” button 54 to enable character 52 to fly (an example of an icon in the game), (ii) a hamburger monster 56 (an example of a character in the game), and (iii) a car 58 (an example of an item in the game). *Id.* at 5:1–25. Each interactive information element 54, 56, and 58 may be linked/related to a particular advertiser. *Id.* Interactive information elements 54, 56, and 58 may be engaged in different ways, with the way of engaging interactive information elements 54, 56, 58 depending on the type of element being engaged. *Id.* For example, hamburger monster 56 may be engaged only when character 52 fights and successfully slays the hamburger monster, car 58 may be engaged when character 52 enters the car, and “wings” button 54 may be engaged (for example when character 52 wishes to fly) by clicking on icon 54 using a pointer, or by using an enclosure moving between different icons to highlight icon 54 to engage the

icon. *Id.* The player may be informed of a reward prior to engaging the interactive information element(s). *Id.*

If the player chooses to engage any of interactive information elements 54, 56, and 58 in one of a number of ways, an action may be activated. *Id.* at 5:27–38. For example, highlighting icon 54 may activate an on-screen presentation that may be within the course of gameplay or in a sub-screen in the game. *Id.* The on-screen presentation may be, for example, an airliner with a particular airline’s (an advertiser) paint scheme flying across the screen (overlaid on the game environment) trailing a catchphrase of the airline. *Id.* Making character 52 enter car 58 may activate the generation of a roar of an engine starting and revving recorded from an engine of an actual car depicted by car 58. *Id.* Making character 52 slay hamburger monster 56 may generate a sub-screen showing an advertisement of a chain of fast food restaurants, with the sub-screen overlaid on the game environment so as not to be disruptive to gameplay. *Id.*

2. *Overview of Jiau*

Jiau is titled “Method and Apparatus for Providing Hotspots in a Shared Virtual World” and “relates . . . to a method and apparatus that allow users to access and explore a multi-owner, three-dimensional virtual world in a network environment.” Ex. 1005, code (54), 1:7–9.

Jiau describes prior “multi-player games [whereby] players can [see] representations of each other in the three-dimensional world as they move within some predetermined distance of each other.” Ex. 1005, 1:19–21. Jiau generalizes “[s]uch three-dimensional games[as] involv[ing] a predetermined, predefined virtual world that does not change . . . [—]defined

by the game designer and the players move within the predefined spaces.”
Id. at 1:22–24.

Jiau’s invention provides “[a] virtual world . . . divided into a plurality of ‘lots,’ similar to ‘lots’ of real estate in the real world” and whereby “[u]sers can reserve . . . these lots to design as they please.” Ex. 1005, 1:32–2:2. “[U]sers access the virtual world via client data processing systems using a networking model such as the World Wide Web.”

Id. at 2:4–5. “The server assigns each newly registered lot to a location in the virtual world[,] stores the lots in a memory or database,” and thus provides “each lot . . . an ownership attribute.” *Id.* at 2:7–9. “Users can alter and modify their lots, even while others are visiting them in the virtual world[,] the lots . . . can be constantly updated and changed.” *Id.* at 2:29–31.

“Users can include objects in their lots that allow a virtual person walking in their lots to move to another lot that is not physically contiguous to their lot,” e.g., the virtual person “walks into it” for “teleporting.” Ex. 1005, 2:13–16. “Users can also define objects in their lots that have certain behaviors, such as playing an ad or animation when selected.” *Id.* at 2:19–20. “Users can also associate objects with the URLs of pages on the world wide web, so that a web page is displayed when the object is approached or activated.” *Id.* at 2:20–21.

“If the user . . . turn[s and] . . . a new lot is viewed, the client system determines whether it needs to load new lots or objects.” Ex. 1005, 11:7–9. “If the user walks into an object or selects an object though a mouse click or similar means . . . , the client system takes various actions . . . depending on how the object is defined.” *Id.* at 11:16–18. “This activity is part of the attributes of object 320.” *Id.* at 15:7 (citing Fig. 13(b) for such attributes of

an attribute). One attribute is that, per a “hotspace link defined around object 320,” the “object 320 has a pop-up advertisement 1182 that is activated when the user’s location becomes within a predetermined virtual distance in the virtual world.” *Id.* at 15:4–8.

“Hot spaces are defined as two or three-dimensioned areas or the virtual world (which may or may not have an object located therein) that have an associated link.” Ex. 1005, 15:32–16:2; *see also id.* at 17:1 (“[A] ‘hotspace’ is a predetermined space surrounding an object.”). “For example, when a user walks within ten virtual feet of a hotspot, a pop-up advertisement may appear.” *Id.* at 17:1–2.

“Hot spots are defined as areas of an object (or a whole object) that have an associated link.” Ex. 1005, 15:31–32. “For example, when the user touches or selects an object, a pop-up advertisement may appear.” *Id.* at 16:31–32.

Figure 11(d) of Jiau, reproduced below, illustrates an example of a three-dimensional view of a virtual world having advertisements activated by user actions, and Figure 11(e) of Jiau, reproduced below, illustrates an example of an object having a hotspot allowing a user to enter an interior of the object. Ex. 1005, 5:28–31.

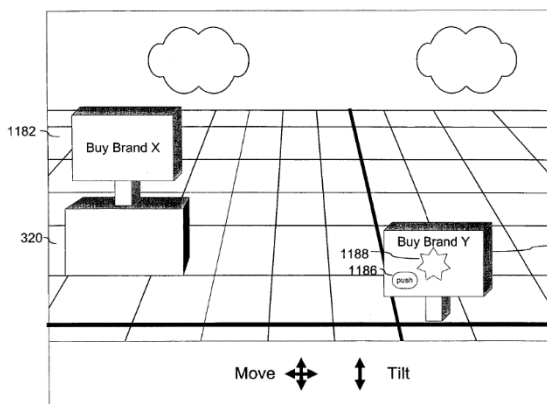


Fig. 11(d)

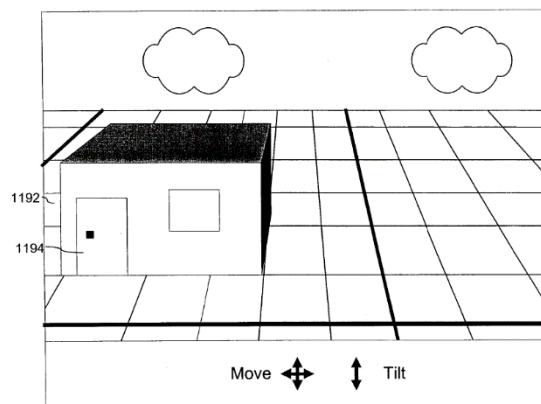


Fig. 11(e)

In Figure 11(d), an object 320 has a pop-up advertisement 1182 that is activated when the user's location is within a predetermined virtual distance in the virtual world. *Id.* at 15:3–17. When the user approaches object 320, advertisement 1282 pops up. *Id.* This activity is part of the attributes of object 320—there is a hotspace link defined around object 320. *Id.* Figure 11(d) further shows a static object 1184 that is always visible when it comes into view in the three-dimensional representation of the virtual world. *Id.* Object 1184 is a sign containing an advertisement, and there is a hotspot link 1186 defined on object 1184. *Id.* When the user clicks or otherwise selects hotspot link 1186 (e.g., by approaching it), an animation 1188 (represented in the figure by a star) spins, changes color, or animates. *Id.* Hotspot 1186 and the activity associated with object 1184 (as well as the appearance of object, including the advertising text) are defined as attributes of object 1184. *Id.*

Figure 11(e) shows an object 1192 having a hotspot link 1194 (e.g., a door-shape) allowing the user to enter an interior of the object. Ex. 1005, 15:18–16:2. The user enters the interior of the object when the user activates hotspot 1192 (i.e., when the user collides with, or passes sufficiently close to, the hotspot). *Id.* When a user activates hotspot 1194, the user passes to the interior of object 1192, and the client computer renders an interior view of the object. *Id.* Other objects that appear similar to object 1192 may have hotspots that are effectively teleportation links, so that the user steps through a door, but ends up in another location in the virtual world (or in a sub-world, or a related virtual world). *Id.* Hot spots are areas of an

object (or a whole object) that have an associated link, and hotspaces are two or three-dimensioned areas that have an associated link. *Id.*

3. *Overview of Choi*

Choi is titled “System and Methods for Managing Content in Pre-Existing Mobile Applications” and “relates to . . . modifying existing mobile applications to permit either of both insertion of content adapted for operation on the target device[] and retrieval of appropriate user and usage information from the device.” Ex. 1008, code (54), ¶ 2.

Choi describes prior “useful functionality that could be added to a mobile application after it has been developed and sent to an application distributor.” Ex. 1008 ¶ 4. “A primary example of additional functionality is receipt and display of advertising content.” *Id.* Choi identifies “a long-standing need . . . for managing distribution of data (such as advertising content) and for retrieval of appropriate data (such as advertising impression counts).” *Id.* ¶ 6.

Choi’s invention includes “an instrumented application communicating directly with an ad server.” *Id.* ¶ 78. “[T]he instrumented application typically communicates periodically with the ad server . . . ; for example, the application can contact the ad server once it has shown its current ad content some fixed number of times[] or . . . immediately in response to user interaction with ad content.” *Id.* “This communication can include the application sending its identification to the ad server along with any usage statistics.” *Id.* “The communication can also include the application sending a request for new ad content to the ad server,” including “information related to the current mobile device . . . location.” *Id.* “The

application renders the ad content in the instrumented inventory locations according to any constraints indicated by the ad content meta-data.” *Id.*

“[An] Ad Manager module[,] on top of the persistent storage mechanisms available on the mobile device, . . . can use GPS location information to request location-specific advertising content from the network server.” *Id.* ¶ 43. “Inventory modules provide logic for presenting content at specific locations within an application.” *Id.* “Action modules . . . provide logic for executing some set of actions in response to user input related to an inventory placement, [e.g.,] Click-to-Web and Click-to-Call.” *Id.*

4. Analysis

Limitations 1(d)(i) and 6(e)(i) recite that the claimed “hot spot information” comprises “a location in-game associated with activating the hot spot, wherein the location in-game is represented by *a non-promotional background object*.” Ex. 1001, 14:27–29, 14:62–64 (emphasis added). Petitioner argues that “[t]he combined teachings of Ho and Jiau render limitation 1(d)(i) obvious.” Pet. 29 (citing Ex. 1003 ¶¶ 119–124); *see also* Pet. Reply. 13–17 (citing Ex. 1020 ¶¶ 31–33). Petitioner relies on the same evidence and arguments for limitation 6(e)(i). Pet. 29. For the reasons set forth below, Petitioner has not shown by a preponderance of the evidence that either Ho or Jiau teaches limitations 1(d)(i) or 6(e)(i).¹³

¹³ Because the parties’ dispute focuses on whether the objects are background objects, we do not address whether they are also non-promotional.

a) *Arguments Based on Ho*

Petitioner argues that the various “interactive information elements”—“a ‘wings’ button 54 to enable the character 52 to fly (an example of an icon in the game), a hamburger monster 56 (an example of a character in the game) and a car 58 (an example of an item in the game)”—are background objects because they are optional. Pet. 31–32 (citing Ex. 1004, 4:26–28, 5:1–5, 5:30–33, 5:36–38); *see also* Pet. Reply 13.

We are not persuaded by that argument. Petitioner relies on a claim construction that we rejected. Because Petitioner’s argument is not commensurate with the scope of the claims, it is unpersuasive. *See In re Self*, 671 F.2d 1344, 1348 (CCPA 1982).

Petitioner also argues that Ho teaches that activating the interactive information elements “does not disrupt gameplay” and is therefore “outside the primary focus of game play.” Pet. 31–32 (quoting 5:36–38). We do not see how the fact that activating an element without disrupting game play means the element is in the background. Because the argument is not commensurate with the scope of the claim, it is not persuasive. *See Self*, 671 F.2d at 1348.

In the alternative, Petitioner argues that Ho teaches “background objects” as defined by our claim construction. Pet. Reply 13–14, 16–17. Specifically, Petitioner argues that Ho describes “hot spots associated with objects that ‘appear[] to be in the distance’ of a scene.” *Id.* at 13 (quoting Inst. Dec. 15). According to Petitioner, an example is the hamburger monster in Ho Figure 3, which “appears in the background of the scene relative to other objects in the foreground (such as wings 54, car 58, and

player character 52).” *Id.* at 13–14; *see also id.* at 16 (arguing that not every object in Ho Figure 3 is in the foreground).

Petitioner also argues that Ho Figure 3 depicts an “arrow indicating that the player character 52 must approach the hamburger monster as the character travels down the pathway indicated by the parallel lines.” Pet. Reply 14. According to Petitioner, a person having ordinary skill in the art “would understand that, since the player character is always on screen, the hamburger monster began as a background object as the player travels down the pathway.” *Id.* (citing Ex. 1020 ¶ 32).

Petitioner also argues that it is of no moment that the user is encouraged to engage and interact with Ho’s interactive information element. Pet. Reply 16 (responding to argument in the Patent Owner’s Response). According to Petitioner, there is nothing in the construction of “background” that turns on whether a user is encouraged to interact with an object. *Id.* Furthermore, Petitioner argues, the Board expressly rejected such a construction based on the prosecution history in the Institution Decision. *Id.* at 16–17 (citing Inst. Dec. 14–15).

We are not persuaded by Petitioner’s arguments that any of the interactive information elements are in the background. Ho’s Figure 3 is reproduced below:

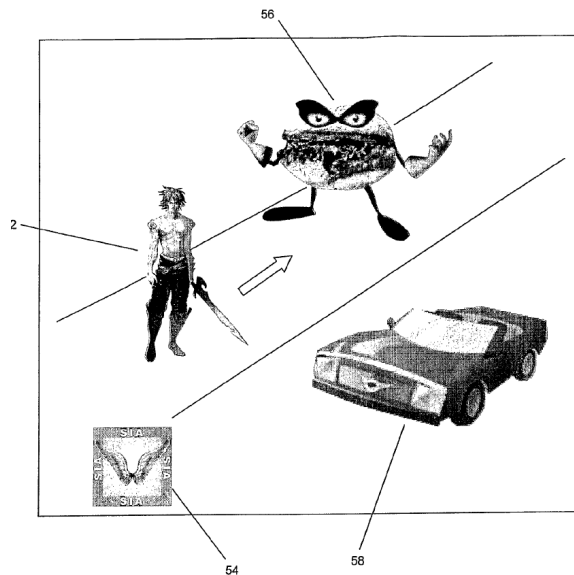


Figure 3 above is an example of the embodiment of Ho showing a wings button, a car, and a hamburger monster in the foreground. Ex. 1004, 5:1–5, Fig. 3. Ho describes how the various interactive information elements are used for game play. *See id.* at 5:11–38. For example, hamburger monster 56 may be engaged when character 52 fights and successfully slays the hamburger monster, car 58 may be engaged when character 52 enters the car, and “wings” button 54 may be engaged (for example when character 52 wishes to fly) by clicking on icon 54 using a pointer, or by using an enclosure moving between different icons to highlight icon 54 to engage the icon. *Id.* When those interactions happen, the interactive information element will be in the foreground. *Id.*; Ex. 2005 ¶¶ 60–64. That is, various interactive information elements are not “part of a pictorial representation that appears to be in the distance and that provides relief for the principal objects in the foreground” (Ex. 2008) or “the scenery or ground behind something” (Ex. 2009).

Petitioner does not dispute our findings with respect to wings 54 and car 58. Pet. Reply 13. That is, Petitioner states those are in the foreground.

Id. (“For example, Figure 3 of Ho shows an interactive information element in the form of a ‘hamburger monster’ (56) that appears in the background of the scene relative to other objects in the foreground (such as wings 54, car 58, and player character 52).” (emphasis added)).

As for the remaining interactive information element, hamburger monster 56, even if it is in the background in Ho Figure 3 (which it does not appear to be), that is not enough to show that it teaches limitations 1(d)(i). The claim limitation specifically requires that the “location” which is represented by the “non-promotional background object” is “associated with activating the hot spot.” Ex. 1001, 14:25–29. That is, the object must be a non-promotional background object when the hot spot is activated. *Id.* When the user moves in the direction of the arrow in order to interact with hamburger monster 56, hamburger monster 56 will no longer be in the background. Tr. 22:22–23:10. Thus, at the time of interaction—the “location in-game associated with activating the hot spot”—the hamburger monster will not be “part of a pictorial representation that appears to be in the distance and that provides relief for the principal objects in the foreground” (Ex. 2008) or “the scenery or ground behind something” (Ex. 2009). That is, it will no longer be in the background.

In making these determinations, we do not find the testimony of Dr. Zagal on this subject sufficiently supported by the evidence and give it no weight. *See* 37 C.F.R. §42.65(a) (“Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight.”). First, although Dr. Zagal testifies that the “hamburger monster is in the background of the scene because it is at a

distance from the player” (Ex. 1020 ¶ 31), he does not provide any reasoning for that opinion.

Second, as discussed above, Dr. Zagal considers only the static image shown in Ho’s Figure 3. *See* Ex. 1020 ¶¶ 31–32. Dr. Zagal testimony is silent as to the location of hamburger monster 56 at the time the hot spot would be activated, as required by the claim limitation. *See id.* Although Dr. Zagal acknowledges that hamburger monster 56 “would only appear to move closer to the player as the player character travels down the pathway toward the hamburger monster” (*id.* ¶ 32), Dr. Zagal is silent whether hamburger monster 56 is still in the background or the foreground at that critical time. *Id.*

b) Arguments Based on Jiau

Petitioner argues that “Jiau’s hotspots and hotspaces also disclose limitation 1(d)(i).” Pet. 32 (citing Ex. 1003 ¶ 124). Specifically, Petitioner focuses on Jiau’s hot spaces and argues that “a ‘hotpace’ may cause a pop-up advertisement to unexpectedly appear when a user passes through a background location within a predetermined distance of an associated object.” *Id.* Petitioner argues that “[i]t would have been obvious to a [person having ordinary skill in the art] based on these teachings that a hotspace may define a region that contains one of several types of background objects disclosed by Jiau, such as a ‘solid object’ or an ‘object with pass-through.’” *Id.* (citing Ex. 1003 ¶ 124; Ex. 1005, 11:18–20, 11:29–31).¹⁴

¹⁴ In its Reply, Petitioner presents additional arguments related to the relative position of object 320 and static object 1184. Pet. Reply 14–15. At the oral
continued on the next page

We are not sufficiently persuaded by Petitioner’s argument. First, Petitioner does not sufficiently explain how a “solid object” or an “object with a pass-through” is a background object. *See* Pet. 32; Ex. 1003 ¶ 124. A “solid object” is something that “will cause the user to stop” and an “object with pass-through” is something like a tunnel that “will cause the user to pass through to the other side.” Ex. 1005, 11:19–31. Neither of those appears to be a background object. Although Dr. Zagal states that they are background objects (Ex. 1003 ¶ 124), that testimony is not sufficiently persuasive. That is, there is no corroboration or sufficiently persuasive evidence showing why the space surrounding an object is not in the foreground.

Second, limitation 1(d)(i) makes it clear that the “location in-game is represented by a non-promotional background *object*.” Ex. 1001, 14:27–29 (emphasis added). But, in Jiau, a hotspace is not an object. Instead, “a ‘hotspace’ is a predetermined space surrounding an object.” Ex. 1005, 16:32–17:1. Jiau further describes how you interact with a hotspace by moving within a certain distance from the hotspace, not by interacting with an object in that space. *Id.* at 17:1–4.

c) Conclusion

Accordingly, Petitioner has not shown by a preponderance of that claims 1 and 6 are unpatentable as obvious over the combination of Ho, Jiau, and Choi.

Because claims 2, 3, 7, and 8 depend from either claim 1 or 6 (Ex. 1001, 14:35–41, 15:1–10), Petitioner has not shown by a preponderance

hearing, counsel stated that Petitioner is no longer relying on that argument. Tr. 20:9-21:10.

of that claims 2, 3, 7, and 8 are unpatentable as obvious over the combination of Ho, Jiau, and Choi. *See In re Fritch*, 972 F.2d 1260, 1266 (Fed. Cir. 1992) (“[D]ependent claims are nonobvious if the independent claims from which they depend are nonobvious.”). Petitioner’s argument and evidence for claims 2, 3, 7, and 8 (Pet. 34–36, 39–41) do not cure the deficiency explained above for claims 1 and 6.

E. *Obviousness Based on Ho, Jiau, Choi, and Ellis*

1. *Summary of Ellis*

Ellis is titled “Method and System for Dynamically Incorporating Advertising Content into Multimedia Environments” and is directed to “a computer system for dynamically incorporating content such as advertisements into multimedia systems.” Ex. 1007, code (54), 1:9–12.

Ellis describes a dynamic advertisement system that provides “a minimally intrusive mechanism” for “an advertiser to dynamically incorporate content, such as advertisements, into a video game.” Ex. 1007, 2:31–36. Ellis’s system uses a “dynamic inserter” to deliver ads to a “game client system . . . based upon a set of criteria.” *Id.* at 2:42–46. Ads are provided by an ad server, which “selects a particular advertisement from its collection according to a set of criteria” in response to a request from a game client. *Id.* at 4:36–46. The ad server logs information about ad delivery, which can be used to “bill[] the advertiser . . . each time an ad is inserted into a video game.” *Id.* at 19:45–60.

2. *Claims 4, 5, 9, and 10*

Claims 4 and 5 depend from claim 1 and claims 9 and 10 depend from claim 6. Ex. 1001, 14:42–47, 15:11–15. Because of the dependency, Petitioner has not shown by a preponderance of that claims 4, 5, 9, and 10

are unpatentable as obvious over the combination of Ho, Jiau, Choi, and Ellis. *See Fritch*, 972 F.2d at 1266. Petitioner’s argument and evidence for claims 4, 5, 9, and 10 (Pet. 42–48) do not cure the deficiency explained above for claims 1 and 6.

F. *Obviousness Based on Sturman and Ho*

1. *Summary of Sturman*

Sturman is titled “Matching and Scoring of Advertisements for Targeted Delivery into Multiple Video Games, Such as Single and Multiplayer Games” and is directed to “[a]n advertisement delivery scheme and associated computerized facility [to] allow advertisers to deliver their campaign messages to specific audiences they wish to target across one or multiple game titles played across multiple platforms . . . without being limited to delivering their campaign to only a single specific game title.” Ex. 1006 code (54), ¶ 18. Sturman describes “[a]n advertisement delivery scheme” that “provide[s] targeted advertisements for multiple video games without advertisers having to specify specific game titles in which they would like their advertisements placed.” *Id.* at code (57).

Sturman uses an advertisement server which “deliver[s] advertising to one or more advertising recipient systems.” Ex. 1006 ¶ 41. This is done in response to a client “request[ing] advertisements for delivery to one or more available ad units within the client software application.” *Id.* ¶ 44. The ad units are spaces that are used to display advertisements:

In accordance with some embodiments, the advertisement delivery scheme and associated facility present advertisements as texture maps or other graphical displays (e.g., animations, video, etc.) on pre-designated geometry within the game, such as billboards, storefront signs, panel trucks, Jumbotron screens in a sports stadium, posters on walls, T-shirts on a game character,

items used by game characters (e.g., a brand name soft drink or energy bar) and so on. Each of these spaces may be termed an “available ad unit” or “inventory element.”

Id. ¶ 19.

2. *Claims 1*

a) *“Hot Spot” and “Hot Spot Information”*¹⁵

The preamble of claim 1 (limitation 1(a)) and limitations 1(b), 1(d), 1(d)(1), 1(d)(2), and 1(e) recite “hot spot” and/or “hot spot information.” Ex. 1001, 14:16–34. Petitioner argues that Ho teaches the recited “hot spot” and “hot spot information.” Pet. 53–55, 55–59. For the reasons set forth below, Petitioner shows that Ho teaches those elements.

Ho incorporates “interactive information elements” into a video game. *See, e.g.*, Ex. 1004, code (57), 5:1–38. Examples of the interactive information elements are “a ‘wings’ button 54 to enable the character 52 to fly (an example of an icon in the game), a hamburger monster 56 (an example of a character in the game) and a car 58 (an example of an item in the game).” *Id.* at 5:1–5. “If the player chooses to engage any of the interactive information elements 54, 56, 58 in one of a number of ways (28), an action may be activated (30).” *Id.* at 5:27–28. The engagement will depend on the type of interactive information element and can include fighting the hamburger monster, clicking the wings icon, or entering the car. *Id.* at 5:7–14. Such interactions result in the presentation of an advertisement. *Id.* at 5:28–36. In other words, Ho’s interactive information elements are in-game features that will display content (an advertisement)

¹⁵ We focus on the disputed claim limitations before turning to the undisputed limitations.

when they are triggered by an activation element. *See* Ex. 1003 ¶ 109. That is consistent with the '089 patent's description of a "hot spot." *See* Ex. 1001, 2:21–30 ("A hot spot is an in-game feature that includes an activation element and a content element that is triggered by the activation element.").

Ho further teaches that information about the interactive information element is downloaded from a server. Ex. 1004, 10:2–17; *see also id.* at 6:28–31 ("For video games that are played in an online mode, the interactive information elements may be updated by automatically downloading and replacing relevant sub-modules controlling the interactive information elements in the video game."); Figs. 4, 5. Because Petitioner sufficiently shows that interactive information elements are hot spots, the information about the interactive information elements is hot spot information.

Accordingly, Petitioner sufficiently shows that Ho teaches a "hot spot" and "hot spot information" as recited in claim 1.¹⁶

Patent Owner argues that Sturman does not teach a "hot spot" or "hot spot information" as recited in claim 1. PO Resp. 34–37. However, because we find that Ho, not Sturman, teaches those limitations, Patent Owner's argument is inapposite. *Game & Tech Co. v. Wargaming Grp. Ltd.*, 942 F.3d 1343, 1352 (Fed. Cir. 2019) ("The question in an obviousness inquiry is whether it would have been obvious to a person of ordinary skill in the art to combine the relevant disclosures of the two references, not whether each individual reference discloses all of the necessary elements.").

¹⁶ Because we find that Ho teaches the limitations, Petitioner's alternative argument that Sturman teaches those limitations (*see* Pet. 53, 54) is moot.

*b) Reason to Combine Sturman's Ad Units with Ho's
Interactive Information Elements*

Petitioner argues that a person having ordinary skill in the art “would have been motivated to apply Ho’s teachings to Sturman’s advertisement delivery system, and would have had a reasonable expectation of success in combining the references.” Pet. 50 (citing Ex. 1003 ¶¶ 156–160); *see also id.* at 50–53 (providing details of argument); Pet. Reply 37–44 (same). For the reasons set forth below, Petitioner persuasively shows that a person having ordinary skill in the art would have modified Sturman’s ad units with features from Ho’s interactive information elements with a reasonable expectation of success.

Sturman teaches an “advertisement delivery scheme” in which “an ‘available ad unit’ or ‘inventory element’” can be delivered to various locations within “the game, such as billboards, storefront signs, panel trucks, Jumbotron screens in a sports stadium, posters on walls, T-shirts on a game character, items used by a game character (e.g., a brand name soft drink or energy bar) and so on.” Ex. 1006, code (57), ¶ 19; *see also* Ex. 1003 ¶ 174.

Sturman further teaches that “[s]ome available ad units may be interactive within the game context.” Ex. 1006 ¶ 20; *see also* Ex. 1003 ¶ 175. A person having ordinary skill in the art “would understand that an interactive ad includes an element that is activated through user interaction, and causes something to happen in response to the interaction, like the ’089 Patent’s hot spots.” Ex. 1003 ¶ 175. Additionally, as discussed in the previous section, Ho teaches interactive information elements comprising a hot spot, such as “a character in the game or an item in the game,” that may be presented at “a specific location in the game.” Ex. 1004, 2:11–17.

A person having ordinary skill in the art would have modified Sturman's advertisement units with the features of Ho's interactive information elements thus allowing Sturman's advertisement units to have in-game hot spots. *See* Ex. 1003 ¶¶ 156–160, 178, 180. Specifically, because both Sturman and Ho are directed to in-game advertising, a person having ordinary skill in the art would have looked at both Sturman and Ho when determining how to implement in-game advertising. *See* Ex. 1003 ¶¶ 76, 158. Additionally, “because Ho teaches specific improvements to the presentation of ads that would improve the effectiveness of the ads used within Sturman's system,” a person having ordinary skill in the art would have incorporated “Ho's teachings regarding interactive information elements into Sturman's advertisement delivery system.” Ex. 1003 ¶ 159. Such a combination would replace static ads with interactive ads that are designed to be triggered by hot spots and would be “more engaging to players.” *Id.*; *see also id.* ¶¶ 178, 180.

Furthermore, a person having ordinary skill in the art would have had a reasonable expectation of success when combining Ho and Sturman. *See* Ex. 1003 ¶ 160. Such a combination would have been straightforward to implement using basic software logic for responding to user input within the game. *Id.*

Patent Owner argues that just having references “in the same general area is not sufficient to establish a motivation to combine two references.” PO Resp. 38. According to Patent Owner, “merely asserting that references are drawn from the same field of art is ‘simply too conclusory’ to show that a [person having ordinary skill in the art] would have combined the references in the way of the claimed invention.” PO Resp. 38–39 (citing

*Securus Techs., Inc. v. Glob. Tel*Link Corp.*, 701 F. App'x 971, 976 (Fed. Cir. 2017); *Microsoft Corp. v. Enfish, LLC*, 662 F. App'x 981, 990 (Fed. Cir. 2016)).

We do not agree with Patent Owner's argument because Petitioner's argument is not based merely on similarity of references but, rather, on specific improvements taught by Ho. *See* Pet. 51–52. In *KSR*, the Supreme Court held that “if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.” 550 U.S. at 417. There is no dispute that the combination is within the ability of a person having ordinary skill in the art. *See* PO Resp. 37–44.

Moreover, our finding is not based solely on the references being in the same field. Instead, our determination is based on arguments presented in the Petition (Pet. 51–52) and the testimony of Dr. Zagal (Ex. 1003 ¶¶ 156–160, 178, 180) which provide “some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR*, 550 U.S. at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). Such testimony was lacking in the cases Patent Owner relies on. *See Securus*, 701 F. App'x at 977; *Microsoft*, 662 F. App'x at 990.

Patent Owner further argues that “Ho's ‘interactive information elements’ are not, in fact, ‘complementary’ to Sturman's advertisement delivery scheme.” PO Resp. 39 (citing Ex. 2005 ¶¶ 82–86); *see also id.* at 39–42; PO Sur-reply 19–21. Instead, Patent Owner argues, “Ho's ‘interactive information elements’ would be inconsistent with Sturman's

invention and corresponding goals.” PO Resp. 39 (citing Ex. 2005 ¶¶ 82–86); *see also* PO Sur-reply 19.

Specifically, Patent Owner argues Sturman is directed to a centralized advertisement server “to facilitate advertisers to ‘reach’ a desired target audience ‘across numerous game titles’ ‘substantially simultaneously.’” PO Resp. 40 (emphasis omitted) (citing Ex. 1006, code (57)) (quoting Ex. 1006 ¶¶ 18, 24). Patent Owner notes that Sturman specifically provides the example of how “advertisers can reach millions of game players in a single night,” such as reaching “1 million men ages 18–34 at 8 p.m. on Thursdays.” PO Resp. 40 (emphasis omitted) (quoting Ex. 1006 ¶¶ 24 (first quote), 18 (second quote)); *see also* PO Resp. 40–41 (describing specific time issues for advertisements) (citing Ex. 1006 ¶¶ 23, 24, 27). According to Patent Owner, in view of that requirement, a person having ordinary skill in the art would not have modified Sturman with Ho’s interactive information elements such that advertisements would not be displayed until a user activates an otherwise hidden advertisement. PO Resp. 41–42 (citing Ex. 2005 ¶¶ 82–86; Ex. 1006 ¶ 18; *In re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984); *In re Ratti*, 270 F.2d 810, 813 (CCPA 1959); MPEP § 2143.01); PO Sur-reply 19. Indeed, Patent Owner argues, Sturman specifically teaches problems associated with the static advertisements of Ho. PO Sur-reply 20 (citing Ex. 1006 ¶¶ 3, 4, 23).

We do not agree with Patent Owner’s arguments. Sturman criticizes static advertisements in video games that never change:

Various techniques have been described to display advertisements in video games. For example, video game developers/publishers may place advertisement-related images with the scenery of their games (e.g., billboard, stadium signs,

etc.). In many cases, these advertisements are built in to the game code (e.g., hard coded) and displayed consistently (e.g., at the same place/time) in the game. *Based on this hard coding, they cannot be changed.*

Ex. 1006 ¶ 3 (emphasis added). Sturman further criticizes approaches which are limited to a single game and do not allow an advertiser to reach a larger audience across multiple game titles over a short period of time. *Id.* ¶ 4.

However, Ho does not have the problems that Sturman criticizes; instead, it makes the same criticism as Sturman about static advertisements that do not change. *See* Ex. 1004, 1:26–33 (Ho criticizes “static advertisements” as less “engag[ing]” and thus less effective.). To the contrary, solving those problems is consistent with Ho’s interactive information elements which are not hard coded into the game. *See* Ex. 1004, 9:25–10:25. Because Ho’s interactive information elements are downloaded from a server, they are not hard coded and can be sent during specific time periods. *See id.* at 2:11–18 (describing how Ho’s advertisements are updated), 9:7–15 (describing how interactive information elements can give public service announcements at specific times, such as a warning for a hurricane, earthquake, or tsunami), 9:25–10:25, Fig. 5 (describing how interactive information elements are updated by the server). And because Ho’s interactive information elements are consistent with Sturman’s goals (*see* Ex. 1003 ¶¶ 157–159), we fail to see how such a combination would render the combination inoperable for its intended purpose. *See Gordon*, 733 F.2d at 902; *Ratti*, 270 F.2d at 813. Instead, the proposition set forth in *Ratti* and *Gordon* regarding changing the principles of operation of the prior art is inapplicable in cases such as this where the modified apparatus will operate “on the same principles as before.” *In re Mouttet*, 686 F.3d 1322,

1332 (Fed. Cir. 2012) (quoting *In re Umbarger*, 407 F.2d 425, 430–31 (CCPA 1969)).

Additionally, Patent Owner’s argument focuses on what an advertising executive would be interested in. *See* PO Resp. 41–42 (focusing on different delivery timing for advertisements); PO Sur-reply 19–20 (same); Tr. 29:1–23 (Patent Owner discussing a conversation between advertising executives). However, an obviousness analysis is done from the perspective of a person having ordinary skill in the art. *See* 35 U.S.C. § 103(a) (“A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102, if the differences between the subject matter sought to be patented and the prior art are *such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.*” (emphasis added)); *KSR*, 550 U.S. at 417 (“When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. *If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability.*” (emphasis added)). In this proceeding, we have adopted Patent Owner’s definition of a person having ordinary skill in the art and it does not recite any experience or knowledge of advertising. *See* PO Resp. 2; Section II.B, *supra*. What an advertising executive might be interested in for business purposes is of no interest to the person having ordinary skill in the art. *See Orthopedic Equip. Co., Inc. v. United States*, 702 F.2d 1005, 1013 (Fed. Cir. 1983) (“[T]he fact that the two disclosed apparatus would not be combined by businessmen for economic reasons is not the same as saying that it could not be done because skilled

persons in the art felt that there was some technological incompatibility that prevented their combination. Only the latter fact is telling on the issue of nonobviousness.”); *In re Farrenkopf*, 713 F.2d 714, 718 (Fed. Cir. 1983) (“That a given combination would not be made by businessmen for economic reasons does not mean that persons skilled in the art would not make the combination because of some technological incompatibility.”).

Patent Owner further argues that “Sturman’s disclosure that some of its ‘ad units’ may be ‘interactive’ does not demonstrate” that a person having ordinary skill in the art would have combined Ho and Sturman. PO Resp. 42–43; *see also* PO Sur-reply 20–21. Specifically, Patent Owner argues that Sturman uses interactive to refer to a result after the user interacts with the advertisement, such as “a game character eating a brand name energy bar to boost her power in the game.” PO Resp. 42–43 (citing Ex. 1006 ¶ 20); *see also* PO Sur-reply 20–21 (citing Ex. 1006 ¶ 20; 2005 ¶ 80). According to Patent Owner, “Sturman never suggests that an ad unit may be ‘interactive’ in the sense that the advertisement content associated with the ad unit (*e.g.*, the ‘brand name’ of the ‘energy bar’) is not displayed until a game character activates the advertisement content within the ad unit.” PO Resp. 43 (citing Ex. 2005 ¶ 80).

We do not agree with Patent Owner’s argument. Specifically, we fail to see a difference between how Sturman and Ho use the term “interactive.” Although the specific example Patent Owner cites is the effect of using a product, the teaching of Sturman is broader and includes, as a result of the interaction, “a click-through advertisement,” exactly how Ho works:

Some available ad units may be *interactive within the game context* (*e.g.*, a game character eating a brand name energy bar to boost her power in the game, a brand-related “mini-game”

presented between levels, *a click-through advertisement*, etc.) and may bring aspects of the real world into the game (e.g., a player can enter a code from a product to provide advantages in the game).

Ex. 1006 ¶ 20 (emphases added); *see also* Ex. 1004, 2:11–18, 5:28–36 (Ho’s description of interactive advertising).

Patent Owner also argues that we should not consider Dr. Zagal’s testimony. PO Resp. 43–44. Patent Owner argues that because “Dr. Zagal’s testimony largely just parrots the assertions made by Petitioner in the Petition,” it “is thus entitled little to no weight.” PO Resp. 43 (citing *MarkForged Inc. v. Continuous Composites, Inc.*, IPR2022-01431, Paper 7 at 14 (PTAB Jan. 18, 2023); *Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 9 at 15 (PTAB Aug. 24, 2022) (precedential)¹⁷).

We do not agree with Patent Owner’s argument. Under our rules, “[e]xpert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight.” 37 C.F.R. § 42.65(a). We have reviewed Dr. Zagal’s testimony on this subject (*see* Ex. 1003 ¶¶ 156–160, 163, 166, 172, 177–178) and find that it complies with our requirements. Specifically, Dr. Zagal provides his opinion and identifies specific evidence in the record that supports it.

We do not find *MarkForged*, a nonprecedential decision, persuasive. Although *MarkForged* cites 37 C.F.R. § 42.65(a) as support for the proposition that expert testimony “is entitled to little to no weight [if] it merely parrots the Petition,” the rule is silent on that point. Patent Owner has not directed us to any rule or precedential decision that says that non-

¹⁷ The decision was affirmed by the Director. *Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 12 (PTAB Aug. 24, 2022).

conclusory testimony which cites underlying factual support, such as Dr. Zagal gives in this proceeding, is entitled to no weight.

Additionally, the precedential *Xerox* decision is inapplicable to the facts of this case. In *Xerox*, the Board found the expert's testimony entitled to little weight when it both parroted a conclusory assertion from the petition *and* did not provide support or additional reasoning:

Petitioner's only evidence in support of its assertion that blocking the purchaser would require recording the blocking in a record in the user's account is the opinion of its Declarant, Dr. Jones. Pet. 28 (citing Ex. 1003 ¶ 54). We have reviewed this excerpt from Dr. Jones' declaration and note that it merely repeats, *verbatim*, the conclusory assertion for which it is offered to support. *See* Ex. 1003 ¶ 54 (Dr. Jones declaring that "[a] POSITA would understand that such a blocking would require recording the blocking in a data record associated with that user's account."). Dr. Jones does not cite to any additional supporting evidence or provide any technical reasoning to support his statement. Thus, the cited declaration testimony is conclusory and unsupported, adds little to the conclusory assertion for which it is offered to support, and is entitled to little weight. *See* 37 C.F.R. § 42.65(a).

Xerox, Paper 9 at 15. Accordingly, the problem with the expert testimony in *Xerox* was not the verbatim repetition of the petition, but the conclusory opinion without underlying factual support. Because Dr. Zagal cited to factual support for his opinions (*see* Ex. 1003 ¶¶ 157–159, 174, 175, 178, 180), *Xerox* is inapposite.

Moreover, the similarity between the Petition and Dr. Zagal's testimony proves nothing. Although it is possible that Dr. Zagal parroted the Petition, it is also possible that the Petition parrots his testimony or that the similarity of both the Petition and Dr. Zagal's testimony was the result of a collaboration between the lawyers and Dr. Zagal. Dr. Zagal was not cross-

examined, so we are left with Patent Owner’s attorney argument as to what happened. But attorney argument is not evidence. *Elbit Systems of America, LLC v. Thales Visionix, Inc.*, 881 F.3d 1354, 1359 (Fed. Cir. 2018) (“Attorney argument is not evidence.” (quoting *Icon Health & Fitness, Inc. v. Strava, Inc.*, 849 F.3d 1034, 1043 (Fed. Cir. 2017))).

c) “*A Location in-Game Associated with Activating the Hot Spot, wherein the Location in-Game Is Represented by a Non-Promotional Background Object*”

Limitation 1(d)(i) recites that the claimed “hot spot information” comprises “a location in-game associated with activating the hot spot, wherein the location in-game is represented by *a non-promotional background object.*” Ex. 1001, 14:25–29 (emphasis added). Petitioner argues that the combination of Sturman and Ho teaches limitation 1(d)(i), including the use of a non-promotional background object. Pet. 56–58. For the reasons set forth below, Petitioner persuasively shows that the combination of Sturman and Ho teaches that limitation.

Considering the combination of Sturman and Ho as discussed above, a person having ordinary skill in the art would have understood that integrating Ho’s hot spots into the locations from Sturman ¶ 19 discussed above turns the locations into “non-promotional background objects.” See Ex. 1003 ¶¶ 174–176. For example, because Sturman’s ads would be visible only after a hot spot is activated (Ex. 1003 ¶¶ 156, 175), a person having ordinary skill in the art would have recognized that initially Sturman’s ad units are non-promotional objects. That is, a person having ordinary skill in the art would have understood that at some time (such as the beginning of the game) Sturman’s ad unit would not feature an advertisement, but, per

Ho, an advertisement would be displayed after a hot spot has been activated. *See* Ex. 1006 ¶¶ 19–20; Ex. 1003 ¶¶ 156, 175, 177, 178, 180.

Additionally, Petitioner shows that the locations from Sturman paragraph 19 are “background objects.” Specifically, a background object is an object that is not in the foreground. Petitioner identifies such objects such storefront signs and Jumbotron screens. *See* Ex. 1006 ¶ 19; Ex. 1003 ¶¶ 174, 176; Ex. 1020 ¶ 35.

Because the objects are both non-promotional and located in the background, they are “non-promotional background objects” as recited in claim 1.

Patent Owner argues that Sturman, either alone or in combination with Ho, does not teach “non promotional background objects.” PO Resp. 44–51. Specifically, Patent Owner argues that Sturman’s ad units are neither non-promotional objects nor background objects. We address the arguments individually.

First, Patent Owner argues that because Sturman discusses “ad units,” they are not non-promotional objects. *Id.* at 44–45. Patent Owner further argues that Petitioner admitted as much, stating that “Sturman does not expressly teach that promotional content is ‘hidden’ and only displayed when a hot spot is activated.” *Id.* at 45 (quoting Pet. 58).

Patent Owner’s argument is inapposite. “The question in an obviousness inquiry is whether it would have been obvious to a person of ordinary skill in the art to combine the relevant disclosures of the two references, not whether each individual reference discloses all of the necessary elements.” *Game & Tech*, 942 F.3d at 1352. Petitioner argues, and we agree, that it is the combination of Sturman’s ad units with Ho’s

interactive information elements that teaches this limitation. *See* Pet. 57 (“To the extent Patent Owner argues that Sturman’s ad units and associated location information and advertisement content are not considered to be hot spots and hot spot information, the Sturman-Ho combination renders this limitation obvious based on Ho’s teaching of interactive information elements.” (citing Ex. 1003 ¶ 177)); Pet. Reply 23 (“However, the Petition relies on the combination of Ho and Sturman for this limitation.”). Therefore, the question for us is not whether Ho or Sturman individually teach the limitation, but what does the combination teach. And, as discussed above, the answer to that question is that the combination teaches non-promotional objects.

Second, Patent Owner argues that Petitioner has not demonstrated that Sturman’s “ad units” are background objects. PO Resp. 45–48. Specifically, Patent Owner argues that Sturman never describes its ad units as background objects and Dr. Zagal’s testimony on this point is conclusory. *Id.* at 45–46 (citing Ex. 2005 ¶ 92; Ex. 1006; Ex. 1003 ¶ 176). According to Patent Owner, in the Board’s original decision denying institution, the Board found that there was insufficient evidence showing that Sturman’s ad units were background objects. *Id.* at 46 (“[I]t is unclear that . . . the ad units . . . are background objects. . . . The Petition is silent as to any reasoning as to why it is a background object.” (quoting Paper 10, 29)). With regard to Dr. Zagal’s testimony, Patent Owner argues that he just “repeats Petitioner’s conclusions in the Petition—nearly verbatim.” *Id.* (citing Pet. 57; Ex. 1003 ¶ 176). Patent Owner also argues that we originally afforded Dr. Zagal’s testimony on this issue “no weight.” *Id.* at 47 (quoting Paper 10 at 29–30).

We do not agree with Patent Owner’s argument. There is no requirement in an obviousness analysis for the prior art to “contain a description of the subject matter of the appealed claim in *ipsissimis verbis*.” *In re May*, 574 F.2d 1082, 1090 (CCPA 1978). Thus, it does not matter whether Sturman describes its ad units as background objects; rather, the issue is whether they are background objects based on our claim construction. And, as discussed above, the answer to that question is yes.

Patent Owner also reads too much into our original decision denying institution. At no point in that decision did we state that Sturman’s ad units are not background objects; instead, we questioned whether all of them were and specifically discussed only a single type, a T-shirt:

Moreover, it is unclear that *all of the ad units* that Petitioner relies on are background objects. For example, “T-shirts on a game character” would be a foreground object if the character is in the foreground. The Petition is silent as to any reasoning as to why it is a background object. Again, Petitioner’s conclusory argument without sufficient reasoning does not satisfy Petitioner’s burden of persuasion.

Paper 10 at 29 (emphasis added). We never stated in that decision that a Jumbotron or storefront sign are not in the background. That distinction, along with the language describing what we questioned, was intentional as although the majority of the Board stated that some of the objects were not background objects, we did not state that all of them were not.

Additionally, Patent Owner fails to acknowledge a key difference in the posture between that original decision and the current decision: the construction of “non-promotional background object.” In that original decision, as requested by the parties, we did not expressly construe any terms. Paper 10 at 9–10. However, in the subsequent Institution Decision

and this Final Written Decision, we have expressly construed the term in light of the specification and prosecution history. *See* Section II.C.1. Accordingly, any statements we made prior to that construction are of limited, if any, persuasiveness.

For the same reason, Patent Owner reads too much into our original criticism of Dr. Zagal’s testimony. That criticism was made based on the lack of a claim construction. *See* Paper 10. However, in light of that claim construction, because the testimony sufficiently shows how the combined Ho-Sturman objects are non-promotional background objects under the claim construction, we no longer find that testimony conclusory. *See* Ex. 1003 ¶¶ 156, 173–178. That is, Dr. Zagal explains that certain elements, such as a storefront sign or Jumbotron screen, are in the background. *Id.* ¶ 176. Although Dr. Zagal could have provided a more detailed explanation as to why certain objects are “non-promotional background object[s],” Dr. Zagal identifies specific items from the reference that are “non-promotional background object” and testifies, with sufficient reasoning that they are “non-promotional background objects.” *See* Ex. 1003 ¶¶ 156, 174–178, 180; Ex. 1020 ¶ 35. That is enough.

As for the similarity between Dr. Zagal’s testimony and the Petition, we do not agree with that argument for the same reasons discussed above in the preceding section on the reason to combine. *See* Section II.F.2(c).

With regard to the combination of Ho and Sturman, Patent Owner argues that a person having ordinary skill in the art would not have combined the teachings of Ho and Sturman. PO Resp. 48–51. According to Patent Owner, Ho’s interactive information elements are foreground objects

and there is not motivation to apply Ho's interactive information elements to background objects. *Id.*

We do not agree with Patent Owner's arguments. As discussed above Section II.F.2(c), Petitioner has sufficiently shown a reason to combine Sturman and Ho. Patent Owner's focus on whether the objects are in the foreground (Ho) or background (Sturman) does not alter that conclusion. The combination was based on a way to display advertisements while maintaining interest in a game with the use of hot spots. The reason for the combination does not depend on whether the objects are in the foreground or the background. Moreover, Patent Owner does not provide any arguments regarding technical difficulties in having a hot spot associated with a background object. *See KSR*, 550 U.S. at 417.

d) Other Limitations

Petitioner argues that the combination of Sturman and Ho teaches the other limitations of claim 1¹⁸ and that a person having ordinary skill in the art would have combined the relevant teachings of Sturman and Ho. *See* Pet. 50–56, 58–59. With the exception of “hot spot” and “hot spot information,” which we discussed above in Section II.F.2(a), at the present time Patent Owner does not dispute that Ho teaches those limitations. *See* PO Resp. 20–26. After reviewing Petitioner's arguments and information regarding the limitations identified above, including the Zagal Declaration, we are persuaded that Petitioner demonstrates that the combination of

¹⁸ The other limitations are limitations 1(a), (1)(b), 1(c), 1(d), 1(d)(ii), and 1(e), which include the preamble. Because Petitioner sufficiently shows that the prior art teaches the preamble, we need not determine whether the preamble is limiting. *See Nidec*, 868 F.3d at 1017.

Sturman and Ho teaches limitations 1(a), 1(b), 1(c), 1(d), 1(d)(ii), and 1(e) and that a person having ordinary skill in the art would have combined the teachings of Sturman and Ho in the manner set forth in the Petition.

e) Conclusion Regarding Claim 1

Accordingly, Petitioner has shown by a preponderance of the evidence that claim 1 is unpatentable as obvious in view of Sturman and Ho.

3. Claim 2

Petitioner argues that the combination of Sturman and Ho teaches the limitations recited in claim 2 and that a person having ordinary skill in the art would have combined the teachings with a reasonable expectation of success. Pet. 60. Petitioner's arguments are supported by citations to the prior art and the testimony of Dr. Zagal. *See id.* We have reviewed Petitioner's arguments and evidence, agree with them, and, therefore, adopt Petitioner's arguments and evidence as our own.

Patent Owner does not separately address claim 2. *See* PO Resp. 51.

Petitioner has shown by a preponderance of the evidence that the subject matter of claim 2 would have been obvious over Sturman and Ho. *Incept LLC v. Palette Life Scis., Inc.*, 77 F.4th 1366, 1375 (Fed. Cir. 2023) ("Where a party 'does not raise any arguments with respect to any other claim limitation, nor does it separately argue [the] dependent claim,' '[the] dependent claim . . . stands or falls together with [the] independent claim.'" (quoting *Genentech, Inc. v. Hospira, Inc.*, 946 F.3d 1333, 1340 (Fed. Cir. 2020))).

4. Claim 6

Petitioner argues that the combination of Sturman and Ho teaches the limitations recited in claims 6 and that a person having ordinary skill in the

art would have combined the teachings with a reasonable expectation of success. Pet. 61–63. Petitioner’s arguments are supported by citations to the prior art and the testimony of Dr. Zagal. *See id.* We have reviewed Petitioner’s arguments and evidence, agree with them, and, therefore, adopt Petitioner’s arguments and evidence as our own.

Patent Owner relies exclusively on the arguments it relies on for claim 1. PO Resp. 54–55. We do not agree with those arguments for the same reasons as discussed above. *See* Section II.F.2(a)–(c).

Petitioner has shown by a preponderance of the evidence that the subject matter of claim 6 would have been obvious over Sturman and Ho.

5. *Claims 3 and 7*

Claim 3 depends from claim 1 and recites “wherein the hidden promotional content is pre-selected based on the proximity of the mobile communication device to a physical location related to the hidden promotional content.” Ex. 1001, 14:38–41. Claim 7 depends from claim 6 and recites the same limitation. *Id.* at 15:1–4. Petitioner argues that the combination of Sturman teaches that additional limitation. Pet. 60, 63. For the reasons set forth below, we are persuaded by Petitioner’s argument.

Sturman teaches that “advertisements [are] retrieved from the advertisement serving database 122 by the advertising matching and weighting system 320 [and] are assigned a weight by the advertising matching and weighting system 320.” Ex. 1006 ¶ 47. This is done by “calculat[ing] the weight of each advertisement based on several factors,” and “advertising can be further targeted based upon specific demographic characteristics of a game player.” *Id.* ¶¶ 47 (first quotation), 48 (second quotation). This includes player-specific information including the user’s

“IP address” or “geographic information (e.g., country, region/state, city and Direct Marketing Associate (DMA) areas).” *Id.* ¶ 54. A person having ordinary skill in the art would have understood that “ads whose matching criteria include a geographic location will be selected based on the proximity of the player to that location (*i.e.*, is the player in the country, region/state, or city associated with that ad).” Ex. 1003 ¶ 187. In other words, an advertiser selects ads to run, and those ads become part of the pool from which the advertising matching and weighting system selects ads. Because the ad targeting happens before the matching and weighting system determines which ads to serve, ads are pre-selected before they are ultimately selected by the matching and weighting system. This is consistent with the ’089 patent’s written description, which states the following:

The hot spot information may identify content for presenting to the user when the hot spot is activated, and the content may be promotional in nature. In some embodiments, the content is pre-selected by the server based on a model type associated with the communications device, a service subscription associated with the communications device, or a service provider for the service subscription associated with the communications device.

Ex. 1001, 3:18–25. Thus, the ’089 patent discloses that content is selected from pre-selected content.

Patent Owner argues that “the Petition wholly fails to address whether the purported content in Choi [sic, Sturman] is ‘*pre-selected*,’ much less whether it is ‘pre-selected based on the proximity of the mobile communication device to a physical location related to the hidden promotional content,’ as the claim requires.” PO Resp. 52 (discussing Pet. 60). According to Patent Owner, “[s]imply put the Petition does not address

the claim language, and even if it did, it could not establish that Sturman meets the claim.” *Id.*

We do not agree with Patent Owner’s argument. Although it is true that the Petition and Dr. Zagal do not use the word “pre-select” when discussing this claim limitation (*See* Pet. 60; Ex. 1003 ¶ 187), the Petition and Dr. Zagal’s supporting testimony, which we fully credit, describe pre-selecting. That is, as described more clearly in the Reply, “targeting advertisements in this manner demonstrates pre-selection because ads are selected from a pool of ads pre-selected based on criteria such as geographic location.” Pet. Reply 26.

Patent Owner further argues that “Dr. Zagal’s conclusory testimony simply parrots the Petition and thus cannot bolster the Petition’s failed analysis.” PO Resp. 52. Patent Owner also argues that “Dr. Zagal simply states a conclusion—with no support—that is irrelevant to the claim, that ‘ads whose matching criteria include a geographic location will be selected based on the proximity of the player to that location.’” *Id.* at 53 (quoting Ex. 1003 ¶ 187).

We do not agree with Patent Owner. Dr. Zagal cites to the specific portions of Sturman that support his opinions. *See* Ex. 1003 ¶ 187 (citing Ex. 1006 ¶¶ 47, 54). Having given the basis for his opinion, Dr. Zagal’s testimony is anything but conclusory. And, for the same reasons discussed above about the Petition, Dr. Zagal’s testimony is not irrelevant. Instead, the testimony showing the selection from a group of ads supports his opinion that the ads are pre-selected as recited in claims 3 and 7.

As for the similarity between Dr. Zagal’s testimony and the Petition, we do not agree with that argument for the same reasons discussed above. *See* Section II.F.2(c).

Patent Owner also argues that we should disregard Petitioner’s argument regarding a different prior art patent in a different proceeding. PO Sur-reply 17 (citing Pet. Reply 18). That argument is moot as we do not rely on that decision.

Accordingly, Petitioner has shown by a preponderance of the evidence that the subject matter of claims 3 and 7 would have been obvious over Sturman and Ho.

6. *Claims 4, 5, 9, and 10*

Claim 4 depends from claim 1 and recites “further comprising the step of tracking the hot spot information that has been downloaded to the mobile communication device.” Ex. 1001, 14:42–44. Petitioner argues that Sturman teaches the additional limitation recited in claim 4. Pet. 61. For the reasons set forth below, Petitioner sufficiently shows that Ho teaches those elements.

Sturman teaches when a session is established with advertisement server 114, the system creates a record that tracks *all* communications:

In some embodiments, the advertisement recipient client 104 begins by establishing or joining a session with the advertisement server 114 (Figure 1). Establishing this session may create a record in the active session database 124 (Figure 1), which registers the game player as the first member of the new session *and is used to track and record all communications and data sent to and received from the advertisement recipient client 104.*

Ex. 1006 ¶ 42 (emphasis added). That will include all of the advertisements delivered during a session. *Id.* ¶ 49 (“The data in the active session database

124 records the advertisements that have been delivered to a session.”); Ex. 1003 ¶ 189. Because the advertisements are part of the hot spot information, Petitioner has shown Sturman teaches the additional limitation recited in claim 4.

Patent Owner argues that paragraphs Petitioner relies on relate to advertisements, not hot spot information, and therefore do not teach the additional limitation recited in claim 4. PO Resp. 53–54.

We do not agree with Patent Owner’s argument. As discussed above in Section II.F.2(a) and (b), in the combination of Sturman and Ho, the hot spots are the interactive information elements that are used to display advertisements when the hot spot is activated. Because of that, the hot spot information includes the advertisement, which Sturman teaches is recorded. Accordingly, contrary to Patent Owner’s argument, in the Sturman-Ho combination, that advertisement (hot spot information) will be tracked and recorded. *See* Ex. 1003 ¶ 189

Patent Owner also argues that “Dr. Zagal’s conclusory testimony as to this limitation again simply parrots the Petition and thus cannot bolster the Petition’s failed analysis.” PO Resp. 54.

We do not agree with Patent Owner’s argument for the same reasons discussed above regarding the reason to combine. *See* Section II.F.2(c). Moreover, Dr. Zagal’s testimony is far from conclusory as he identifies the evidence that his opinion is based on and provides sufficient reasoning. *See* Ex. 1003 ¶ 189.

Petitioner argues that the combination of Sturman and Ho teaches the limitations recited in claims 5, 9, and 10 and that a person having ordinary skill in the art would have combined the teachings with a reasonable

expectation of success. Pet. 61, 64. Petitioner’s arguments are supported by citations to the prior art and the testimony of Dr. Zagal. *See id.* We have reviewed Petitioner’s arguments and evidence, agree with them, and, therefore, adopt Petitioner’s arguments and evidence as our own.

Patent Owner does not separately address claims 5 and 10. *See* PO Resp. For claim 9, Patent Owner relies on its arguments discussed above for claim 4, which we do not agree with.

Petitioner has shown by a preponderance of the evidence that the subject matter of claims 4, 5, 9, and 10 would have been obvious over Sturman and Ho.

7. *Claim 8*

Claim 8 depends from claim 6 and recites “wherein the hot spot information is pre-selected by the server based on a model type associated with the communications device, a service subscription associated with the communications device, or a service provider for the service subscription associated with the communications device.” Ex. 1001, 15:5–10. Petitioner argues that the combination of Sturman teaches that additional limitation. Pet. 63–64. For the reasons set forth below, we are persuaded by Petitioner’s argument.

Sturman teaches that the matching algorithm for selecting advertisements in response to a request is based on “‘explicit inventory targeting,’ where certain ads may be matched to specific ad units, which may be linked to a particular game title, or, more importantly, may be linked to specific ‘SKUs.’” Ex. 1003 ¶ 202; *see also* Ex. 1006 ¶ 53 (“Examples of targeting criteria used in matching include explicit inventory targeting (e.g., targeting specific titles, SKUs, zones, available ad units/inventory elements,

etc.)”). Sturman further describes how each SKU, which can also be called a “client type,” “includes a type of game console.” Ex. 1006 ¶ 44; *see also* Ex. 1003 ¶ 202. Sturman also describes how each request for an advertisement includes “a unique identifier to indicate the client type.” Ex. 1006 ¶ 44; *see also* Ex. 1006 ¶ 54 (describing how “[p]layer-specific information” may be used for ad targeting, which includes a player’s “OS or hardware versions”); Ex. 1003 ¶ 202. In other words, the advertisement selected for the hot spot, which is part of the hot spot information, is pre-selected based on “a model type associated with the communications device” as recited in claim 8. *See* Ex. 1003 ¶¶ 201–202.

Patent Owner argues that although hot spot information includes both a location and hidden promotional content, the Petition “fails to address how Sturman discloses or renders obvious the server pre-selecting the “location . . . based on the factors recited in dependent claim 8.” PO Resp. 56–57; *see also* PO Sur-reply 23.

Patent Owner reads too much into the claim. Claim 8 does not recite that ***all*** of the hot spot information must be pre-selected based on the recited factors. Nor does claim 8 recite that the pre-selected hot spot information must be based ***exclusively*** on the listed factors. Instead, claim 8 simply recites that “hot spot information is pre-selected” based on a recited factor. Ex. 1001, 15:5–10. Patent Owner argument, which requires all aspects of the hot spot information to be based on the recited factors is not commensurate with the scope of the claim. *See Masimo Corporation v. Sotera Wireless, Inc.*, 2023 WL 6307959, *2 (Fed. Cir. Sept. 28, 2023) (“We agree with the Board that the plain meaning of ‘based on’ and ‘threshold’ in

claim 1 are both broad, and this broad claim language does not exclude the use of additional alarm thresholds or other conditions to trigger an alarm.”).

Patent Owner further argues that “Dr. Zagal does nothing to support a conclusion of obviousness. Instead, he parrots the same statements made in the Petition.” PO Resp. 57. Patent Owner also argues that “Zagal’s conclusory testimony should be thus afforded little to no weight and cannot carry Petitioner’s burden.” *Id.*

We do not agree with Patent Owner. Dr. Zagal cites to the specific portions of Sturman that support his opinions. *See* Ex. 1003 ¶ 202 (citing Ex. 1006 ¶¶ 18, 22, 36, 44, 52, 54). Having given the basis for his opinion, Dr. Zagal’s testimony is anything but conclusory. As for the similarity between Dr. Zagal’s testimony and the Petition, we do not agree with that argument for the same reasons discussed above in the section on the reason to combine. *See* Section II.F.2(c).

Accordingly, Petitioner has shown by a preponderance of the evidence that the subject matter of claim 8 would have been obvious over Sturman and Ho.

III. CONCLUSION¹⁹

For the foregoing reasons, we conclude that Petitioner has demonstrated by a preponderance of the evidence the unpatentability of

¹⁹ Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this decision, we draw Patent Owner’s attention to the April 2019 *Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding*. *See* 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent

continued on the next page

claims 1–10 of the '089 patent. Specifically, Petitioner has shown by a preponderance of the evidence that claims 1–10 are unpatentable as obvious over Sturman and Ho. However, Petitioner has not shown by a preponderance of the evidence (1) that claims 1–3 and 6–8 are unpatentable as obvious over Ho, Jiau, and Choi and (2) that claims 4, 5, 9, and 10 are unpatentable as obvious over Ho, Jiau, Choi, and Ellis.

In summary:

Claim(s)	35 U.S.C. §	Reference(s)/Basis	Claim(s) Shown Unpatentable	Claim(s) Not Shown Unpatentable
1–3, 6–8	103(a)	Ho, Jiau, Choi		1–3, 6–8
4, 5, 9, 10	103(a)	Ho, Jiau, Choi, Ellis		4, 5, 9, 10
1–10	103(a)	Sturman, Ho	1–10	
Overall Outcome			1–10	

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that Petitioner has shown by a preponderance of the evidence that claims 1–10 of the '089 patent are unpatentable; and

FURTHER ORDERED that because this is a Final Written Decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. *See* 37 C.F.R. § 42.8(a)(3), (b)(2).

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PLR WORLDWIDE SALES LTD.,
Petitioner,

v.

FLIP PHONE GAMES INC.,
Patent Owner.

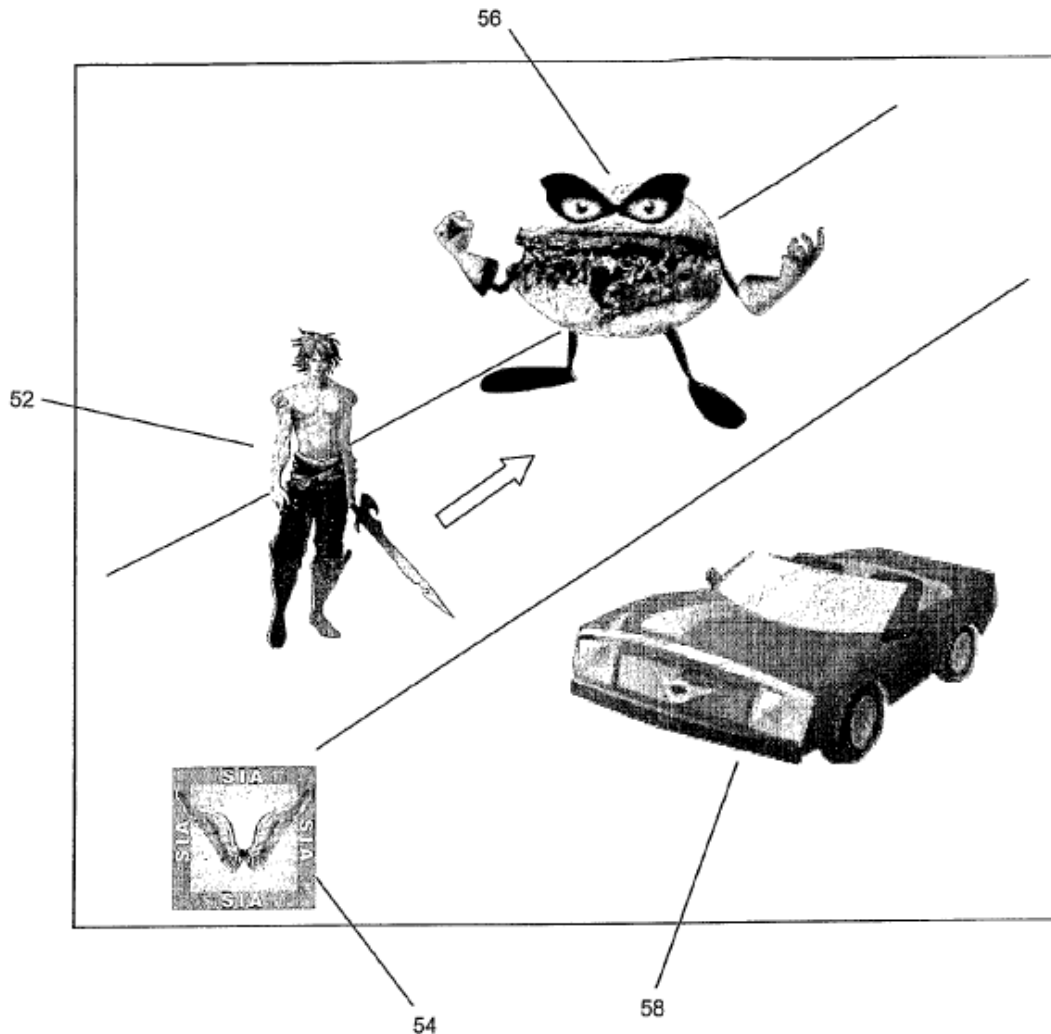
IPR2024-00133
Patent 8,688,089 B2

Before DAVID C. McKONE, DANIEL J. GALLIGAN, and
SCOTT B. HOWARD, *Administrative Patent Judges*.

GALLIGAN, *Administrative Patent Judge*, concurring.

I concur in the decision's determination that claims 1–10 of the '089 patent are unpatentable based on the combination of Sturman and Ho. I respectfully disagree with the decision's determination that Ho does not teach a non-promotional background object. I join all of the majority decision except for Sections II.D–E and Section III's statement regarding the patentability of the claims with respect to the combinations of Ho and Jiau with other references.

Ho's Figure 3 is below.



Referring to Figure 3 above, Ho discloses that,

[a]t a particular juncture in gameplay, a character 52 in the MMORPG controlled by the player may encounter some interactive information elements like a “wings” button 54 to enable the character 52 to fly (an example of an icon in the game), a hamburger monster 56 (an example of a character in the game) and a car 58 (an example of an item in the game).”

Ex. 1004, 5:2–5. Ho further explains that “the hamburger monster 56 may be engaged only when the character 52 fights and successfully slays the hamburger monster 56.” Ex. 1004, 5:9–10.

The Institution Decision following remand from the Director states that Ho's Figure 3 "is an example of the embodiment of Ho showing a wings button, a car, and a hamburger monster in the foreground." Inst. Dec. 50 (citing Ex. 1004, 5:1–5, Fig. 3). The Decision further "question[ed] whether Petitioner sufficiently shows" that objects with which the player interacts in Ho's Figure 3 "are not in the foreground." Inst. Dec. 50.

Having considered the record developed since institution, I am now persuaded that hamburger monster 56 is not in the foreground based on Petitioner's argument regarding the arrow's indication of direction: "Figure 3 depicts an arrow indicating that the player character 52 must approach the hamburger monster as the character travels down the pathway indicated by the parallel lines." Pet. Reply 14. Considering Figure 3 in this light, I agree that the arrow between the parallel diagonal lines shows that the player's character 52 in the foreground would proceed into the screen to attack hamburger monster 56. This means that, at least in the moment in time depicted in Figure 3, hamburger monster 56 is in the background and is, therefore, not in the foreground according to the claim construction.

I would also find that hamburger monster 56 does not display a promotional message unless a hot spot is activated, which does not appear to be disputed by Patent Owner. *See* Ex. 1004, 5:35–36 ("[M]aking the character 52 slay the hamburger monster 56 may generate a sub-screen showing an advertisement of a chain of fast food restaurants."). The claims, however, do not require the hot spot to be activated. Indeed, the claims do not require displaying the hot spot information at all; rather, independent claims 1 and 6 recite uploading or sending the hot spot information to the mobile communication device.

Based on the foregoing, I would find that Figure 3 shows a game location “represented by a non-promotional background object,” even though at some point during game play hamburger monster 56 may no longer be in the background.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

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IPR2024-00133
Patent 8,688,089 B2

Before DAVID C. McKONE, DANIEL J. GALLIGAN, and
SCOTT B. HOWARD, *Administrative Patent Judges*.

McKONE, *Administrative Patent Judge*, dissenting-in-part.

I agree with the Majority decision that Petitioner has not proved, by a preponderance of the evidence, that claims 1–3 and 6–8 are unpatentable over Ho, Jiau, and Choi, or that claims 4, 5, 9, and 10 are unpatentable over Ho, Jiau, Choi, and Ellis.

However, for essentially the same reasons as given in my dissent to the Institution Decision, I dissent because Petitioner has not shown that Sturman and Ho teach that a background object would have been an in-game location associated with activating a hot spot. The Majority decision construes “non-promotional background object” to mean “an object that is

not in the foreground and does not display a promotional message unless a hot spot is activated.” However, Petitioner has at most shown that Sturman’s foreground objects would be associated with activating hot spots. Thus, for example, for claim 1, Petitioner has not shown that Sturman and Ho teach “a location in-game associated with activating the hot spot, wherein the location in-game is represented by a non-promotional background object.”

Sturman describes presenting advertisements on “pre-designated geometry within the game, such as billboards, storefront signs, panel trucks, Jumbotron screens in a sports stadium, posters on walls, T-shirts on a game character, items used by game characters (e.g., a brand name soft drink or energy bar).” Ex. 1006 ¶ 19. Petitioner relies on this disclosure to show “non-promotional in-game background elements.” Pet. 57 (citing Ex. 1006 ¶ 19). However, other than foreground items such as soft drinks and energy bars used by game characters, Sturman’s objects do not present the user with opportunities to interact. Sturman makes this distinction clear, explaining that “[s]ome available ad units may be interactive within the game context (e.g., a game character eating a brand name energy bar to boost her power in the game . . . , a click-through advertisement, etc.).” Ex. 1006 ¶ 20. Petitioner relies on this disclosure in Sturman to show that “[a]n ad unit may be ‘interactive,’ such that the ad unit information will identify an in-game location that may be interacted with/activated.” Pet. 57 (citing Ex. 1006 ¶ 20; Ex. 1003 ¶ 176). As Patent Owner points out (PO Resp. 51), however, Petitioner admits that the items in Sturman that might correspond to background objects are typically objects that a player would *not* interact with. Pet. 51 (“[M]any of Sturman’s exemplary in-game advertisement

locations are passive/non-interactive elements, such as ‘billboards, storefront signs, panel trucks, Jumbotron screens . . . [and] posters on walls.’” (quoting Ex. 1006 ¶ 19; alterations by Petitioner)). Thus, the Petition proposes a combination in which a skilled artisan would have used Ho’s teaching of interactive information elements (all in the foreground under our construction) to modify Sturman’s interactive objects (also in the foreground under our construction) to be hot spots. *Id.* at 57–58; Ex. 1003 ¶ 177. Yet the Petition’s theory of modifying foreground objects to include hotspots is not sufficient under the claim construction in the Majority decision.

It is not surprising that Petitioner did not contend in the Petition that a skilled artisan would have modified Jumbotrons and storefronts, as the Petition presented evidence under a different claim construction than we adopted, alleging that “background” objects “are not featured objects that a user manipulates in order to play a game,” are “outside of the primary focus of game play,” and “are not themselves needed or required in order to play the game.” Ex. 1003 ¶ 177. Under Petitioner’s proposed construction, an item in the foreground, such as an interactive candy bar, could still be a background object if it is not the primary focus of game play or not required to play the game. Thus, neither Petitioner nor its expert witness went to the trouble of showing (through evidence or reasoning) that Sturman’s billboards, storefront signs, Jumbotron screens, etc., would have been modified to be interactive or include interactive advertisements, as it was not necessary to do so under Petitioner’s proposed construction. What we are left with, considering the Petition’s evidence, is that a skilled artisan would have had reasons to modify Sturman’s interactive foreground objects to include hot spots. But this is not sufficient to show that a skilled artisan

would have combined Sturman and Ho to arrive at “a location in-game associated with activating the hot spot, wherein the location in-game is represented by a non-promotional *background* object,” as recited in claim 1. Thus, I would not find that the evidence and argument presented in the Petition is sufficient to conclude, by a preponderance of the evidence, that Sturman and Ho teach claim 1.

In the Reply, Petitioner clarifies that it relies on Ho (not Sturman) to show examples of hot spots on background objects, referring to the hamburger monster example discussed in the Majority decision above. Pet. Reply 25 (citing Ex. 1004, 4:1–16, Fig. 3; Ex. 1020 ¶¶ 31–32). Thus, Petitioner now proposes using Ho’s purported teaching of interactive background objects to modify Sturman’s non-interactive background objects. I agree with the Majority decision, however, that Ho does not teach hot spots on background objects. Petitioner does not contend in the Reply that Sturman teaches background objects with which a player would interact, or explain (or support with evidence) why a skilled artisan would have made them interactive. Thus, the Reply does not show that either Sturman or Ho teaches a player interacting with a background object.

As a backup, the Reply argues that Patent Owner “offers no reason why a [person of ordinary skill in the art] could not or would not apply Ho’s teachings relating to interactive information elements generally to different types of ad units in Sturman, including ad units associated with non-promotional background objects.” Pet. Reply 25. Under this theory, which the Majority decision appears to adopt, Petitioner has alleged that a skilled artisan would have modified Sturman’s background objects (e.g., Jumbotron or storefront) to associate those objects with interactive hot spots per the

general teachings of Ho. This backup theory is problematic because it purports to shift the burden to Patent Owner to show that a skilled artisan would not have modified Sturman, rather than providing affirmative evidence and reasoning that a skilled artisan would have modified Sturman in this manner. This theory also is entirely conclusory, not logically reasoned, and not supported by evidence. It is important to provide a reasoned explanation why a skilled artisan would have added hotspots to objects a player is not expected to interact with (e.g., Jumbotrons and storefronts), because the Majority decision makes clear that whether an object is in the background is determined at the time a player interacts with that object. *See* Majority Dec. 34 (“When those interactions happen, the interactive information element will be in the foreground.”). The Reply, and the Majority decision, however, lack that reasoned explanation.

Petitioner admits that Sturman’s background objects are “passive/non-interactive elements,” Pet. 51, which makes sense, as a Jumbotron screen, for example, ordinarily would not be an object that a player in a sporting event would interact with. Thus, I would hold Petitioner to its obligation to provide an “articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). As Petitioner has not met this obligation, either in the Petition or the Reply, I would conclude that Petitioner has not met its burden to show, by a preponderance of the evidence, that that Sturman and Ho teach claim 1 (or similar independent claim 6, or the dependent claims).

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