UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PLR WORLDWIDE SALES LIMITED,
Petitioner

v.

FLIP PHONE GAMES, INC.,
Patent Owner

IPR No. IPR2024-00133

Patent No. 8,688,089

PATENT OWNER'S RESPONSE

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EXHIBIT LIST

Exhibit	Description
2001	Playrix's Exchange of Proposed Terms and Claim Elements for Construction, served January 30, 2024
2002	Joint Claim Construction Statement in *Flip Phone Games Inc. v. PLR Worldwide Sales Limited*, No. 2:23-cv-00139-JRG (E.D. Tex.), Dkt. 71
2003	Declaration of Henry H. Houh, Ph.D., in Support of Playrix's Proposed Claim Constructions
2004	Steven D. Moore, Kilpatrick Biography
2005	Declaration of Dr. Robert Akl, D.SC.
2006	CV of Dr. Robert Akl, D.SC.
2007	Complaint for Patent Infringement, *Flip Phone Games Inc. v. PLR Worldwide Sales, Ltd.,* No. 2:23-cv-00139-JRG (E.D. Tex.), Dkt. 1
2008	American Heritage® Dictionary, 4th Edition (2006)
2009	Merriam-Webster's Collegiate Dictionary, 11th Edition (2007)
2010	MacMillan English Dictionary, 2nd Edition (2007)
2011	Random House Webster's College Dictionary (2005)

I. INTRODUCTION

Patent Owner Flip Phone Games, Inc. ("FPG" or "Patent Owner") submits this Response to Petitioner PLR Worldwide Sales Limited's ("Petitioner") petition for *inter partes* review ("the Petition") of U.S. Patent No. 8,688,089 ("the '089 Patent") and the Board's Institution Decision on Remand (Paper 14). The Board, on remand, instituted review of claims 1–10 (the "Challenged Claims") of the '089 Patent. Petitioner, however, has failed to carry its burden of proving unpatentability of any Challenged Claim.

None of the prior art references asserted by the Petitioner discloses each and every limitation of any Challenged Claim. Petitioner thus resorts to arguing that each Challenged Claim is rendered obvious. But for a number of limitations of the claims, Petitioner fails to provide any documentary evidence in the prior art and instead resorts to speculation, unfounded assumptions, and/or hindsight reconstruction to supply deficiencies in its factual bases. This fatal flaw in Petitioner's arguments is further demonstrated by the fact that its expert, Dr. Zagal, simply repeats Petitioner's speculative arguments on these limitations in conclusory fashion. The Federal Circuit has consistently rejected such unsupported and conclusory obviousness challenges. And the same result should follow here.

For these reasons and others discussed herein, Petitioner has failed to carry its burden, and the Board should affirm the patentability of the Challenged Claims.

II. LEVEL OF SKILL IN THE ART AND EXPERT TESTIMONY

This Patent Owner Response is supported by the expert testimony of Dr. Robert Akl (Ex. 2005), who has decades of experience in the relevant technology area. As Dr. Akl explains, a person of ordinary skill in the art ("POSITA") of the '089 Patent 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. Ex. 2005, ¶29. Alternatively, a POSITA may have additional education that might substitute for some of the experience, and additional experience might substitute for some of the educational background. *Id.*

Petitioner proposes a POSITA definition that includes a person with "an undergraduate degree in game design or development, computer science, computer engineering, or a related field, with at least two years of experience working with computer gaming systems or software application development." Petition at 12. Thus, Petitioner does not require experience in developing or programming video games, but only "working with computer gaming systems or software application development." Petition at 12. This difference does not materially affect the analysis presented below, however.

III. BACKGROUND

A. Petitioner Fails to Consider the State of the Art as of June 26, 2007, and this is Fatal to Petitioner's Analysis.

"In short, the focus when making a determination of obviousness should be on what a person of ordinary skill in the pertinent art would have known at the relevant time, and on what such a person would have reasonably expected to have been able to do in view of that knowledge." MPEP § 2141. The Federal Circuit has stated: "It is difficult but necessary that the decisionmaker forget what he or she has been taught … about the claimed invention and cast the mind back to the time the invention was made (often as here many years), to occupy the mind of one skilled in the art...." *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1553 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984).

In the case of the '089 Patent, the relevant time is its filing date, June 26, 2007. Ex. 1001 at 1. As of that date, mobile gaming technology was entirely different than it is today, for example. *See* Ex. 2005, ¶¶40–47. And the speculative leaps Petitioner and its expert take in combining or modifying the prior art references set forth in the Petition simply would not have been obvious in June 2007.

B. Mobile Gaming Technology as of the June 26, 2007, Filing Date of the '089 Patent was Entirely Different than Today

As of the filing date of the '089 Patent (June 26, 2007), the claimed inventions were both novel and non-obvious. *See* Ex. 2005, ¶¶40–47. The Petition ignores the

broader context and history of mobile gaming as of 2007 and instead adopts a hindsight-driven viewpoint to suggest that technology that was novel and non-obvious in 2007 was somehow well-known and basic simply because it was used widely thereafter, including today.

The '089 Patent describes and claims a novel and unconventional way of using mobile gaming and mobile gaming devices, involving "providing hot spots of triggered content within the gaming environment of a mobile video game on a mobile communication device," which "may prolong user interest in a game for a mobile communication device …." '089 Patent, at 1:60–2:2; *see* Ex. 2005, ¶¶33–39. The innovative mobile gaming technology described and claimed in the '089 Patent originates from mobile game developer Mobile Deluxe, which was founded in 2003 and is the precursor of FPG. Ex. 2007, ¶8. At that time, smartphones and modern online stores for smartphone app purchases ("App Stores") had not been launched, and the mobile gaming landscape was very different than it is today. Ex. 2007, ¶9; *see also* Ex. 2005, ¶¶40–47.

It was not until mid-2008—a full year after the filing date of the '089 Patent—that modern App Stores became available.[1] *See* Ex. 2005, ¶41. Before that time,

[1] *See, e.g.*, https://pickaso.com/en/2020/google-play-store-evolution ("Android's store that ... launched in 2008 under the name of Android Market, and then renamed Google Play Store."); https://www.apple.com/newsroom/2018/07/app-store-turns-10/ ("Apple introduced the App Store on July 10, 2008….");

mobile games had a very short life cycle. Ex. 2005, ¶¶42–43. Wireless carriers each managed their own individual app store or "deck," with a limited catalog of games. *Id.* Once that capacity was reached, the carrier would be forced to remove (or "sunset") older game titles to make room for new games. *Id.*

As the '089 Patent describes, "all video games tend to have a popularity life span" and, after the end of that span, "the user may stop playing that particular game in favor of others." '089 Patent, at 1:28–32; *see also* Ex. 2005, ¶36. Because of this short life cycle, carriers, developers, and publishers did not update a game during its lifetime, and there was no expectation a game would evolve. Ex. 2005, ¶42. Rather, mobile games were a one-time purchase, typically $4.99 to $9.99 each. Ex. 2005, ¶46. Instead of updating pre-existing mobile games, developers would, for example, launch a sequel to a game, which would be treated by carriers as a new title, triggering a new lifecycle for that new title. Ex. 2005, ¶¶42, 46. Indeed, the '089 Patent explains that "[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, at which point the user may stop playing that particular game in favor of others." '089 Patent, at 1:29–32; *see also* Ex. 2005, ¶36. Thus, at the time the '089 Patent was filed, mobile games had a limited life cycle, and game developers addressed loss of user interest by releasing new mobile games rather than updating existing mobile games. Ex. 2005, ¶¶40–46.

The ’089 Patent’s claims provide a unique solution to the problem in the field at the time, providing and controlling access to certain content in a mobile video game via a “hot spot,” such that “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),” for example. ’089 Patent, at 4:17–31; *see also* Ex. 2005, ¶47. This improvement was groundbreaking at the time and was far from obvious in a 2007, pre-App Store and pre-smartphone world’s static approach to mobile gaming. *See* Ex. 2005, ¶¶33–47.

C. Petitioner’s Faulty Summary of the State of the Art Relies on Materials that Are Not Prior Art, Not Raised in Any Ground, and that Confirm the Patentability of the Challenged Claims

The Petition suggests that “[g]ame developers embraced the idea of updateable games even before mobile games became popular.” Petition at 7. To support this position Petitioner, relies on unauthenticated hearsay that is not even prior art, and which, in fact, draws the exact opposite conclusion and demonstrates the novelty of the claimed invention of the ’089 Patent in June 2007.

The Petition relies on Exhibit 1015, an article purportedly published in Australia and entitled “Productive Play 2.0: The Logic of In-Game Advertising.” *See, e.g.*, Petition at 7–8. Putting aside that Petitioner does nothing to authenticate this article, it is not prior art. Indeed, it states on its face that it was published in February 2009, more than a year and half after the filing date of the ’089 Patent. *See*

Ex. 1015 at 2. Even then, the first paragraph of the article states that "suggestive events for ***the future of online gaming*** took place in the spring[2] of 2007" (Ex. 1015 at 1 (emphasis and footnote added))—confirming that, as of its June 26, 2007 filing date, the invention provided by the '089 Patent was novel.

The Petition also relies on Exhibit 1016, a thesis entitled "Advertising in Computer Games." *See, e.g.*, Petition at 8. While this thesis is stamped with the date September 28, 2006, Petitioner tellingly does not submit any evidence corroborating this date of publication or authenticating the Exhibit. Nor does Petitioner rely on Exhibit 1016 as a prior art reference. Further, as with Exhibit 1015, this thesis states in its abstract that "[t]his paper suggests advertisers should experiment with in-game advertising to gain skills that could become vital in the ***near future***." Ex. 1016 at 2 (emphasis added); *see* Ex. 2005, ¶52.

The Petition next relies on Exhibit 1017, a press release purported to be dated March 21, 2006, and entitled "In-Game Advertising Goes Mobile." *See, e.g.*, Petition at 5. As with Exhibit 1016, Petitioner submits no evidence corroborating the date of alleged publication or authenticating this Exhibit. Petitioner does not rely on Exhibit 1017 as a prior art reference. Further, as with the other exhibits, Exhibit 1017 states: "In the ***near future***, mobile in-game advertising ***will become*** increasingly attractive

[2] Spring in Australia occurs from September to November, *i.e.*, after the June 26, 2007, priority date of the '089 Patent. https://www.australia.com/en-us/facts-and-planning/when-to-go/australias-seasons.html.

for providers of mobile phones." Ex. 1017 at 1 (emphasis added). Thus, this press release does not describe prior art, but merely describes what may happen in the ***future***. *See* Ex. 2005, ¶53.

Finally, the Petition relies on Exhibit 1018, purportedly published in 2001. *See, e.g.*, Petition at 5. But again, Petitioner submits no evidence corroborating the date of alleged publication or authenticating this Exhibit. Exhibit 1018 also similarly confirms that in-game content updates, including with respect to "hot spots," were not available at the time of the claimed invention of the '089 Patent. Indeed, Exhibit 1018 describes "[t]he biggest change between the current game technologies ***and the future ones*** is that in the future it will be possible to offer also games with realtime interactivity." Ex. 1018 at 50 (emphasis added). Further, this article confirms exactly the need to address the problem that the '089 Patent in fact solved, describing that "life cycle[s] of [] certain game[s] will [be] quite short, and will be replaced by more trendy games very promptly." Ex. 1018 at 52; *see also* Ex. 2005, ¶54.

IV. CLAIM CONSTRUCTION

A. "Non-Promotional Background Object"

In the Institution Decision on Remand, the Board construed the claim phrase "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." Paper 14 at 18.

Patent Owner does not disagree with the Board's construction—which, *inter alia*, applies the ordinary and customary meaning of the term "background." *See, e.g.*, Ex. 3002 (defining "background" as "[t]he 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 (same); Ex. 3003 (defining "background" as "the scenery or ground behind something," "the part of a painting representing what lies behind objects in the foreground."); Ex. 2009 (same); Ex. 2010 (defining "background" as "the part of a picture or pattern that is behind the main people of things in it. The main person of thing is in the foreground."); Ex. 2011 (defining "background" as "the grounds or parts, as of a scene, situated in the rear (opposed to *foreground*)").

And, as correctly noted by the Board (Paper 14 at 16–18), the intrinsic evidence demonstrates that the '089 Patent uses the claim phrase "non-promotional background object" in accordance with the ordinary and customary meaning of the term "background." For example, during prosecution, the applicant amended the claims to recite that the "location in-game is represented by a non-promotional background object"—as opposed to an object in the foreground. Ex. 1002 at 80, 85.

The claims were so amended to overcome a § 103 rejection based on Lauper (U.S. Publication No. 2006/0205510) in view of Chu (U.S. Patent Application Publication No. 2006/0111979). Ex. 1002 at 83. Overcoming the rejection, the applicant explained that Chu did not disclose or suggest representing the "hot spot"

location in-game by a "non-promotional background object," as recited by the amended claims. Ex. 1002 at 84. In particular, the applicant explained that the "game objects" described in Chu (and cited by the Examiner) "are not 'non-promotional background objects' at least because they are featured in the forefront of game play as primary objects to be manipulated or used during game play." Ex. 1002 at 85. Thus, the applicant expressly distinguished the claimed "non-promotional ***background*** object" from a game object "featured in the ***forefront*** of game play." *Id.* (emphasis added); *see* Paper 14 at 14–15 (noting the prosecution history of the '089 Patent "draws a distinction between foreground and background objects").

Additionally, the applicant also amended the claims during prosecution to require that the "location in game associated with activating the hot spot" be represented by a "non-promotional" object. Ex. 1002 at 117. This amendment was in response to a § 103 rejection based on Lauper, in which the Examiner contended that Lauper disclosed "a location in-game as associated with activating the hot spot." Ex. 1002 at 121–122. For example, Lauper disclosed "advertising placards" on which advertisements are displayed in a game and which may be selected by a player to purchase components relevant to the game. Ex. 1002 at 143–44, 176.

Overcoming the rejection, and distinguishing Lauper's "advertising placards," the applicant explained that "the non-promotional object is not an ordinary or visible place for advertisement, the user does not know that the object

has a hidden hot spot, and the user does not know that activating the hidden 'hot spot' will display promotional content." Ex. 1002 at 122; *see* Paper 14 at 16–17. And later in prosecution, the applicant further explained that the claimed "non-promotional background object" "does not have an 'area' in which advertisements directly appear, but instead represents a 'hot spot' that, upon activation, causes 'hidden promotional content' to then appear. Ex. 1002 at 86; *see* Paper 14 at 16.

For all these reasons, the Board's construction of the claim phrase "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" (Paper 14 at 18) comports with both the intrinsic and extrinsic evidence of record.

B. Patentable Weight

Relatedly, the claim limitation requiring that the "location in-game associated with activating the hot spot" be "represented by a non-promotional background object" should be afforded patentable weight. '089 Patent, 14:27–29, 14:62–64; *see* Paper 14 at 19. Indeed, "[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Miller*, 441 F.2d 689, 694 (C.C.P.A. 1971) (quoting *In re Wilson*, 424 F.2d 1382, 1385 (C.C.P.A. 1970)).

In accordance with this axiomatic requirement, Petitioner recognized in the Petition that the claim phrase "non-promotional background object" was entitled to patentable weight, and Petitioner sought to demonstrate that prior art disclosed or

rendered obvious this claim limitation. *See, e.g.*, Petition at 31–33, 56–58. As discussed below, however, the prior art of record does not disclose or render obvious this limitation. *See infra* Sections V–VII. To the extent Petitioner pivots to a new argument that the claim phrase "non-promotional background object" is not entitled to patentable weight to maintain its prior art challenges, such argument fails.

As noted above, "[w]hen determining a claim's patentability, the Board must read the claim as a whole, considering each and every claim limitation." *In re Distefano*, 808 F.3d 845, 848 (Fed. Cir. 2015) (citing *In re Gulack*, 703 F.2d 1381, 1385 (Fed. Cir. 1983)). The only exception is "if a limitation claims (a) printed matter that (b) is not functionally or structurally related to the physical substrate holding the printed matter, it does not lend any patentable weight to the patentability analysis." *Id.* This "printed matter" exception does not apply here.

Historically, "printed matter" has referred to claim elements involving actual "printed" material. *IOENGINE, LLC v. Ingenico Inc.*, 100 F.4th 1395, 1404 (Fed. Cir. 2024). Indeed, the doctrine is rooted in the fundamental principle that "[t]he mere arrangement of printed matter on a sheet or sheets of paper, in book form or otherwise, does not constitute any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvements thereof." *Distefano*, 808 F.3d at 849 (quoting *In re Russell*, 18 C.C.P.A. 1184, 48 F.2d 668, 669 (1931)).

Over time, the doctrine has expanded to include mediums beyond solely printed sheets of paper. *IOENGINE*, 100 F.4th at 1404. Regardless of the medium, however, the Federal Circuit has "consistently limited the printed matter rule to matter claimed for its communicative content"—"i.e., the *content specifically being communicated*." *Distefano*, 808 F.3d at 849; *IOENGINE*, 100 F.4th at 1404. As the Federal Circuit recently explained: "Printed matter encompasses *what* is communicated—the content or information being communicated—rather than the act of a communication itself." *IOENGINE*, 100 F.4th at 1404.

Prior decisions from the Federal Circuit applying the "printed matter" exception are illustrative on this critical aspect of the exception. In *King Pharmaceuticals, Inc. v. Eon Labs, Inc.*, 616 F.3d 1267 (Fed. Cir. 2010), the Federal Circuit held that a label instructing a patient to take a drug with food was "printed matter." The claim at issue was a dependent claim. The parent independent claim recited "a method of increasing the oral bioavailability of metaxalone" by "administering to the patient a therapeutically effective amount of metaxalone in a pharmaceutical composition with food." *Id.* at 1270. The dependent claim, in short, claimed "the method of claim 1 with the additional limitation of 'informing' the patient that taking metaxalone with food will increase the drug's bioavailability." *Id.* at 1271. The Federal Circuit held the independent claim was anticipated by the prior art. *Id.* at 1278. The pertinent question was thus "whether an otherwise anticipated

method claim becomes patentable because it includes a step of 'informing' someone about the existence of an inherent property of that method." *Id.* Invoking the "printed matter" exception, the Federal Circuit held it did not. *Id.* The Federal Circuit explained that "[i]nforming a patient about the benefits of a drug in no way transforms the process of taking the drug with food." *Id.* at 1279.

Similarly, in *AstraZeneca LP v. Apotex, Inc.*, 633 F.3d 1042 (Fed. Cir. 2010), the Federal Circuit held that an FDA label providing the dosage instructions for using a medical product was printed material. The claims at issue recited two elements: "(1) a budesonide composition or suspension in a sealed container containing 0.05 mg to 15 mg budesonide and a solvent, and (2) a label indicating administration by nebulization in a continuing regimen at a frequency of not more than once per day." *Id.* at 1063. There was "no dispute that the budesonide suspension recited in the claims is known in the prior art." *Id.* at 1062. Thus, the question before the court was whether "the recitation in the claims of a label instructing not more than once-a-day dosing" is of "patentable consequence." *Id.* Applying the "printed rule" exception, the Federal Circuit held the claimed instructions were "not entitled to patentable weight." *Id.* at 1065. The Federal Circuit explained: "The instructions in no way function with the drug to create a new, unobvious product. Removing the instructions from the claimed kit does not change the ability of the drug to treat respiratory diseases." *Id.*

In contrast, in *IOENGINE*, the Federal Circuit held that the Board erred in applying the "printed matter" doctrine to accord no patentable weight to claim limitations that recite "encrypted communications." 100 F.4th at 1404. In short, the relevant claims recited facilitation of transmission of "encrypted communications" from a communications node to a terminal. *Id.* The Board determined that "the term 'encrypted communications' claims only communicative content, i.e. printed matter" because it found "nothing in the claim that requires anything beyond sending and receiving data, even if the data is in an encrypted form." *Id.* The Federal Circuit disagreed. *Id.* The Federal Circuit explained: "The fact that there is a communication itself is not content; content is what the communication actually says. Nor is the form of a communication, such as whether the communication is encrypted, considered to be content. Printed matter encompasses *what* is communicated—the content or information being communicated—rather than the act of a communication itself." *Id.* The Federal Circuit further explained that, unlike prior decisions involving "communicative content" (such as "medical instructions"), "the encrypted communications here are not being claimed for any content that they are communicating." *Id.* at 1405. As such, "the claimed 'encrypted communications' do not constitute printed matter." *Id.* "To conclude otherwise would impermissibly expand the printed matter doctrine far beyond its current scope." *Id.*

Additionally, in *Distefano*, the Federal Circuit held that the "printed matter" doctrine did not apply to "web assets" in a patent claim. 808 F.3d at 851. The claim at issue recited a method for designing an electronic document via a particular user interface. *Id.* at 847. The method claim recited use of "web assets," which the patent described as digital art, background images, textures, etc. *Id.* The Board determined the claim limitation relating to these "web assets" should not be afforded patentable weight under the printed matter doctrine, and thereby concluded the claim was invalid as anticipated. *Id.* at 848. The Federal Circuit vacated the Board's findings, noting that the Board erred in its invocation of the printed matter doctrine. *Id.* at 851. The Federal Circuit explained that "printed matter must be matter claimed for what it communicates." *Id.* at 850. And, "[a]lthough the selected web assets can and likely do communicate some information, the content of the information is not claimed." *Id.* at 851. The printed matter doctrine thus did not apply. *See id.*

Similar to the "web assets" in *Distefano* and the "encrypted communications" in *IOENGINE*, the claimed "non-promotional background object" in the Challenged Claims of the '089 Patent is not being claimed for any communicative content (*e.g.*, instructions on use). Rather, the "location in-game associated with activating the hot spot … represented by a non-promotional background object" is a required component of the "hot spot information" to be uploaded to a mobile communication device from a server. '089 Patent, 14:16–34, 14:48–67. As such, the "printed matter"

exception does not apply. *IOENGINE*, 100 F.4th at 1404–05; *Distefano*, 808 F.3d at 848–51. "To conclude otherwise would impermissibly expand the printed matter doctrine far beyond its current scope." *IOENGINE*, 100 F.4th at 1405

Moreover, even if the Board were to find that the claimed "non-promotional background object" is being claimed for some type of communicative content, the "printed matter" exception would still not apply because the "non-promotional background object" has a functional and structural relationship to the fundamentally claimed "hot spot" in the mobile video game. *See Distefano*, 808 F.3d at 850 ("Printed matter is given [patentable] weight if the claimed informational content has a functional or structural relationship to the substrate."). As expressly stated in the claims, the "non-promotional background object" is the "location in-game associated with activating the hot spot." '089 Patent, 14:27–29, 14:62–64. Further, the applicant relied on this relationship of the "non-promotional background object" to the claimed "hot spot" to distinguish prior art during prosecution, as discussed above. *See supra* Section IV.A (citing Ex. 1002 at 80–85).

For all these reasons, the claim limitation requiring that the "location in-game associated with activating the hot spot" be "represented by a non-promotional background object" should be afforded patentable weight. *See Distefano*, 808 F.3d at 848; *Miller*, 441 F.2d at 694.

V. GROUND 1: HO, IN VIEW OF JIAU AND CHOI, DOES NOT RENDER OBVIOUS CLAIMS 1–3 AND 6–8

A. Ho, in view of Jiau and/or Choi, Does Not Render Obvious "A Location In-Game Associated with Activating the Hot Spot, Wherein the Location In-Game is Represented by a Non-Promotional Background Object" (Claim 1(d)(i))

Claim 1 recites that the claimed "hot spot" information uploaded to the mobile communication device comprises "a location in-game associated with activating the hot spot, wherein the location in-game is represented by a non-promotional background object." '089 Patent, 14:27–29. As previously found by the Board (Paper 14 at 47–52), the Petition fails to demonstrate that Ho, whether alone or in view of Jiau and/or Choi, discloses or renders obvious this limitation.

i. Ho Does Not Disclose or Suggest "A Location In-Game Associated with Activating the Hot Spot, Wherein the Location In-Game is Represented by a Non-Promotional Background Object"

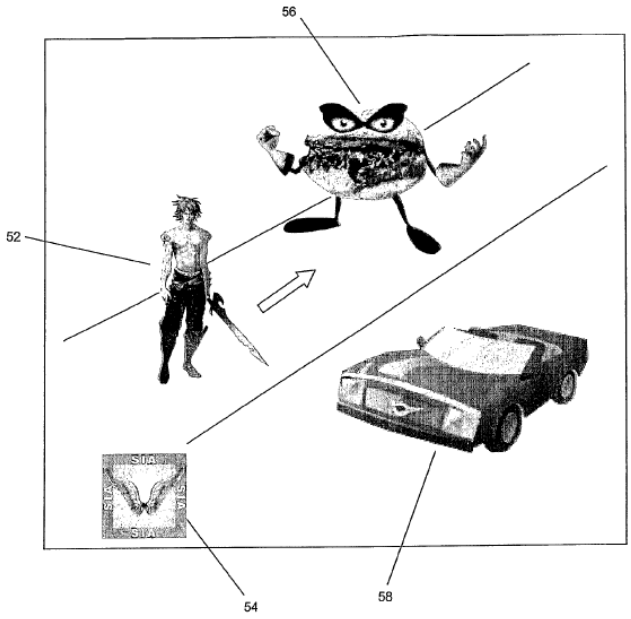
Fundamentally, Ho itself fails to disclose "a location in-game associated with activating the hot spot, wherein the location in-game is represented by a non-promotional ***background*** object," as recited by claim 1 of the '089 Patent.

The Petition points to Ho's "interactive information element(s)" as allegedly meeting the claimed "hot spot" in this claim limitation. *See, e.g.*, Petition at 31. Ho describes that its "interactive information element" may be "an icon in the game, a character in the game or an item in the game." Ex. 1004 at 4:28–29. And Figure 3 of Ho illustrates examples of Ho's "interactive information elements," such as

"character 52," "wings button 54," "hamburger monster 56," and "car 58." Ex. 1004 at 5:1–5, Fig. 3. Ho describes that, when a player engages an "interactive information element," an action may be "activated," such as an "on-screen presentation" within the gameplay. Ex. 1004 at 5:27–38.

Critically, however, Petitioner has failed to demonstrate that Ho's "interactive information elements" are "non-promotional ***background*** objects." The Petition fails to analyze Ho's disclosure in view of the ordinary and customary meaning of the term "background"—let alone the Board's construction of "non-promotional background object" based on the same. Paper 14 at 18 (construing claim term to mean "an object that is not in the foreground and does not display a promotional message unless a hot spot is activated").

In particular—and as previously found by the Board—Petitioner fails to demonstrate that Ho's "interactive information elements" are "not in the foreground." Paper 14 at 49. In fact, Ho's "interactive information elements" illustrated in Figure 3 of Ho (reproduced below) are shown in the foreground of Ho's game, as previously noted by the Board. Ex. 1004 at Fig. 3; *see* Ex. 2005, ¶60; *see also* Paper 14 at 50 ("Figure 3 [] is an example of the embodiment of Ho showing a wings button, car, and hamburger monster in the foreground.").



Figures 6–8 of Ho also show "interactive information elements" in the foreground of Ho's game. Ex. 1004 at 4:29–34, Fig. 6 (interactive information element 206); Ex. 1004 at 4:34–36, Fig. 7 (interactive information element 212); Ex. 1004 at 4:36–39, Fig. 8 (interactive information element 218); *see* Ex. 2005, ¶¶61–63.

Relatedly, Ho describes its "interactive information elements" are game elements that a user is prominently presented with and encouraged to engage and interact with (*see, e.g.*, Ex. 1004 at 4:22–29)—not "background" objects. *See* Ex. 2005, ¶¶59, 64. Specifically, Ho describes that, "[i]n the course of gameplay," a player is presented "an option to engage the at least one interactive information element," such as "a hamburger monster 56." Ex. 1004 at 4:22–23, 5:1–5.

Further, Ho's "interactive information elements" are akin to the "game component[s]" of Chu, which the applicant distinguished in prosecution as not

"background" objects. Ex. 1002 at 85. As the applicant explained during prosecution, the "game component[s]" described in Chu—*e.g.*, "game character"; "weapon"; "equipment"; "treasure chest"—"are not 'non-promotional background objects' at least because they are featured in the forefront of game play as primary objects to be manipulated or used during game play." Ex. 1002 at 85. Ho's "interactive information elements" are not "non-promotional background objects" for the same reasons. They are featured game components (*e.g.*, "wings button 54," "hamburger monster 56," or "car 58") presented in the foreground to be manipulated by a user during game play. *See, e.g.*, Ex. 1004 at 4:22–29, 5:1–5, Fig. 3.

Faced with these facts, Petitioner resorts to arguing that Ho's "interactive information elements" may nonetheless be considered "non-promotional background objects" because (i) "engagement of the at least one interactive information element may be not mandatory for the continuation of gameplay" ("*i.e.*, it is not needed or required in order to play the game"); and (ii) "activating the interactive element 'does not disrupt gameplay' (*i.e.*, it is outside the primary focus of gameplay)." Petition at 31–32 (citing Ex. 1004 at 4:26–28, 5:30–33, 5:36–38).

Each of Petitioner's arguments fails, including for the reasons previously noted by the Board. *See* Paper 14 at 48–51.

First, Ho's suggestion that engagement of its interactive information elements "may be not mandatory for the continuation of gameplay" (Ex. 1004 at 4:26–28)

does nothing to suggest that Ho's interactive information elements are "background" objects. *See* Paper 14 at 49. And Petitioner's cursory suggestion that an interpretation of "non-promotional background object" as merely any optional game component is "consistent with the Applicant's description of a 'background' object during prosecution" (Petition at 31–32) is incorrect. As discussed, during prosecution, the applicant explained that the "game objects" described in Chu "are not 'non-promotional background objects' … because they are featured in the ***forefront*** of game play as primary objects to be manipulated or used during game play." Ex. 1002 at 85 (emphasis added).

The conclusory testimony of Petitioner's expert, Dr. Zagal, which merely repeats Petitioner's argument—and thus is entitled little to no weight—does not demonstrate otherwise. Ex. 1003, ¶122 ("Ho's interactive information elements are also consistent with the Applicant's description of "background" objects because … 'engagement of the at least one interactive information element may not be mandatory for the continuation of gameplay," (not needed or required in order to play the game) …"); *see MarkForged Inc. v. Continuous Composites, Inc*., IPR2022-01431, Paper 7, at 14 (P.T.A.B. Jan. 18, 2023) ("*MarkForged*") ("[Expert's] declaration testimony … is entitled to little to no weight as it merely parrots the Petition."); *Xerox Corp. v. Bytemark, Inc*., IPR2022-00624, Paper 9, at 15 (P.T.A.B. Aug. 24, 2022) (precedential) ("*Xerox*") ("[The expert] 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.").

Second, Ho's teaching that an advertisement "sub-screen" shown upon activation of Ho's "interactive information elements" may be "overlaid on the game environment and may not be disruptive to gameplay" (Ex. 1004 at 5:35–38) likewise does nothing to suggest that Ho's interactive information elements are "background" objects. *See* Paper 14 at 50–51. As previously noted by the Board, this teaching by Ho regarding display of an advertisement "is not about the interactive information element" itself and, in any event, fails to disclose or even suggest that the "interactive information element" that was activated to display the advertisement "is in the background" of Ho's game. Paper 14 at 50–51; *see also* Ex. 2005, ¶¶59–64.

And Petitioner's cursory suggestion that an interpretation of "non-promotional background object" as merely a game component that may be activated in a manner that "does not disrupt gameplay" is "consistent with the Applicant's description of a 'background' object during prosecution" (Petition at 31–32) is incorrect. As discussed, during prosecution, the applicant explained that the "game objects" described in Chu "are featured in the ***forefront*** of game play as primary objects to be manipulated or used during game play" and thus are not "non-

promotional background objects," which "exist in the background, outside of the primary focus of game play." Ex. 1002 at 85 (emphasis added).

And, once again, the conclusory testimony of Petitioner's expert, Dr. Zagal, which merely repeats Petitioner's argument—and thus is entitled little to no weight—does not demonstrate otherwise. Ex. 1003, ¶122; *see MarkForged*, at 14 ("[Expert's] declaration testimony … is entitled to little to no weight as it merely parrots the Petition."); *Xerox*, at 15; *see also* Paper 14 at 51.

ii. Jiau Does Not Disclose or Suggest "A Location In-Game Associated with Activating the Hot Spot, Wherein the Location In-Game is Represented by a Non-Promotional Background Object"

Petitioner's resort to Jiau to cure Ho's deficiencies with respect to this claim limitation is unavailing. Petition at 32. Jiau also fails to disclose "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 by claim 1 of the '089 Patent.

The Petition suggests Jiau's "hotspace" is an "in-game location" that "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." Petition at 32 (citing Ex. 1005 at 15:4–8, 16:29–17:1, 17:1–6, Fig. 11(d)). The Petitioner further states that a "hotspace" "may … have an object located therein" and, as such, "[i]t would have been obvious to a POSITA … 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 a pass-through.'" Petition at 32 (citing Ex. 1005 at 11:18–20, 11:29–31, 15:32–16:2).

But, as its name indicates, and as the Board previously found, Jiau's "hotspace" is not a "background object." *See* Ex. 2005, ¶67; *see also* Paper 14 at 52 ("[A] hotspace is not an object"). Rather, Jiau's "hotspace" is "a predetermined space surrounding an object." Ex. 1005 at 16:29–17:1; *see* Paper 14 at 52. And, during prosecution, the applicant distinguished the claimed "background object" from similar spatial "areas" described in Chu ("any region mapped to any two or three-dimensional coordinate system bounded by the spatial dimensions of the described space"). Ex. 1002 at 85–86.

Further, Jiau expressly distinguishes "hotspaces" from Jiau's "hotspots," which are associated with "objects" in Jiau.[3] *See* Ex. 2005, ¶67. Jiau states: "Objects can have predetermined 'hotspots' that cause actions to occur when the user touches or selects the object. For example, when the user touches or selects an object, a pop-up advertisement may appear. ***In contrast***, a 'hotspace' is a predetermined ***space*** surrounding an object." Ex. 1005 at 16:29–17 (emphasis added).

[3] The Petition does not advance any specific theory as to how and why Jiau's disclosures regarding "hotspots"—as opposed to "hotspaces"—disclose or render obvious the "non-promotional background object" limitation of claim 1 of the '089 Patent. *See* Petition at 32–33; *see also* Paper 14 at 51 (noting Petitioner's arguments regarding this limitation "focus on Jiau's hotspaces"). This is not surprising, given there is no disclosure or suggestion in Jiau that its "hotspots" are associated with "background objects." *See* Ex. 2005, ¶69.

Moreover, Jiau describes that a user activates a "hotspace" by moving within a certain distance of the "hotspace"—as opposed to interacting with any object in that space. *See, e.g.*, Ex. 1005 at 17:1–4 ("[W]hen a user walks within ten virtual feet of a hotspace, a pop-up advertisement may appear."); *see* Ex. 2005, ¶68; *see also* Paper 14 at 52. In contrast, the claim language of the '089 Patent requires that the "location in-game associated with activating the hot spot" must be "represented by a non-promotional background ***object***." '089 Patent, 14:27–29 (emphasis added).

Petitioner's suggestion that Jiau's "hotspaces" disclose or render obvious this limitation simply because Jiau notes that a "hotspace" may "have an object located therein" (Petition at 32) thus falls flat. Even if the space defining a "hotspace" includes an object within its "two or three-dimensioned area[]" of Jiau's virtual world (Ex. 1005 at Abstract), Jiau makes clear that activation of the "hotspace" is not tied to any such object. Ex. 1005 at 17:1–4 ("[W]hen a user walks within ten virtual feet of a hotspace, a pop-up advertisement may appear."); *see* Ex. 2005, ¶68.

Moreover, Petitioner fails to demonstrate that any "object" potentially included in a "hotspace" of Jiau is a "non-promotional background object." *See* Petition at 32; *see also* Paper 14 at 52. At most, the Petition suggests only that the region defined by a "hotspace" may contain "one or several types of background objects, disclosed by Jiau, such as a 'solid object' or an 'object with pass-through.'" Petition at 32 (citing Ex. 1005 at 11:18–20, 11:29–31). But, as noted by the Board,

Petitioner does not offer any explanation as to how a "solid object" or an "object with pass-through" is a background object, let alone a "non-promotional background object." Paper 14 at 52.

And, in fact, in Figure 11(d) of Jiau (reproduced below)—which is cited by the Petitioner in support of its argument (Petition at 32)—the exemplified "objects" include signs containing advertisements (*e.g.*, "Buy Brand Y") that are positioned in the ***forefront*** of the environment. Ex. 2005, ¶70; Ex. 1005 at 15:3–17, Fig. 11(d). The space or region surrounding each of those objects (*i.e.*, any "hotspace") would thus likewise be in the foreground. Ex. 2005, ¶71; *see* Paper 14 at 52 (noting that "it is unclear why the space surrounding an object is not in the foreground").

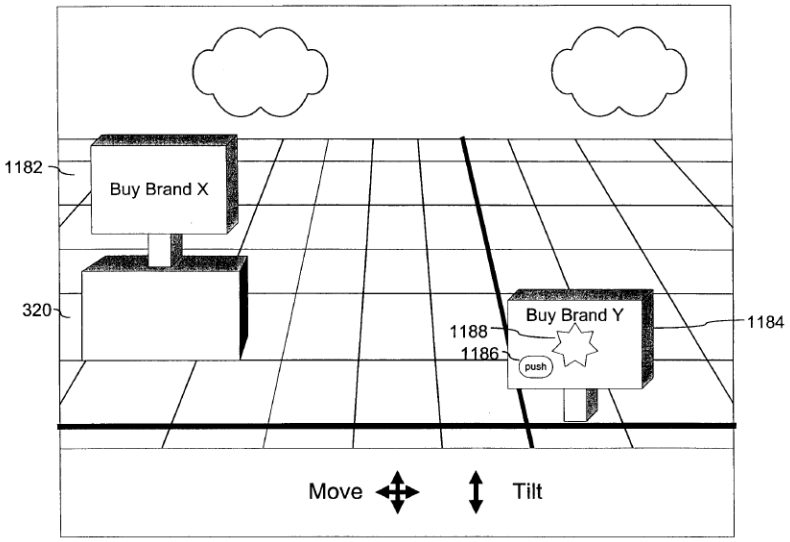


Fig. 11(d)

The conclusory testimony of Petitioner's expert, Dr. Zagal, which merely repeats Petitioner's arguments regarding Jiau's "hotspaces"—and thus is entitled little to no weight—does not demonstrate otherwise. Ex. 1003, ¶124; *see*

MarkForged, at 14 ("[Expert's] declaration testimony … is entitled to little to no weight as it merely parrots the Petition."); *Xerox*, at 15; *see also* Paper 14 at 52.

At most, Dr. Zagal suggests only that a "solid object" or "object with pass-through" in Jiau might be "considered part of the background" because it has "no links and no other associated activation," and might further "be located in the region of a different object's hotspace." Ex. 1003, ¶124 (emphasis added). Such a broad interpretation of "background" effectively renders the claim term meaningless, and, in any event, is inconsistent with the Board's analysis regarding the term. *See* Paper 14 at 15–18. Further, even in this speculative design, Dr. Zagal ignores that the "different object's hotspace" is activated by a user moving within a certain distance of the "hotspace"—as opposed to interacting with any speculative "background" object in that space. *See, e.g.*, Ex. 1005 at 17:1–4 ("[W]hen a user walks within ten virtual feet of a hotspace, a pop-up advertisement may appear."); *see* Ex. 2005, ¶68; *see also* Paper 14 at 52. Accordingly, the Board itself has (appropriately) already questioned whether Dr. Zagal's testimony on this topic "is sufficiently persuasive." Paper 14 at 52.

For all these reasons, the Petition fails to demonstrate that Ho, whether alone or in view of Jiau and/or Choi,[4] discloses or renders obvious "a location in-game

[4] The Petition never relies on Choi to cure the deficiencies in Ho and Jiau with respect to this limitation. *See* Petition at 29–33.

associated with activating the hot spot, wherein the location in-game is represented by a non-promotional background object." And, as such, the Petition fails to demonstrate that Ho, whether alone or in view of Jiau and/or Choi, renders obvious claim 1 of the '089 Patent.

B. Ho, in view of Jiau and/or Choi, Does Not Render Obvious Dependent Claims 2–3

Because Ho, in view of Jiau and/or Choi, does not render independent claim 1 obvious (*supra* Section V.A), Ho, in view of Jiau and/or Choi, does not render obvious any of dependent claims 2–3.

Dependent Claim 3: Dependent claim 3 is also not obvious for independent reasons. Dependent claim 3 requires that "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." With respect to this claim limitation, the entirety of the Petition's analysis is as follows:

> Choi discloses selection of targeted advertisements for delivery to a player, including "location-specific advertising content" based on a user's "GPS location information," such that advertising content is selected based on whether the user is within the designated location associated with that content (i.e., based on the user's proximity to the designated physical location related to that advertising content). Ex. 1008, [0043].

Petition at 36. Thus, the Petition wholly fails to address whether the purported hidden promotional content in Choi 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.

Nor could the Petition do so, as this is not disclosed in the lone cited paragraph of Choi, which instead describes only that "the Ad Manager module can use GPS location information to request location-specific advertising content from the network server." Ex. 1008, [0043]. But this is irrelevant to whether content is "***pre-selected***," as the claim requires. Further, there is no description at all that this content is "based on the proximity of the mobile communication device to a physical location related to the hidden promotional content." Simply put the Petition does not address the claim language, and even if it did, it could not establish that the cited portion of the reference meets the claim.

Further, Petitioner's expert, Dr. Zagal, again does nothing to support a conclusion of obviousness. Instead, he just parrots the Petition's conclusory assertions. *Compare* Petition at 36 ("advertising content is selected based on whether the user is within the designated location associated with that content (i.e., based on the user's proximity to the designated physical location related to that advertising content).") *with* Ex. 1003 at ¶131 ("advertising content would be selected based on the proximity of the user's mobile device to a physical location related to that advertisement (i.e., based on the user's proximity to the physical location associated with the location-specific advertising content)."). Dr. Zagal's conclusory testimony

should be thus afforded little to no weight and is not sufficient to carry Petitioner's burden. *See MarkForged*, at 14; *Xerox*, at 15. Thus, the Petition cannot carry its burden with respect to dependent claim 3.

C. Ho, in view of Jiau and/or Choi, Does Not Render Obvious "A Location In-Game Associated with Activating the Hot Spot, Wherein the Location In-Game is Represented by a Non-Promotional Background Object" (Claim 6(e)(i))

For the same reasons as discussed above with respect to claim limitation 1(d)(i), Petitioner has failed to carry its burden of demonstrating that Ho, in view of Jiau and/or Choi, discloses or renders obvious sending "hot spot information" from a server to a mobile communication device comprising "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 by claim 6 of the '089 Patent. *See* Petition at 39 (Petitioner contending limitation 6(e)(i) is rendered obvious by "Ho and/or Jiau for the reasons set forth above" with respect to limitation 1(d)(i)).

D. Ho, in view of Jiau and/or Choi, Does Not Render Obvious Dependent Claims 7–8

Because Ho, in view of Jiau and/or Choi, does not render independent claim 6 obvious (*supra* Section V.C), Ho, in view of Jiau and/or Choi, does not render obvious any of dependent claims 7–8.

Dependent Claim 7: Dependent claim 7 is also not obvious for independent reasons. The Petition's analysis for claim 7 simply refers back to its (deficient)

analysis of claim 3, which, as discussed above, does not carry Petitioner's burden of establishing obviousness. *See supra* Section V.B.

Dependent Claim 8: Dependent claim 8 is also not obvious for independent reasons. Dependent claim 8 requires that "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."

The Petition relies solely upon Choi with respect to this limitation and urges that "Choi teaches two ways in which user information—including the model type of the user's mobile device and the service provider associated with the mobile device—may be used to pre-select ***advertising content*** to send to a particular user." Petition at 40 (emphasis added). But even if this were correct, it does not meet the claim element, which requires "***the hot spot information*** is pre-selected…."

Independent claim 6—from which dependent claim 8 depends—expressly recites that the claimed "hot spot information" includes both [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 [ii] "hidden promotional content for presenting to the user, within a gaming environment of the mobile video game, when the hot spot is activated." '089 Patent, 14:62–67. The Petitioner, in contrast, fails to address how Choi discloses or renders obvious the server pre-selecting the "location

in-game associated with activating the hot spot, wherein the location in-game is represented by a non-promotional background object" (of the claimed "hot spot information") based on the factors recited in dependent claim 8. *See* Petition at 40–41. Thus, the Petition necessarily fails as to this claim.

Indeed, the paragraphs of Choi relied upon by the Petition all relate to "ad targeting" and thus, at most, simply addresses selection of "promotional content for presenting to the user." Ex. 1008, [0083], [0086], [0089]–[0090]; *see* Petition at 40–41. None of these cited paragraphs of Choi address selecting the "location in-game associated with activating the hot spot" (or the associated "non-promotional background object"), as required by dependent claim 8.

Further, as with the other claim elements discussed above, Dr. Zagal does nothing to support a conclusion of obviousness. Instead, he just parrots the Petition's conclusory assertions. *Compare* Petition at 40–41 *with* Ex. 1003, ¶142. Dr. Zagal's conclusory testimony should be thus afforded little to no weight and is not sufficient to carry Petitioner's burden. *See MarkForged*, at 14; *Xerox*, at 15. Thus, the Petition cannot carry its burden with respect to dependent claim 8.

VI. GROUND 2: HO, IN VIEW OF JIAU, CHOI, AND ELLIS DOES NOT RENDER OBVIOUS CLAIMS 4–5 AND 9–10

Because Ho, in view of Jiau and/or Choi, does not render obvious independent claim 1 (*supra* Section V.A) or independent claim 6 (*supra* Section V.C), Ho, in view of Jiau, Choi, and/or Ellis, does not render obvious any of dependent claims 4–

5 or 9–10, respectively. Indeed, the Petition fails to contend that Ellis cures any of the Petition's failures with respect to the challenges to independent claim 1 and independent claim 6 based on Ho, in view of Jiau and/or Choi.

VII. GROUND 3: STURMAN, IN VIEW OF HO, DOES NOT RENDER OBVIOUS CLAIMS 1–10

A. Sturman, in view of Ho, Does Not Render Obvious the Claimed "Hot Spot Information" and "Hot Spot" (Claim 1(a)–1(e))

Claim 1 recites "[a] method for providing a hot spot associated with a mobile video game" comprising, *inter alia*, "uploading [] hot spot information to the mobile communication device," wherein the "hot spot information" includes "a location in-game associated with activating the hot spot …; and hidden promotional content for presenting to the user, within a gaming environment of the mobile video game, when the hot spot is activated." '089 Patent, 14:16–34. The Petition fails to demonstrate that Sturman, whether alone or in view of Ho, renders obvious these "hot spot information" and "hot spot" limitations.

i. Sturman Does Not Disclose "Hot Spot Information" or a "Hot Spot"

Fundamentally, Sturman itself fails to disclose or render obvious the "hot spot information" or "hot spot" recited by claim 1 of the '089 Patent. The Petition, at most, only vaguely suggests that Sturman's "advertisements" displayed within a game at an "ad unit" somehow teach both the claimed "hot spot information" and claimed "hot spot." Petition at 53; *see* Petition at 54 ("To the extent Patent Owner

argues that [sic] that Sturman's advertisements are not considered to be hot spots ….''). Sturman describes these "ad units" 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." Ex. 1006, [0019].

Sturman's "advertisements" and/or "ad units," however, do not disclose or render obvious the claimed "hot spot information" or "hot spot." Indeed, Petitioner's own expert, Dr. Zagal, concedes "Sturman does not expressly describe its ads as containing 'hot spots' as the '089 Patent uses that term." Ex. 1003, ¶163. This is because Sturman nowhere discloses or teaches that the "advertisements" displayed at Sturman's "ad units" are "hidden" and only displayed after activating a "hot spot." Ex. 2005, ¶77; *see generally* Ex. 1006. The Petition itself also concedes as much, acknowledging that "Sturman does not expressly teach that promotional content is 'hidden' and only displayed when a hot spot is activated." Petition at 58.

At most, the Petition notes only that Sturman states that an "ad unit" may be "interactive," which Petitioner suggests means that the ad unit "may be interacted with/activated." Petition at 57 (citing Ex. 1006, [0020]). And Petitioner's expert, Dr. Zagal, similarly states: "A POSITA 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.

Critically, however, Dr. Zagal's speculative testimony is not supported by any evidence or analysis. *See* Ex. 1003, ¶175. Rather, it is purely conclusory. And the Federal Circuit has consistently "rejected obviousness determinations based on conclusory and unsupported expert testimony," noting that "crediting such testimony risks allowing the challenger to use the challenged patent as a roadmap to reconstruct the claimed invention using disparate elements from the prior art—i.e., the impermissible *ex post* reasoning and hindsight bias that *KSR* warned against." *TQ Delta, LLC v. Cisco Sys., Inc.*, 942 F.3d 1352, 1361 (Fed. Cir. 2019). A petitioner must, instead, supply the factual basis for the challenge and may not "resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in its factual basis." *In re Warner*, 379 F.2d 1011, 1017 (C.C.P.A. 1967).

The Board "cannot accept" Dr. Zagal's unsupported general speculation "as a replacement for documentary evidence for core factual findings in a determination of patentability." *K/S Himpp v. Hear-Wear Techs., LLC*, 751 F.3d 1362, 1366 (Fed. Cir. 2014); *see also Xerox*, at 15 ("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.").

This is especially true here, as Sturman contradicts Dr. Zagal's speculative conclusion regarding how a POSITA would understand Sturman's mention of an "interactive" ad unit. When Sturman notes that an ad unit "may be interactive within the game context," Sturman provides an immediate example of such an "interactive" ad unit: "a game character eating a brand name energy bar to boost her power in the game." Ex. 1006, [0020]. Thus, Sturman describes an ad unit as "interactive" in the sense that a game character may be able to interact with or utilize the ad unit within the game to progress in the game environment. *Id.*; *see* Ex. 2005, ¶80. 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, contrary to Dr. Zagal's conclusory speculation. Ex. 2005, ¶80.

ii. A POSITA Would Not Have Been Motivated to Modify Sturman's "Ad Units" in view of Ho's "Interactive Information Elements"

Inherently recognizing that Sturman itself fails to disclose or render obvious the "hot spot information" or "hot spot" recited by claim 1 of the '089 Patent, Petitioner contends that a POSITA would have been motivated to apply Ho's teachings regarding Ho's "interactive information elements" to Sturman's "ad units" to thereby allegedly meet the "hot spot information" and "hot spot" limitations of claim 1 of the '089 Patent. *See* Petition at 53–59.

Petitioner's proposed modification relies upon Sturman to "provide the basic features of an advertisement delivery system for mobile video games, where a server delivers targeted advertisements in response to requests from mobile devices and each advertisement is matched to a specific in-game location." Petition at 49. And the Petition attempts to modify this disclosure—based on Ho—"to make Sturman's advertisements interactive, such that they are provided as a hot spot corresponding to an in-game character or object." *Id*. But, as a threshold matter, the Petitioner offers no sufficient motivation for why a POSITA would so modify Sturman based on Ho.

Petitioner's obviousness challenge is fundamentally based on Petitioner's urging that Sturman and Ho are "directed to the same types of improvements in game design and monetization." Petition at 51. But the Petition tacitly acknowledges that the two references are materially different. *See* Petition at 13–15, 48–49. And, moreover, simply being in the same general area is not sufficient to establish a motivation to combine two references. Indeed, merely asserting that references are drawn from the same field of art is "simply too conclusory" to show that a POSITA would have combined the references in the way of the claimed invention. *Securus Techs., Inc. v. Glob. Tel*Link Corp.*, 701 F. App'x 971, 976 (Fed. Cir. 2017); *see also Microsoft Corp. v. Enfish, LLC*, 662 F. App'x 981, 990 (Fed. Cir. 2016) (determining that "the Board correctly concluded" that a petitioner "did not

articulate a sufficient motivation to combine" where the only reason given was "that the references were directed to the same art or same techniques").

Beyond Petitioner's (legally insufficient) conclusory assertion regarding "analogous art," Petitioner asserts that a POSITA would have been motivated to modify Sturman in view of Ho ***solely*** because "Ho teaches specific improvements that are complementary to Sturman's teachings and further improve the effectiveness of Sturman's in-game ads." Petition at 51. In particular, the Petition relies on improving Sturman to address its "passive/non-interactive elements, such as 'billboards, storefront signs, panel trucks, Jumbotron screens … [and] posters on walls.'" Petition at 51. The Petition contends that Ho teaches its "interactive information elements," which "provide interactive in-game advertisements" in Ho's game, are "more engaging to players." Petition at 52. And, as such, the Petition contends that a POSITA would have modified Sturman's "ad units" such that the advertisements associated therewith are "not displayed initially" and, instead, "only presented when the player interacts with the [ad unit]." Petition at 53.

But Ho's "interactive information elements" are not, in fact, "complementary" to Sturman's advertisement delivery scheme. *See* Ex. 2005, ¶¶82–86. Rather, Ho's "interactive information elements" would be inconsistent with Sturman's invention and corresponding goals. *See* Ex. 2005, ¶¶82–86. In particular, the Petition proposes modifying Sturman to make Sturman's advertisement(s) appear "only when a player

interacts with [a] hot spot location." Petition at 50. But this is diametrically opposed to the stated purpose of Sturman. *See* Ex. 2005, ¶¶82–86.

Sturman is directed to a centralized "advertisement server" and "advertisement delivery scheme" that allows advertisers to provide "advertisements for multiple video games without advertisers having to specify specific game titles in which they would like their advertisements placed." Ex. 1006, Abstract. The intent of Sturman's multi-game "advertisement delivery scheme" is to facilitate advertisers to "reach" a desired target audience "across numerous game titles" "substantially ***simultaneously***." Ex. 1006, [0018] (emphasis added); *see* Ex. 1006, [0024] (noting Sturman's advertisement delivery scheme allows advertisers to reach "a gaming audience in aggregate – enabling them to each large audience of 'quick reach' over a short time."). "For example, through the advertising delivery scheme, advertisers can reach ***millions of game players in a single night***." Ex. 1006, [0024] (emphasis added). Sturman thereby allows advertisers to meet specific "ad campaign needs (e.g., reach 1 million men ages 18-34 at 8 p.m. on Thursdays)." Ex. 1006, [0018].

In addition, Sturman expressly describes targeting game players at specific time windows, including the granularity of targeting viewership at a specific "time of day (e.g., deliver advertising to all gaming devices playing at ***8 p.m. on Thursday***) or by game play date (e.g., once the game has been played for 45 minutes - air the Domino's ad campaign, or in the fourth inning of the sports title, air the XYC

campaign).” Ex. 1006, [0023] (emphasis added); *see also id*., [0024] (“Advertisers can also take advantage of the dynamic nature of the advertisement delivery scheme to run time-based advertisement campaigns based on seasons, specific days (e.g., only on Sundays), specific dates (e.g., the day before Valentine's Day), specific times of day (between 6 and 9 p.m.), or events (e.g., scheduled multiplayer game tournaments, movie releases, etc.).”); [0027] (“it may be possible to provide real time content in a game, such as NFL scores, weather information …”).

In view of these express goals of Sturman’s advertisement delivery scheme, a POSITA would ***not*** have been motivated to modify Sturman’s “ad units” such that the advertisements associated therewith are “not displayed initially” and, instead, “only presented” at some later, varied, and unspecified times (if at all)—across multiple game titles—*i.e.*, when a respective player activates the otherwise hidden advertisement in Sturman’s ad unit. Ex. 2005, ¶¶82–86; *see* Petition at 53. Indeed, a modification wherein, as the Petition urges, “the advertisement appear[s] only when a player interacts with the hot spot location” (Petition at 50), would frustrate, if not outright preclude the stated goals of Sturman’s system. *See, e.g*., Ex. 1006, [0018] (describing an advertiser reaching a desired audience “substantially simultaneously” across multiple game titles with an advertisement to meet “ad campaign needs (e.g., reach 1 million men ages 18-34 at 8 p.m. on Thursdays).”); *see* Ex. 2005, ¶¶82–86.

As such, a POSITA would not have been motivated to modify Sturman's "ad units" in view of Ho's "interactive information elements," as proposed by the Petition, so as to delay—if not potentially altogether preclude—the display of advertisements disseminated by Sturman's advertisement server. Ex. 2005, ¶¶82–86; *see In re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984) (rejecting proposed modification that would render primary reference "inoperable for its intended purpose"); *In re Ratti*, 270 F.2d 810, 813 (C.C.P.A. 1959) (rejecting "suggested combination of references" that "would require … a change in the basic principles under which the [primary reference] was designed to operate"); MPEP § 2143.01 ("If [the] proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification."); *see also* Petition at 53 (suggesting Sturman be modified "such that the advertisement is not displayed initially and is only presented when the player interacts with the displayed in-game location").

Sturman's disclosure that some of its "ad units" may be "interactive" does not demonstrate otherwise, contrary to Petitioner's vague suggestion. Petition at 53. As discussed above, when Sturman notes that an ad unit "may be interactive within the game context," Sturman provides an immediate example of such an "interactive" ad unit: "a game character eating a brand name energy bar to boost her power in the game." Ex. 1006, [0020]. Thus, Sturman describes an ad unit as "interactive" in the

sense that a game character may be able to interact with or utilize the ad unit within the game to progress in the game environment. *Id.*; *see* Ex. 2005, ¶80.

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. Ex. 2005, ¶80. Indeed, that would be directly contrary to the intent and goal of Sturman's advertising delivery scheme, as discussed above. And, in fact, Sturman's "interactive" teaching demonstrates that Sturman itself already contemplated a manner of making its in-game advertisements "more engaging to players" (Petition at 52) different from the manner taught in Ho, which again is not compatible with the goal of Sturman's invention.

The "testimony" of Petitioner's expert, Dr. Zagal, fails to demonstrate any sufficient motivation to combine Sturman and Ho for all these same reasons. *See* Ex. 1003, ¶¶156–160. Dr. Zagal's testimony largely just parrots the assertions made by Petitioner in the Petition. *Compare* Petition at 50–53 *with* Ex. 1003, ¶¶156–160. And is thus entitled little to no weight. *See MarkForged*, at 14 ("[Expert's] declaration testimony … is entitled to little to no weight as it merely parrots the Petition."); *Xerox*, at 15. Moreover, Dr. Zagal fails to account for the fact that modification of Sturman's ad units in view of Ho's "interactive information elements" would be

inconsistent with Sturman's invention and corresponding goals, as discussed above. *See* Ex. 2005, ¶¶82–86.

B. Sturman, in view of Ho, Does Not Render Obvious "A Location In-Game Associated with Activating the Hot Spot, Wherein the Location In-Game is Represented by a Non-Promotional Background Object" (Claim 1(d)(i))

Claim 1 recites that the claimed "hot spot" information uploaded to the mobile communication device comprise "a location in-game associated with activating the hot spot, wherein the location in-game is represented by a non-promotional background object." '089 Patent, 14:27–29. The Petition fails to demonstrate that Sturman, whether alone or in view of Ho, renders obvious this limitation.

As discussed above in Section V.A.i, Ho does not teach "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 by claim 1 of the '089 Patent. And Petitioner has likewise failed to demonstrate that Sturman teaches "a location in-game associated with activating the hot spot, wherein the location in-game is represented by a non-promotional background object."

In the Petition, Petitioner argues—in short, conclusory fashion—that Sturman teaches its "ad units" "may designate in-game locations represented by non-promotional background objects." Petition at 57. And Petitioner specifically identifies Sturman's "storefront signs, Jumbotron screens, posters, and t-shirts on characters" as purported "non-promotional background objects." Petition at 57.

But, as their name indicates, these "ad units" of Sturman are not "non-promotional" objects. *See* Ex. 2005, ¶91. Indeed, and as discussed in detail above (*supra* Section VII.A.ii), Sturman describes that "advertisements" are directly displayed in each of Sturman's "ad units." Ex. 1006, [0019]; *see* Ex. 2005, ¶91; *see also* Paper 10 at 29 ("Sturman does not describe its ad units as non-promotional objects."). In contrast, during prosecution, the applicant explained that the claimed "non-promotional background object" "does not have an 'area' in which advertisements directly appear, but instead represents a 'hot spot' that, upon activation, causes 'hidden promotional content' to then appear. Ex. 1002 at 86.

Relatedly, the Board has construed "non-promotional background object" to mean "an object that … does not display a promotional message unless a hot spot is activated." Paper 14 at 18. Sturman's "ad units" do not meet this construction. As discussed, Sturman nowhere discloses or teaches that the "advertisements" displayed at Sturman's "ad units" are "hidden" and only displayed after activating a "hot spot." *See* Ex. 2005, ¶91; *see generally* Ex. 1006. The Petition itself concedes as much, acknowledging that "Sturman does not expressly teach that promotional content is 'hidden' and only displayed when a hot spot is activated." Petition at 58.

Moreover, Petitioner has also failed to demonstrate that Sturman's "ad units" are "non-promotional ***background*** object[s]." *See* Petition at 57. Sturman never describes its "ad units" as background objects. Ex. 2005, ¶92; *see generally* Ex.

1006. And the entirety of Petitioner's argument to this end is simply a one-sentence conclusion: "Sturman also teaches that ad units may designate in-game locations represented by non-promotional background objects." Petition at 57; *see* Paper 10 at 29 ("[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.").

The only purported evidence cited by Petitioner in support of its conclusion is the testimony of its expert, Dr. Zagal. Petition at 57. But Dr. Zagal's testimony is equally conclusory. Ex. 1003, ¶176; *see* Paper 10 at 29. Indeed, Dr. Zagal states only: "Sturman's ad units may also correspond to in-game locations represented by non-promotional background objects. For example, Sturman describes a number of exemplary ad units that correspond to background elements, such as storefront signs, Jumbotron screens, posters, and t-shirts on characters." Ex. 1003, ¶176.

This "testimony" from Dr. Zagal on this topic thus actually just repeats Petitioner's conclusions in the Petition—nearly verbatim:

Petition at 57	**Ex. 1003, ¶176**
Sturman also teaches that ad units may designate in-game locations represented by non-promotional background objects. Ex. 1003, ¶176. For example, Sturman's ad units may include nonpromotional in-game background elements, such as storefront signs, Jumbotron screens, posters, and t-shirts on characters. Ex. 1006, [0019].	Sturman's ad units may also correspond to in-game locations represented by non-promotional background objects. For example, Sturman describes a number of exemplary ad units that correspond to background elements, such as storefront signs, Jumbotron screens, posters, and t-shirts on characters. Ex. 1006, ¶19.

Thus, "[s]imilar to the Petition, Dr. Zagal simply provides a conclusory statement without any reasoning as to why the ad units are 'non-promotional background objects.'" Paper 10 at 29. Dr. Zagal's conclusory testimony is thus entitled little to no weight. *See Xerox*, at 15 ("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."). Indeed, in its original Institution Decision, the Board afforded Dr. Zagal's testimony on this issue "no weight." Paper 10 at 29–30.

And, as noted above, the Federal Circuit has consistently "rejected obviousness determinations based on conclusory and unsupported expert testimony"—like Dr. Zagal's testimony (and Petitioner's challenge) here—noting that "crediting such testimony risks allowing the challenger to use the challenged patent as a roadmap to reconstruct the claimed invention using disparate elements from the prior art—i.e., the impermissible *ex post* reasoning and hindsight bias that *KSR* warned against." *TQ Delta*, 942 F.3d at 1361. Put simply, the Board "cannot accept" Dr. Zagal's (or Petitioner's) unsupported conclusion "as a replacement for documentary evidence for core factual findings in a determination of patentability." *K/S Himpp*, 751 F.3d at 1366; *see Warner*, 379 F.2d at 1017 (holding a challenger

may not "resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in its factual basis").

For all these reasons, Petitioner has failed to demonstrate that the "Sturman-Ho combination" renders obvious "a location in-game associated with activating the hot spot, wherein the location in-game is represented by a non-promotional background object." Indeed, the Petition contends that the proposed "Sturman-Ho combination" meets this limitation solely because "Ho [] teaches that interactive information elements may be non-promotional background objects …." Petition at 57. But as discussed above in Section V.A.i, Ho's "interactive information elements" are not "non-promotional ***background*** objects." *See* Paper 14 at 47–51.

In its Institution Decision on Remand, however, the Board appears to have—for the purposes of institution—interpreted the Petition as suggesting that the proposed "Sturman-Ho combination" meets this limitation because (i) Sturman's "storefront signs and Jumbotron screens" may be "background objects"; and (ii) "integrating Ho's hot spots" (*i.e.*, Ho's "interactive information elements") into Sturman's "ad units," generally, "turns" Sturman's promotional "storefront signs and Jumbotron screens" into "non-promotional" objects. Paper 14 at 40–41.

As discussed above (*supra* Section VII.A.ii), Petitioner has failed to demonstrate that a POSITA would have been motivated to apply Ho's teachings regarding Ho's "interactive information elements" to Sturman's "ad units." But even

if a POSITA would have been so motivated generally, Petitioner has failed to demonstrate that a POSITA would have been motivated to apply Ho's teachings to any purported "background" "ad unit" allegedly disclosed by Sturman, in particular.

As discussed (*supra* Section V.A.i), Ho's teachings with respect to activating "interactive information elements" to display advertisements (Ex. 1004 at 5:27–38) are with respect to game characters, icons, and other game items that are prominently presented in the ***foreground*** of the game for user engagement. Ex. 1004 at 4:22–23, 4:28–29, 5:1–5, Fig. 3; *see* Ex. 2005, ¶95; *see also* Ex. 2005, ¶¶59–64.

Indeed, Ho describes that, "[i]n the course of gameplay," a player is presented "an option to engage the at least one interactive information element," such as "a hamburger monster 56" for example. Ex. 1004 at 4:22–23, 5:1–5; *see* Ex. 2005, ¶59. Relatedly, a POSITA would understand that Ho teaches that such "interactive information elements" are presented in the foreground of the game. Ex. 2005, ¶64. This is confirmed by the fact that Ho's "interactive information elements" illustrated in Figure 3 of Ho are shown in the foreground of Ho's game, as previously noted by the Board. Ex. 1004 at Fig. 3; *see* Ex. 2005, ¶60; *see also* Paper 14 at 50. And Figures 6–8 of Ho likewise show "interactive information elements" in the foreground of Ho's game. Ex. 1004 at 4:29–34, Fig. 6 (interactive information element 206); Ex. 1004 at 4:34–36, Fig. 7 (interactive information element 212); Ex. 1004 at 4:36–39, Fig. 8 (interactive information element 218); *see* Ex. 2005, ¶¶61–63.

Conversely, Ho does not teach any element in the background of Ho's game as being an "interactive information element." Ex. 2005, ¶64; *see* Ex. 1004 at Figs. 6–8. As such, there is no teaching or suggestion in Ho to modify any purported "background" ad unit disclosed by Sturman to be an "interactive information element" as taught in Ho. *See* Ex. 2005, ¶¶95–96. At a minimum, Petitioner fails to present any such theory—let alone supporting evidence—in the Petition. *See In re Magnum Oil Tools Int'l, Ltd*., 829 F.3d 1364, 1381 (Fed. Cir. 2016) ("[T]he Board must base its decision on arguments that were advanced by a party, and to which the opposing party was given a chance to respond.").

At most, the Petition only notes that Sturman describes that "[s]ome" ad units "may be interactive within the game context." Ex. 1006, [0020]; *see* Petition at 57 (citing Ex. 1006, [0020]). But any (unarticulated) suggestion by Petitioner that this "interactive" disclosure in Sturman somehow motivates a POSITA to modify a purported "background" ad unit of Sturman (*e.g.*, "storefront sign"; "Jumbotron screen") to be an "interactive information element" as taught in Ho falls flat.

Sturman's express qualification in its disclosure makes clear that not all of Sturman's ad units are "interactive." Ex. 1006, [0020]; *see also* Paper 14, Dissent at 3. And the primary example provided by Sturman of such an "interactive" ad unit is a "brand name energy bar," which Sturman describes can be engaged (*i.e.*, eaten) by a game character to "boost her power in the game." Ex. 1006, [0020]; *see* Ex. 2005,

¶80. Sturman, however, never describes that any of Sturman's "storefront signs" or "Jumbotron screens"—the purported "background" objects in Sturman (Petition at 57; *see* Paper 14 at 40)—are "interactive" or otherwise capable of engagement by a user or character in the game. *Se* Ex. 1006, [0020]; *see also* Paper 14, Dissent at 3. Moreover, the Petition itself concedes that Sturman's "billboards, storefront signs, panel trucks, Jumbotron screens … [and] posters on walls" are "***non-interactive*** elements." Petition at 51 (emphasis added).

For all these reasons, the Petition fails to demonstrate that Sturman, whether alone or in view of Ho, renders obvious "a location in-game associated with activating the hot spot, wherein the location in-game is represented by a non-promotional background object." '089 Patent, 14:27–29.

C. Sturman, in view of Ho, Does Not Render Obvious Dependent Claims 2–5

Because Sturman, in view of Ho, does not render independent claim 1 obvious (*supra* Sections VII.A and VII.B), Sturman, in view of Ho, does not render obvious any of dependent claims 2–5.

Dependent Claim 3: Dependent claim 3 is also not obvious for independent reasons. Dependent claim 3 requires that "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."

With respect to this claim limitation, the entirety of the Petition's analysis is as follows: "Sturman teaches that advertising content for delivery to a user may be targeted based on 'specific demographic characteristics of a game player,' including the user's IP address and/or geographic location." Petition at 60. Thus, the Petition wholly fails to address whether the purported content in Choi 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.

Nor could the Petition do so, as this is not disclosed in the two cited paragraphs of Sturman. *See* Petition at 60 (citing Ex. 1006, [0047], [0054]). Paragraph [0047] is not related to location at all. Ex. 1006, [0047]. And Paragraph [0054] at most states that ad targeting "may include player geographic information" such as "country, region/state, city" or "postal/zip code, area code, longitude and latitude." Ex. 1006, [0054]. But this is irrelevant to whether content is "***pre-selected***," as the claim requires. Further, there is no description that the targeting is "based on the proximity of the mobile communication device to a physical location related to the hidden promotional content." Simply put the Petition does not address the claim language, and even if it did, it could not establish that Sturman meets the claim.

Similarly, as with other claim elements, Dr. Zagal's conclusory testimony simply parrots the Petition and thus cannot bolster the Petition's failed analysis.

Compare Petition at 60 *with* Ex. 1003, ¶187; *see MarkForged*, at 14; *Xerox*, at 15. Indeed, 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." Ex. 1003 at ¶187. But this does not meet the claim. Thus, the Petition cannot carry its burden with respect to dependent claim 3.

Dependent Claim 4: Dependent claim 4 is also not obvious for independent reasons. Dependent claim 4 requires "tracking the hot spot information that has been downloaded to the mobile communication device."

The Petition acknowledges that this limitation is not disclosed by Ho. Petition at 46 ("Ho does not expressly disclose tracking the hot spot information that has been downloaded to the mobile device."). And the Petition points to just two paragraphs in Sturman, [0042] and [0049], as allegedly rendering this limitation obvious. *See* Petition at 60. But both paragraphs merely describe an "active session database" that "records ***the advertisements*** that have been delivered to a session." Ex. 1006, [0049]; *see also id*. [0042]. These paragraphs do not disclose "tracking ***the hot spot information*** that has been downloaded to the mobile communication device," as the claim requires.

Independent claim 1—from which dependent claim 4 depends—expressly recites that the claimed "hot spot information" include both [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 [ii] "hidden promotional content for presenting to the user, within a gaming environment of the mobile video game, when the hot spot is activated." '089 Patent, 14:27–32. The Petition does not address how or why Sturman's description of tracking advertisements in an active session database also discloses or suggests tracking the additional information of a "hot spot," including the "location in-game associated with activating the hot spot, wherein the location in-game is represented by a non-promotional background object." Thus, the Petition necessarily fails as to this claim.

Further, Dr. Zagal's conclusory testimony as to this limitation again simply parrots the Petition and thus cannot bolster the Petition's failed analysis. *Compare* Petition at 61 *with* Ex. 1003, ¶189; *see MarkForged*, at 14; *Xerox*, at 15. Thus, the Petition cannot carry its burden with respect to dependent claim 4.

Dependent Claim 5: Claim 5 depends from and further limits claim 4. *See* '089 Patent, 14:45–47. The Petition does not cure any of the deficiencies discussed above with regard to claim 4 in its analysis of claim 5, and thus the Petition fails to carry its burden with respect to claim 5 for at least the same reasons discussed above.

D. Sturman, in view of Ho, Does Not Render Obvious the Claimed "Hot Spot Information" and "Hot Spot" (Claim 6(a)–(6(e))

For the same reasons as discussed above with respect to claim limitations 1(a)–1(e), Petitioner has failed to carry its burden of demonstrating that Sturman, in

view of Ho, discloses or renders obvious the claimed "hot spot information" and claimed "hot spot" in independent claim 6 of the '089 Patent. *See* Petition at 61 (Petitioner contending claim 6 is "rendered obvious by the Sturman-Ho combination for the same reasons set forth for claim 1").

E. Sturman, in view of Ho, Does Not Render Obvious "A Location In-Game Associated with Activating the Hot Spot, Wherein the Location In-Game is Represented by a Non-Promotional Background Object" (Claim 6(e)(i))

For the same reasons as discussed above with respect to claim limitation 1(d)(i), Petitioner has failed to carry its burden of demonstrating that Sturman, in view of Ho, discloses or renders obvious sending "hot spot information" from a server to a mobile communication device comprising "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 6 of the '089 Patent. *See* Petition at 63 (Petitioner contending limitation 6(e)(i) is rendered obvious by "the Sturman-Ho combination for the reasons set forth above" with respect to limitation 1(d)(i)).

F. Sturman, in view of Ho, Does Not Render Obvious Dependent Claims 7–10

Because Sturman, in view of Ho, does not render independent claim 6 obvious (*supra* Sections VII.D and VII.E), Sturman, in view of Ho, does not render obvious any of dependent claims 7–10.

Dependent Claim 7: Additionally, dependent claim 7 is not obvious for independent reasons. The Petition's analysis for claim 7 simply refers back to its (deficient) analysis of claim 3, which, as discussed above, does not carry Petitioner's burden of establishing obviousness. *See supra* Section V.C.

Dependent Claim 8: Dependent claim 8 is not obvious for independent reasons. Dependent claim 8 requires that "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."

The Petition relies solely upon Sturman with respect to this limitation and urges that Sturman teaches this limitation through its "matching algorithm," which purportedly selects "an ***advertisement*** in response to a request" that may take into account a "SKU," which purportedly represents a "client type." Petition at 63 (emphasis added). But even if this were correct, it does not meet the claim element, which requires "***the hot spot information*** is pre-selected."

Independent claim 6—from which dependent claim 8 depends—expressly recites that the claimed "hot spot information" include both [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 [ii] "hidden promotional content for presenting to the user, within a gaming environment of the mobile video game, when

the hot spot is activated." '089 Patent, 14:62–67. The Petitioner, in contrast, fails to address how Sturman discloses or renders obvious the server pre-selecting the "location in-game associated with activating the hot spot, wherein the location in-game is represented by a non-promotional background object" (of the claimed "hot spot information") based on the factors recited in dependent claim 8. *See* Petition at 63–64. Thus, the Petition necessarily fails as to this claim.

Further, as with the other claim elements discussed above, Dr. Zagal does nothing to support a conclusion of obviousness. Instead, he parrots the same statements made in the Petition. *Compare* Petition at 63–64 *with* Ex. 1003, ¶202. Dr. Zagal's conclusory testimony should be thus afforded little to no weight and cannot carry Petitioner's burden. *See MarkForged*, at 14; *Xerox*, at 15. Thus, the Petition fails to carry its burden with respect to dependent claim 8.

Dependent Claims 9 & 10: Additionally, dependent claims 9 and 10 are not obvious for independent reasons. The Petition's analysis for claims 9 and 10 simply refers back to its (deficient) analysis of claims 4 and 5, which, as discussed, does not carry Petitioner's burden of establishing obviousness. *See supra* Section V.C.

VIII. CONCLUSION

For at least the reasons set forth above, the Petition fails to shoulder its burden of establishing that the Challenged Claims of the '089 Patent are unpatentable.

Dated: February 24, 2025

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CERTIFICATE OF WORD COUNT

Pursuant to 37 C.F.R. § 42.24(d), the undersigned certifies that this Patent Owner Response contains 13,728 words according to the word-processing program used to prepare this paper. The foregoing word count complies with the 14,000 word type-volume limit specified by 37 C.F.R. § 42.24(b)(2).

Dated: February 24, 2025

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