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.

> IPR2024-00132 Patent 9,731,202 B2

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

McKONE, Administrative Patent Judge.

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

I. INTRODUCTION

PLR Worldwide Sales Limited ("Petitioner") filed a Petition (Paper 2, "Pet.") requesting *inter partes* review of claims 1–9 of U.S. Patent No. 9,731,202 B2 (Ex. 1001, "the '202 patent"). Flip Phone Games, Inc. ("Patent Owner") filed a Preliminary Response to the Petition. Paper 6. Petitioner filed a Preliminary Reply to the Preliminary Response (Paper 7) and Patent Owner filed a Preliminary Sur-reply to the Preliminary Reply (Paper 8). The Board instituted an *inter partes* review of the challenged claims pursuant to 35 U.S.C. § 314. Paper 9 ("Inst. Dec.").

After institution, Patent Owner filed a Patent Owner Response (Paper 12, "PO Resp."), Petitioner filed a Reply (Paper 21, "Reply"), and Patent Owner filed a Sur-reply (Paper 22, "Sur-reply"). The parties then presented oral arguments via a (video) Hearing (January 28, 2025), and the Board entered a Hearing transcript into the record (Paper 28, "Tr.").

For the reasons set forth in this Final Written Decision pursuant to 35 U.S.C. \$ 318(a), we determine that Petitioner has demonstrated, by a preponderance of the evidence, that claims 1–9 are unpatentable.

II. BACKGROUND

A. Related Proceedings

The parties identify *Flip Phone Games, Inc. v. PLR Worldwide Sales Limited*, 2:23-cv-00139-JRG (E.D. Tex.) as related to this proceeding. Pet. 61; Paper 4, 1. Patent Owner further identifies *PLR Worldwide Sales Limited v. Flip Phone Games, Inc.*, IPR2024-00133 (PTAB), *PLR Worldwide Sales Limited v. Flip Phone Games, Inc.*, IPR2024-00171 (PTAB), *PLR Worldwide Sales Limited v. Flip Phone Games, Inc.*, IPR2024-00200

(PTAB), and *PLR Worldwide Sales Limited v. Flip Phone Games, Inc.*, IPR2024-00209 (PTAB). Paper 4, 1; Paper 13, 1.

B. The '202 Patent

The '202 patent relates generally to systems and methods for providing updated video game content to a mobile communication device. Ex. 1001, 1:6–8. Figure 1, reproduced below, illustrates an example:



Figure 1 is an overview block diagram of components used to update ingame content on a mobile communication device. *Id.* at 3:60–63. In distribution block 125, user 105 plays a mobile video game on mobile communication device 110. *Id.* at 5:15–18. The video game includes instructions 115 to check for updated content stored on data storage medium 130 at server 120. *Id.* at 5:18–20, 5:43–46. Mobile communication device 110 connects to server 120 through network 122 (which can include the Internet, telephone, and data networks) to perform this check. *Id.* at 5:20– 22, 5:31–33. "After server 120 receives a communication request from mobile communication device 110, server 120 may check whether updated content is available for one or more mobile video games. If updated content is available, server 120 may send or provide (i.e., upload) the updated content to mobile communication device 110." *Id.* at 5:56–61.

Figure 2A, reproduced below, illustrates how updated content might be used in a video game:



FIG. 2A

Figure 2A is a diagram of a scene of a dart game, with dart board 210, in a video game played on a mobile communication device. *Id.* at 3:64–67, 6:34–38. Items 210, 220, 225, 230, and 235 within scene 200 may be

changed by receiving updated content on mobile communication device 110. *Id.* at 6:42–45. In one example, shirt 230 is updated to include a logo associated with third party "X," poster 225 is updated to advertise an upcoming movie for third party "Y," and chalk board 220 is updated to contain a handwritten advertisement for third party "Z." *Id.* at 6:45–50.

Figure 4B is reproduced below:



FIG. 4B

Figure 4B is a flow chart of steps taken by a server to update in-game content on a mobile communication device. *Id.* at 4:5–8, 13:1–4. The server stores updated content in a storage medium, such as a relational database

(step 410). *Id.* at 13:30–35. An interface receives a request for updated content from the mobile communication device (step 420) and verifies whether the mobile communication device should receive content updates (step 425). *Id.* at 13:36–40, 13:50–52. In one example, the interface verifies that the mobile communication device belongs to a particular service subscription. *Id.* at 13:53–55. The server receives the request (step 430) and determines what content should be sent to the mobile communication device

(step 440). Id. at 13:64-67.

For example, the determination may be based on the model type of the mobile communication device, the service plan or subscription to which the mobile device belongs, the service provider that provides the plan to the mobile device, the base location of the mobile device, the current location of the mobile device, which updates the mobile device has already received, and/or other criteria associated with the user or the mobile communications device.

Id. at 14:1–8.

Claim 1, reproduced below (bracketed numbering added to track that used by Petitioner (Pet. viii)), is illustrative of the subject matter at issue:

1. [pre] A method for providing updated video-game content to a mobile communication device for use in a mobile video game, the method comprising the steps of:

- [1a] receiving a request for the updated video-game content from the mobile communication device, the updated video-game content being usable in the video game that already exists on the mobile communication device;
- [1b] checking what updated video-game content to send based on one of the factors including a type of the mobile communication device, a telecom service associated with the mobile communication device, and a service provider of the telecom service; and

> [1c] uploading updated video-game content to the communications device, the video-game content being usable when the video game operates on the communications device.

C. Evidence

Petitioner relies on the references listed below.

	Reference	Date	Exhibit
			No.
Levkovitz	US 2007/0088801 A1	Pub. Apr. 19, 2007	1008
		Filed May 4, 2006	
Choi	US 2007/0174490 A1	Pub. July 26, 2007	1006
		Filed Jan. 19, 2007	
Hays	US 2008/0102947 A1	Pub. May 1, 2008	1005
		Filed Mar. 8, 2005	
Chu	US 7,698,178 B2	Iss. Apr. 13, 2010	1007
		Filed Nov. 22, 2005	
van Datta	US 9,129,301 B2	Iss. Sept. 8, 2015	1009
		Filed June 13, 2006	

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

(Ex. 1003).

Patent Owner relies on the declaration of Robert Akl, D.Sc. (Ex. 2004).

D. The Asserted Grounds of Unpatentability

Claim(s) Challenged	35 U.S.C. §	Reference(s)
1–9	$103(a)^{1}$	Hays
1–9	103(a)	Hays, Choi
4	103(a)	Hays, Chu
4	103(a)	Hays, Choi, Chu
6	103(a)	Hays, van Datta
6	103(a)	Hays, Choi, van Datta
1-3, 5-9	103(a)	Levkovitz
4	103(a)	Levkovitz, Chu
6	103(a)	Levkovitz, van Datta

We instituted a trial under the following grounds:

III. ANALYSIS

A. Level of Skill in the Art

Petitioner, relying on the testimony of Dr. Zagal, contends that a person having ordinary skill in the art "would have had 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." Pet. 2 (citing Ex. 1003 ¶¶ 66–70). According to Petitioner, "[1]ess work experience may be compensated by a higher level of education or vice versa." *Id.* at 2–3.

Patent Owner, relying on the testimony of Dr. Akl, contends that a skilled artisan "would have a bachelor's degree in electrical engineering,

¹ The Leahy-Smith America Invents Act ("AIA"), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. § 103. Because the '202 patent was filed before March 16, 2013, for purposes of this Decision, we apply the pre-AIA version of § 103.

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," but notes that a skilled artisan "may have additional education that might substitute for some of the experience, and additional substantial experience might substitute for some of the educational background." PO Resp. 2 (citing Ex. 2004 ¶ 27). According to Patent Owner, Petitioner's proposal does not require experience in programming video games. *Id.* at 3. 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 more specific proposal because it is consistent with the level of skill evidenced in the '202 patent and the applied prior art, but we agree with Patent Owner that this does not affect our analysis; we would reach the same conclusions under Petitioner's proposal.

B. Claim Construction

We construe claims "using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. 282(b), including construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent." 37 C.F.R. § 42.100(b) (2023); *see also Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc).

Petitioner "does not believe any terms require construction to resolve the patentability disputes because the challenged claims are rendered

unpatentable by the cited art under any reasonable interpretation of the claims." Pet. 14. Petitioner "takes no position in this Petition as to whether the claims are indefinite." *Id.* (citing Ex. 1003 ¶¶ 72–73).

Although Patent Owner does not expressly propose construing any claim term, Patent Owner's arguments regarding the application of prior art to the preamble of claim 1 and limitations [1a] and [1c] implicate a claim construction dispute.² The preamble of claim 1 recites "[a] method for providing updated video-game content to a mobile communication device *for use* in a mobile video game." Claim limitation [1a] recites "the updated video-game content being *usable* in the video game that already exists on the mobile communication device." Claim limitation [1c] similarly recites "the video-game content being *usable* when the video game operates on the communications device."

Patent Owner argues that "Hays does not disclose that its advertisements are 'for use' in the mobile video game nor 'usable in the video game." PO Resp. 14.³ Patent Owner characterizes Hays's advertisements as "untethered from game functionality" and "merely represent[ing] 'skins' that are displayed within the gaming environment but that do not affect game play." *Id.* at 14–15 (citing Ex. 2004 ¶¶ 61–64;

² Patent Owner argued at the oral hearing that "[w]e're not here to ask you to narrow claims at all. We agree that no claim construction is necessary in this proceeding." Tr. 27:11–13. However, Patent Owner's arguments in favor of patentability clearly implicate claim construction.

³ Patent Owner clarified at the hearing that its arguments for the language in the preamble of claim 1 and in claim limitations [1a] and [1c] are the same, and that we need not decide whether the preamble of claim 1 is limiting. Tr. 38:14–24.

Ex. 1005 ¶¶ 17–19).⁴ Patent Owner attempts to distinguish "usable in the video game" from what it characterizes as Hays's texture maps and other graphical displays on pre-designated geometry within a game, such as billboards, storefronts, Jumbotron screens, posters, and T-shirts on game characters. *Id.* at 15 (citing Ex. 1005 ¶ 18). Patent Owner admits that Hays's ad units may be interactive within the game but argues that they do not "alter the functionality of the game based on whether an advertisement is displayed, much less that the functionality is specific to an advertisement versus the preexisting placement location, i.e., the 'ad unit.'" *Id.* (citing Ex. 2004 ¶ 64). Such interactive ad units, Patent Owner argues, are not for use in the game because, "to the extent there is any game functionality associated with an 'ad unit,' that functionality is the same regardless of whether an advertisement is displayed on the ad unit." *Id.* at 15–16 (citing Ex. 2004 ¶ 64). Patent Owner also argues that Hays's ad units do not relate to in-game purchases. *Id.* at 16 (citing Ex. 2004 ¶ 64, 72).

From these distinctions, Patent Owner seeks to add several requirements for the language "for use in a mobile video game" or "usable in the video game," including that the updated video-game content be an interactive object that is inserted into an existing game, or at least a new ad unit not already present in the game, and that the updated content alters the function of the game. *Id.* at 14–16. Patent Owner offers no persuasive support for these restrictions on the claim language.

⁴ Patent Owner makes similar arguments for Levkovitz. *See, e.g.*, PO Resp. 40-41 ("Levkovitz merely discloses 'serv[ing] content items directed for presentation..." "But this still simply teaches that the advertisement is presented, not that it is for use or usable in the video game." (internal citations omitted)).

The claim language itself suggests no such restrictions. Rather, the claim language simply recites video-game content that is usable in the video game. The claim language does not specify who or what must use the content or how it must be used. Thus, the claim language itself is broad and includes none of the restrictions Patent Owner would place on it.

As Petitioner points out (Reply 5), the specification directly refutes Patent Owner's position. The '202 patent's Figure 2A (reproduced above) is instructive. In this example, "several items 210, 220, 225, 230, and 235 are shown within scene 200," and

virtually any of these items may be changed by receiving updated content on the mobile communication device. For instance, the shirt 230 might be updated to include a logo associated with third party X (as shown). The poster 225 might advertise an upcoming movie for third party Y, and chalk board 220 may contain a handwritten advertisement for third party Z (as shown).

Ex. 1001, 6:42–50. When an advertising contract changes, "the mobile communication device may thereafter download updated content reflecting a new graphic, shirt, or entirely new object, to place at 230." *Id.* at 6:55–57. These are examples of updated video-game content (updated advertisements on posters, T-shirts, and chalk boards) that are usable (e.g., by the game or mobile communication device executing the game) in a video game that already exists on the mobile communication device. These are also examples of what Patent Owner argues are "skins" that correspond to existing ad units and that do not alter any function of the game. Patent Owner's construction, then, would exclude the '202 patent's preferred embodiment. "Such an interpretation is rarely, if ever, correct and would require highly persuasive evidentiary support, which is wholly absent in this

case." Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1583 (Fed. Cir. 1996).

In response, Patent Owner argues that these examples are "unrelated sections of the '202 Patent's specification" and that "neither the logo nor poster are used in the game." Sur-reply 6 (citing Ex. 1001, 6:60–61). Instead, Patent Owner argues (*id.*), we should consider the '202 patent's disclosure that "[i]n another example, newer mobile communication devices may be able to display a more elaborate initial message, so distinguishing among types of mobile communication devices may allow a game provider to maximize the experience on each type of mobile communication device." Ex. 1001, 10:41–45.⁵ Patent Owner does not explain how this passage provides evidence of what the claims mean by "for use" and "usable" within a video game, and we find it inapposite. Specifically, we find that this passage does not contradict the preferred embodiment at Exhibit 1001, 6:42–57, provide lexicography for "usable" and "for use," or purport to exclude anything from "usable" and "for use."

At the oral hearing (Tr. 32:16–33:3), Patent Owner pointed to disclosure in the '202 patent that:

Other content of the mobile video game, such as the shape, design coloring of dartboard 210 or the texture or coloring of background 215 may be updated. In other games, new weapons, interactive characters, levels, hot spots, and other items may be provided as part of the update. In short, any content element used in the mobile video game may be updated, depending on the embodiment.

⁵ At the oral hearing, Patent Owner stated that it had intended to cite the substantially similar language at column 11, lines 40–45. Tr. 44:17–20.

Ex. 1001, 7:7–13. Instead of supporting Patent Owner's position, this passage makes clear that "[o]ther content of the mobile video game, such as the shape, design coloring of dartboard 210 or the texture or coloring of background 215" falls within "any content element used in the mobile video game." *Id.* Thus, the specification does not support Patent Owner's position that "for use in a mobile video game" and "usable in the video game" require an interactive object or new ad unit that is inserted into an existing game and that alters the function of the game.

Patent Owner also argues that the '202 patent's prosecution history supports limiting "for use in a mobile video game" and "usable in the video game." Specifically, Patent Owner argues that "the applicant expressly distinguished during prosecution the concept of a link to content used in a separate application, like a portal to data provided by an ad server, from the claimed 'usable' content." PO Resp. 18 (citing Ex. 2004 ¶¶ 67–68). During prosecution, the applicant distinguished the Gatto reference from the pending claims in an office action response and in a pre-appeal brief. Ex. 1002, 166, 188–89. According to the applicant, Gatto teaches downloading promotional items in response to a user clicking on a hyperlink included in an email lottery ticket. *Id.* at 166, 187. The applicant distinguished Gatto by arguing that an email is not a video game and that promotional items available for download via hyperlinks are not usable in the email. *Id.* at 166, 188. For example, the applicant argued:

Nothing in Gatto discloses that these "promotional items" "**update**" the email ticket when downloaded; in fact, it appears that the email ticket is not updated once it is sent to a user to "play." A "hyperlink" is not updated content for the email ticket, but instead causes the download of an entirely separate program or Internet page.

Id. at 166.

Petitioner argues that the prosecution history is inapposite, as the applicant was not arguing that the hyperlinks were updated content, but that the updated content was the promotional items that were linked to, but not used, in the email. Reply 6–7. "In other words, the problem with Gatto was that the updated content was linked by the hyperlinks and not within the email itself." Id. at 7. We agree with Petitioner. The applicant did not distinguish Gatto because the promotional content was akin to "skins" that did not alter game play. Rather, the applicant distinguished Gatto because Gatto's promotional content did not appear in the email that the Examiner alleged was a video game. In response, Patent Owner also agrees with this statement by Petitioner but argues that "the distinction with Gatto is the same as Hays, which as noted, provides 'ad units,' which are 'pre-designated geometry within the game,' at which linked advertising may be displayed." Sur-reply 8 (citing Ex. 1005 ¶ 18). In fact, Gatto appears to have very little similarity to Hays in this regard. We find that the prosecution history does not suggest the limitations on "for use in a mobile video game" and "usable in the video game" advanced by Patent Owner.

On the complete record, including the plain language of claim 1, the specification, and the prosecution history, we conclude that the terms "for use in a mobile video game," "usable in the video game," and "the video-game content being usable when the video game operates" do not require an interactive object or new ad unit that is inserted into an existing game that alters the function of the game.

Based on the record before us, we do not find it necessary to provide express claim constructions for any other claim terms. *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)).

C. Printed Publication Status of Hays and Choi

In an *inter partes* review, a petitioner "may request to cancel as unpatentable 1 or more claims of a patent only on a ground that could be raised under section 102 or 103 and only on the basis of prior art consisting of patents or printed publications." 35 U.S.C. § 311(b). Patent Owner argues that "[e]ach of Hays and Choi is only a 'printed publication' under § 311(b) as of the date it became available to the public—*i.e.*, after the June 26, 2007, priority date of the '202 Patent." PO Resp. 56. Patent Owner argues that a prior art reference under pre-AIA 35 U.S.C. § 102(e) is a printed publication under Section 311(b) only as of its publication date and not as of its filing date. *Id.* at 56–58.

The Federal Circuit has rejected this argument, holding that a published patent application is, by its literal terms, a "printed publication." So, when § 311(b) permits IPR challenges based upon "prior art . . . printed publications," it includes within its literal scope challenges based upon a published patent application. And, by virtue of § 102(e)(1), a published patent application—this specific type of "printed publication"—is deemed prior art as of its filing date. Therefore, the plain language of §§ 311(b) and 102(e)(1) permits IPR challenges based upon published patent applications, and such published patent applications can be deemed prior art in IPRs as of their filing date.

Lynk Labs, Inc. v. Samsung Elecs. Co., 125 F.4th 1120, 1127 (Fed. Cir. 2025). Thus, Petitioner asserts permissible grounds of unpatentability under 35 U.S.C. § 311(b) by arguing that claims 1–9 are unpatentable under 35 U.S.C. § 103(a) on the basis of Hays or Hays and Choi, which are prior art printed publications.

D. Obviousness Grounds Including Hays

Petitioner contends that claims 1–9 would have been obvious over Hays; that claims 1–9 would have been obvious over Hays and Choi; that claim 4 would have been obvious over Hays and Chu or Hays, Choi, and Chu; and that claim 6 would have been obvious over Hays and van Datta or Hays, Choi, and van Datta. Pet. 1. Petitioner has shown sufficiently that claims 1–9 would have been obvious over Hays and that claim 6 would have been obvious over Hays and that claim 6 would have

A claim is unpatentable under 35 U.S.C. § 103 if the differences between the claimed subject matter 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." We resolve the question of obviousness on the basis of underlying factual determinations, including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) objective evidence of nonobviousness, i.e., secondary considerations. *See Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 17–18 (1966).

Scope and Content of the Prior Art Overview of Hays

Hays is directed to techniques for displaying advertisements in video games. Ex. $1005 \P 2-3$. Figure 1A of Hays, reproduced below, illustrates an example:



FIG. 1A

Figure 1A is a block diagram of an environment for implementing an advertisement delivery scheme and associated facility. *Id.* \P 6.

Environment 100 includes several interconnected systems, including game developer system 102, advertisement recipient client 104 (e.g., a game player system), advertiser system 106, advertisement management service system 108, and game publisher system 110. *Id.* ¶ 27. Advertisement management service system 108 includes components and services, including advertisement server 114, advertisement recipient database 120,

and advertisement serving database 122, to facilitate the management and dissemination of advertisements into games. *Id.* \P 28.

"[A]dvertisement server 114 may select advertisements based upon a variety of factors, including location, time of day, game player demographics, game play data, etc." *Id.* ¶ 30. "The advertisement server 114 may also retrieve records from the advertisement recipient database 120 (e.g., demographic and login information for specific players) to select appropriate advertisements to serve to current available ad units that the game player will see in the video game." *Id.* Figure 2, reproduced below, illustrates advertisement server 114 in more detail:



FIG. 2

Figure 2 is a block diagram showing the flow of data through the components depicted in Figure 1A in association with advertisement server 114. *Id.* ¶¶ 8, 37.

In Figure 2, advertisement recipient client 104 communicates with advertising request handler 210 associated with advertisement server 114 to enable the matching of advertisement campaigns to video game titles.

Id. \P 37. For example,

advertisement recipient client 104 requests advertisements for delivery to one or more available ad units within the client software application. This request contains a data structure that includes a unique identifier to indicate the client type, another unique identifier for the specific game player, the session ID and the list of advertising units for which advertisements are being requested. The client type can effectively be a [stock keeping unit (SKU)], which includes a type of game console, game, language, etc.

Id. ¶ 40. Advertising request handler 210 forwards this request to advertising matching and weighting system 220, which processes the request and retrieves from advertisement recipient database 122 a set of one or more matched advertisements to be displayed. *Id.* ¶¶ 40, 43.

Specifically, advertising matching and weighting system 220 calculates the weight of each advertisement based on several factors, including information regarding the specific client type from advertisement recipient database 120, and selects one or more advertisements, where the probability of an advertisement being selected is directly derived from the advertisement's assigned weight, relative to other advertisements in the set. *Id.* ¶ 43. The selected advertisements are sent back to requesting advertising request handler 210 and transmitted back to advertisement recipient client 104 for display. *Id.* Advertisers can use insertion orders to contract with the

advertisement management service to place advertisements within a game, a game zone, or a specific available ad unit for a defined period of time and view frequency. *Id.* ¶ 57. "For example, a company may request its logo to be placed on any panel trucks in Zone 7 of the game 'Driving Frenzy' (a fictional game) for the next three weeks but no more than three times per game session for a total of 1 million impressions." *Id.* In another example,

the advertisement management service system may send bots or electronic agents into the game as advertising units or real characters in the game, which advertise or promote a product (e.g., a game character may move around a screen holding a can of Pepsi and ask player if they would like a drink).

Id. ¶ 79.

b. Overview of van Datta

Van Datta "relates to placing advertisements for products, services and/or advertisers that may be of interest to a particular consumer in a digital medium, such as an interactive video game, based in part upon the consumer's preferences, and tracking the advertisements that are selected and how often those advertisements are viewed by the consumer." Ex. 1009, 1:23–29. In one example, objects (e.g., the face of a billboard) in a video game may be tagged to indicate that an advertisement may be embedded in that location. *Id.* at 2:59–64.

In another example, a user (e.g., game player) can drag-and-drop an advertisement into a particular advertising asset displayed in the environment window. *Id.* at 7:55–8:2. Specifically, the user may select a particular advertising logo to appear on the character's vehicle (Figure 3A) or uniform (Figure 3B) (both reproduced below). *Id.* at 5:62–6:2.



Figure 3A is a picture of race cars with tagged objects (e.g., side panels or hood portions) for insertion of advertising content. *Id.* at 2:42–44. Figure 3B is a picture of human characters with tagged objects on the front of their uniforms for insertion of advertising content. *Id.* at 2:45–47.

2. Differences Between the Prior Art and the Challenged Claims; Reasons to Modify or Combine
a. Claims 1–3 and 7–9

Regarding claim 1, Petitioner contends that Hays's advertisement delivery scheme teaches a "method for providing updated video-game content to a mobile communication device for use in a mobile video game," as recited in the preamble of claim 1.⁶ Pet. 15–16. Specifically, Petitioner argues that campaign messages from advertisers are "updated video-game content," Hays's game titles are "mobile video games," and Hays's platform, e.g., a mobile phone embodiment of client 104, is a "mobile communication device." *Id.* at 15–16 (citing Ex. 1005 ¶¶ 17, 21, 51; Ex. 1003 ¶¶ 92–95).

As to claim limitation [1a], Petitioner contends that Hays's client 104 (a mobile device) requests and receives advertisements (updated video-game content) from advertisement management service system 108. *Id.* at 16 (citing Ex. 1005 ¶ 32; Ex. 1003 ¶¶ 96–98). For example, Hays explains that "[t]he game playing device 126 may request and receive advertisements from the advertisement management service system 108 and may be configured to establish communication via a communication link, such as the Internet 129." Ex. 1005 ¶ 32. We find that this teaches "receiving a request for the updated video-game content from the mobile communication device," as recited in claim limitation [1a].

⁶ Petitioner does not take a position as to whether claim 1's preamble is a limitation. Pet. 15 ("[t]o the extent the preamble is limiting"). Patent Owner argues that Hays does not teach updated video-content "for use in a mobile video game," but groups that argument with aspects of claim limitations [1a] and [1c], as explained below. PO Resp. 14–20. We need not determine whether the preamble is limiting, as Petitioner's evidence is sufficient to show that Hays teaches the preamble.

Petitioner contends that the advertisements are usable in the video game already on Hays's gaming device, e.g., a game character might move around the screen holding a can of Pepsi. Pet. 16–17 (citing Ex. 1005 ¶¶ 21, 79; Ex. 1003 ¶ 98). In this example, "the advertisement management service system may send bots or electronic agents into the game as advertising units or real characters in the game, which advertise or promote a product (e.g., a game character may move around a screen holding a can of Pepsi and ask player if they would like a drink)." Ex. 1005 ¶ 79.

As to claim limitation [1c], Petitioner contends that Hays teaches that the advertisements selected by advertisement management service system 108 are uploaded, via advertising request handler 200, to client 104 for display. *Id.* at 20 (citing Ex. 1005 ¶ 43; Ex. 1003 ¶¶ 105–106). In this example, after advertising matching and weighting system 220 selects one or more advertisements, "[t]he selected advertisements are then sent back to the requesting advertising request handler 210 and transmitted back to the advertisement recipient client for display." Ex. 1005 ¶ 43. We find that this teaches "uploading updated video-game content to the communications device," as recited in claim limitation [1c].

Similar to its arguments for claim limitation [1a], Petitioner argues that Hays's advertisements are usable when the video game operates on the communications device because, when then are uploaded to the device, they are displayed during game play. Pet. 21 (citing Ex. 1005 ¶¶ 21, 79; Ex. 1003 ¶ 106). For example, Hays's "specific advertisements may be presented in the appropriate available ad units at the appropriate time during game play." Ex. 1005 ¶ 21. In another example, the advertisement management service

system can send bots into the game offering the game player a branded drink. *Id.* ¶ 79. Other examples include

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.

Id. ¶ 18.

As to the preamble of claim 1 and claim limitations [1a] and [1c], Patent Owner contends that Hays does not teach advertisements that are "for use" or "usable" in a video game that already exists on the communications device. PO Resp. 14–20; Sur-reply6–8. Patent Owner argues that Hays's advertisements are not usable in the video game because they are merely "skins" that are displayed within the gaming environment and do not affect game play, alter the functionality of game play based on whether the advertisements are displayed, or relate to in-game purchases. PO Resp. 14– 16 (citing Ex. 1005 ¶¶ 17–19, 79; Ex. 2004 ¶¶ 62–64, 72); Sur-reply 6–8.

As explained in Section III.B, above, the phrases "for use in a mobile video game," "usable in the video game," and "the video-game content being usable when the video game operates" do not require an interactive object or new ad unit that is inserted into an existing game that alters the functionality of the game. Hays describes uploading advertisements to a mobile communications device with an existing video game and presenting those advertisements in ad units within that game during game play. Ex. 1005 ¶ 18, 21, 32, 43, 79. These advertisements are usable in the video game, at least by the video game itself and also by the player. *See, e.g.*,

id. ¶ 18 ("items *used* by game characters (e.g., a brand name soft drink or energy bar)" (emphasis added)).

Patent Owner also admits that "Hays describes predesignated ad units that may be 'interactive within the game." PO Resp. 15 (quoting Ex. 1005 \P 19; citing *id.* \P 79). For example:

Some available ad units may be interactive within the game (e.g., a game character eating a brand name energy bar to boost her power in the game, a brand-related "minigame" 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. 1005 ¶ 19. We find that this teaches video-game content being usable when the video game operates, here, usable by the game player.

Moreover, even if we were to agree with Patent Owner's construction of these terms, Hays describes advertisements that alter the functionality of game play based on whether the advertisements are displayed. For example, game play is altered when a player eats a brand name energy bar. Ex. 1005 ¶ 19. Similarly, game play is altered when a bot is inserted into the video game to offer the player a brand name drink. *Id.* ¶ 79. Patent Owner stated at the oral hearing that "I don't dispute that if, if Hays were to disclose, which it does not, sending the brand name energy bar itself, the available ad unit as the updated content and then a player character eats it to boost their energy, I would not dispute that that is content usable when the videogame operates." Tr. 36:3–6. However, this is, in essence, what Hays describes. Ex. 1005 ¶¶ 18, 19, 79.

As to the Pepsi can example, Patent Owner responds that Hays describes this as no more than a "skin" on "pre-designated geometry" that is already in the game. PO Resp. 16 (citing Ex. 1005 ¶¶ 18, 58); *see also id.* at

18–19 ("Even if the ad content were usable in the game, Hays does not contemplate introducing any new or *updated* video-game content. Instead, Hays describes a game that already has pre-designated content and advertisements in the game when it is obtained by a user." (citing Ex. 1005 ¶ 19; Ex. 2004 ¶¶ 72–73)); Sur-reply 7 ("[T]hese 'bots or electronic agents' are not received from a server, but rather are part of the game at the time it is created and include 'advertising units,' which can be updated to change skin, as Hays describes." (citing Ex. 1005 ¶ 18)). According to Patent Owner, "the game described in Hays operates in the same way whether the can is blank or says Pepsi, and similarly the user does not experience any differences in the game based on the Pepsi skin being applied to the can versus there being no or a different advertisement there." PO Resp. 16–17; see also id. at 19 ("As with the 'Pepsi' example above, the 'energy bar' that was included in the game code (and that thus cannot be the updated content sent based upon the checking step) was interactive regardless of the skin displayed. And this energy bar functions in the same way regardless of the skin displayed (i.e., regardless of whether the branding is known or fictional)."(citing Ex. 1005 ¶ 19; Ex. 2004 ¶73)); Sur-reply 7 ("Hays does not describe the inclusion of an advertisement—i.e., the specific brand of energy bar—as modifying any functionality. Rather, the game operates in the same way whether the energy bar is blank, shows the branding of a known brand, or includes a fictional in-game brand." (citing Ex. 2004 ¶¶ 63– 64)).

Patent Owner and Dr. Akl misunderstand Hays. In the soft drink example, "the advertisement management service system may send bots or electronic agents into the game as advertising units or real characters in the

game." Ex. 1005 ¶ 79. Thus, the service system inserts more than a skin; it inserts a bot or agent that was not part of the game before its insertion. Because Dr. Akl's testimony (Ex. 2004 ¶¶ 63–64, 72–73) is inconsistent with Hays's disclosure, we do not credit it. *See Homeland Housewares, LLC v. Whirlpool Corp.*, 865 F.3d 1372, 1378 (Fed. Cir. 2017) ("[W]e must disregard the testimony of an expert that is plainly inconsistent with the record").

In the Sur-reply, Patent Owner argues that "nowhere does Hays include any suggestion that the player's character has the option to drink any advertised product *in the game*, as opposed to suggesting the player do so in real life." Sur-reply 7. Patent Owner argues that "Hays never describes any interaction by the user with these 'bots or electronic agents.' Instead, they act as non-interactive mobile advertisements." Id. Patent Owner, however, already admitted that "Hays describes predesignated ad units that may be 'interactive within the game." PO Resp. 15 (citing Ex. 1005 ¶ 19, 79). In addition to undermining Patent Owner's credibility, Patent Owner's aboutface is tantamount to a new argument, not presented in the Patent Owner Response, that has been forfeited. See In re Google Tech. Holdings, 980 F.3d 858, 863 (Fed. Cir. 2020) (The "failure to raise . . . arguments, inadvertent or not, compels a finding of forfeiture."). In any case, we are not persuaded by this new argument. The implication of Hays's disclosure of a bot handing the player a branded pop can is that the player's character drinks it. Ex. 1005 ¶ 79. This is bolstered by Hays's description of the player's character eating a brand name energy bar to boost her power in the game. *Id.* ¶ 19.

In sum, we find that Hays teaches the preamble of claim 1 and claim limitations [1a] and [1c], even under Patent Owner's reading of the terms "for use in a mobile video game," "usable in the video game," and "the video-game content being usable when the video game operates."

The parties also dispute whether Hays teaches claim limitation [1b], "checking what updated video-game content to send based on one of the factors including a type of the mobile communication device, a telecom service associated with the mobile communication device, and a service provider of the telecom service."

Petitioner points to Hays's description of client 104 transmitting a data structure including a client type (e.g., a SKU, which can include a type of game console) to advertising request handler 210, which forwards the request to advertising matching and weighting system 220. Pet. 17 (citing Ex. 1005 ¶ 40). Petitioner contends that this client type corresponds to "a type of the mobile communication device," as recited in claim limitation [1b]. *Id.* at 17–19 (citing Ex. 1005 ¶ 23, 40, 43, 44, 51; Ex. 1003 ¶¶ 100–102). Petitioner further contends that the client can send demographic information, including an IP address. *Id.* at 17–18 (citing Ex. 1005 ¶ 44; Ex. 1003 ¶ 100). Dr. Zagal testifies that the IP address for a mobile communication device provider. Ex. 1003 ¶ 100. Petitioner contends that this corresponds to "a service provider of the telecom service," as recited in claim limitation [1b]. Pet. 18.

Patent Owner does not appear to dispute that Hays's client type, at least, corresponds to "factors including a type of the mobile communication device," as recited in claim limitation [1b]. We find that it does. Since

claim limitation [1b] recites checking "based on one of the factors," and a client type is one of the factors, we find that Hays teaches this aspect of claim limitation [1b]. Patent Owner admits that Hays's advertising matching and weighting system 220 evaluates factors recited in claim limitation [1b], such as "type of the mobile communication device," but argues that, "to the extent a specific client type is used, it is part of a weight assigned to an advertisement." Sur-reply 2.

Patent Owner disputes whether Hays's description of advertising matching and weighting system 220 teaches "checking what updated video-game content to send based on one of the factors," as recited in claim limitation [1b]. PO Resp. 9–13; Sur-reply 2–5.

According to Hays:

The advertising matching and weighting system 220 may calculate the weight of each advertisement based on several factors including campaign goal and completion data from the advertisement serving database 122 and information regarding the specific client type from the advertisement recipient database 120. The advertising matching and weighting system 220 then selects one or more advertisements from the weighted advertisement set, where the probability of an advertisement being selected is directly derived from the advertisement's assigned weight, relative to other advertisements in the set.

Ex. 1005 ¶ 43. Petitioner contends that this "discloses checking which advertisement (*i.e. updated video-game content*) to send using weights assigned to advertisements based on the 'type of game console' and demographic information associated with the service provider." Pet. 18 (citing Ex. 1003 ¶ 101).

In response, Patent Owner argues that Hays performs its matching using weights assigned to advertisements based on factors associated with

the advertisements themselves, and not any of the factors recited in claim limitation [1b]. PO Resp. 9–11; Sur-reply 2–4. Patent Owner argues that a skilled artisan

would understand that the weighting and matching system of Hays selects what advertisement to send based on factors related to the advertisement, *i.e.*, "the advertisement's assigned weight." Further, this assigned weight is "relative to other advertisements in the set," and thus the weighting is between individual advertisements.

PO Resp. 10 (quoting Ex. 1005 ¶ 43; citing Ex. 2004 ¶ 53). Patent Owner appears to argue that, because Hays compares weighted advertisements to each other, it does not teach checking the advertisements with respect to factors related to the mobile device receiving the data. *Id.* ("In contrast, the 'checking' step of 1[b] requires use of the explicitly recited factors related to the mobile communication device. These factors are related to the mobile device receiving the data, not the data itself. In contrast, Hays weights the data (i.e., the advertisements) against other advertisements for targeting purposes." (citing Ex. 2004 ¶¶ 53–55)).

Petitioner responds that Hays's "[a]dvertisements are expressly chosen based on 'the specific client type' requesting the advertisement, which includes 'a type of game console,' such as 'cellular or mobile phones." Reply 2 (citing Ex. 1005 ¶¶ 40, 51). We agree with Petitioner. Hays describes an advertising matching and weighting system that selects advertisements based on weights derived from factors that include the client's device type. Ex. 1005 ¶43. The weights, and the ultimate selection, are, thus, based on the factors including device type. We disagree with Patent Owner's argument that Hays does not base its selection on client type simply because Hays's system performs an additional check comparing

multiple advertisements, each of which has already been checked against a client device type. Hays's system checks what updated video-game content to send based, at least in part, on a type of mobile communication device because the weights are based on client type. Accordingly, Petitioner shows sufficiently that Hays teaches claim limitation [1b].

Patent Owner further argues that a skilled artisan "would also understand that Hays's matching and weighting system is distinct from the claimed 'checking' step because the 'checking' step is a compatibility determination with the user's mobile device." PO Resp. 10 (citing Ex. 2004 ¶ 54); *see also* Sur-reply 3–4; Ex. 2004 ¶ 54 (similar testimony from Dr. Akl). Patent Owner and Dr. Akl point us to nothing (and we find nothing) in the language of claim 1 or the specification to limit claim limitation [1b] to a compatibility check. Instead, as Petitioner points out, "[t]he '202 patent's specification also provides several examples of providing content without checking device compatibility. For example, 'a particular service provider may wish to provide an initial message that thanks the user." Reply 3 (quoting Ex. 1001, 10:41–42).

Patent Owner also argues that a skilled artisan "would not have been motivated to apply a method for weighing advertisements to be sent to a game console to mobile devices, given the technical limitations at the time, including bandwidth, storage, and processing limitations." PO Resp. 13 (citing Ex. 2004 ¶ 58). Similarly, Patent Owner argues that a skilled artisan would not "seek to substitute the weighting system of Hays, which relates to game consoles, into mobile communications devices, because such a substitution was not technically feasible," and would not have had a reasonable expectation of success doing so. *Id.* (citing Ex. 2004 ¶¶ 58–59).

In its "objective indicia" arguments, Patent Owner recasts these arguments as a teaching away, arguing that "the prior art taught away from providing 'updated video-game content to a mobile communication device for use in a mobile video game," and that "[a]t the time of the invention of the '202 Patent, programmers could not update any video-game content in a game on a mobile device without re-downloading an entire application." PO Resp. 55 (citing Ex. 2004 ¶¶ 47–49, 171). Dr. Akl's testimony on this point (Ex. 2004 ¶¶ 47–49, 171) does not identify the basis for his testimony; thus, it is entitled to little weight.

We do not agree with Patent Owner's arguments. First, Hays expressly describes using its weighting system in mobile devices. According to Hays:

In general, the advertisement delivery scheme enables an advertiser to deliver advertising across a range of electronic mediums including consoles (such as Sony Play Station and Microsoft Xbox), PC and Macintosh computers, wireless equipment (*cellular phones and other wireless gaming devices*) and ultimately electronic billboards and televisions.

Ex. 1005 ¶ 23 (emphasis added); *see also* Reply 4 (citing Ex. 1005 ¶ 51 ("Those skilled in the relevant art will appreciate that the invention can be practiced with other system configurations, including Internet appliances, hand-held devices, wearable computers, *cellular or mobile phones*, multiprocessor systems, microprocessor-based or programmable consumer electronics, set-top boxes, network PCs, mini-computers, mainframe computers, and the like." (emphasis added)); Ex. 1003 ¶ 103). Patent Owner argues that this passage "draws a distinction between consoles and wireless devices." Sur-reply 4 (citing Ex. 2004 ¶ 57). This argument fails as Hays

clearly describes wireless devices as employing its described advertisement delivery scheme.

Second, claim 1 is not limited to wireless devices such as cellular phones. Rather, "mobile communications devices" can include "cellular phones, PDAs, and other handheld devices capable of communication with a server." Ex. 1001, 1:12–15. Thus, game consoles are included within the scope of claim 1, so long as they are capable of communicating with a server (and this is not limited to communication via a cellular network).

Finally, at the oral hearing, Patent Owner argued that "[at] most Hays uses information about a client type to weight and rank advertisements. And that's done before any request for updated content is received." Tr. 41:20– 22. Patent Owner then made clear that it was arguing that claim 1 has a required order to its steps:

Receiving the requests for the updated videogame content and then checking what updated video content to send and then uploading updated videogame content. So just from the structure of the claim then I certainly know what the case law is about order of operations. But, I mean, here the claim is explicit that there is a request, they're then checking what to send, and then there is uploading what's been decided upon to send.

And so, yes, we believe that from the plain language of the claim the checking step is after the request is received for updated content. And that's simply not done in Hays.

Id. at 42:10–19.

Patent Owner did not make this argument either in its Patent Owner Response or its Sur-reply. Thus, Patent Owner has forfeited this argument. *See Google*, 980 F.3d 858 at 863. Moreover, even if we were to consider Patent Owner's new argument, it fails because Hays describes the order

Patent Owner would impose on claim 1. For example, Hays states that "the advertisement recipient client 104 requests advertisements for delivery to one or more available ad units within the client software application." Ex. 1005 ¶ 40. Then, "[t]he advertising request handler 210 forwards this request to an advertising matching and weighting system 220. The advertising matching and weighting system 220 processes the request and produces a set of one or more matched advertisements to be displayed for each available ad unit, specified within the client's request." *Id.* Thus, Hays expressly describes receiving a request from client 104 before advertising matching and weighting system 220 calculates weights and selects advertisements (*id.* ¶43). Thus, even if Patent Owner's proposed order of steps were necessary or correct, Hays teaches that order.

In sum, we find that Hays teaches claim limitation [1b]. See, e.g., Ex. 1005 \P 43. Thus, Hays teaches each limitation of claim 1.

Regarding claim 2, Petitioner contends that Hays's example of a game character holding a can of Pepsi teaches that "the updated video-game content is promotional content." Pet. 21 (citing Ex. 1005 ¶ 79; Ex. 1005 ¶ 107). We agree and find that Hays teaches the additional limitation of claim 2.

Regarding claim 3, Petitioner contends that Hays's system includes information about the technical media formats accepted by each client and checks whether an advertisement is specifically approved for the client. *Id.* at 21–22 (citing Ex. 1005 ¶¶ 42–43; Ex. 1005 ¶¶ 108–110). We agree, and find that Hays teaches the additional limitation of claim 3.

Regarding claim 7, Petitioner contends that the display for a predetermined period of time is shown by examples in Hays of

advertisement campaigns based on seasons, specific dates, and specific times of day. *Id.* at 28 (citing Ex. 1005 ¶¶ 23, 57; Ex. 1003 ¶ 124). We agree and find that Hays teaches the additional limitation of claim 7.

Regarding claim 8, Petitioner contends that location-based content selection is shown by examples in Hays of advertising targeted based on the geographic location (e.g., GPS coordinates) of the client. *Id.* at 29–30 (citing Ex. 1005 ¶¶ 30, 44; Ex. 1003 ¶¶ 125–126). We agree and find that Hays teaches the additional limitation of claim 8.

Regarding claim 9, Petitioner argues that Hays teaches targeting advertisements based on demographic characteristics of the player, such as age, sex, geographic location, and purchasing habits. *Id.* at 30 (citing Ex. 1005 \P 44; Ex. 1003 \P 127). We agree and find that Hays teaches the additional limitation of claim 9.

Patent Owner does not offer argument or evidence disputing that Hays teaches the additional limitations of claims 2, 3, and 7–9. *See* PO Resp. 20.

Petitioner additionally cites Choi for claim limitation [1b] and claim 8. Pet. 30–36. Because Petitioner's showing is sufficient for Hays alone, we need not address further Petitioner's additional contentions for Choi.

b. Claim 4

Claim 4 depends from claim 1 and adds "the step of sending information to the mobile communication device as part of the updated content, the information providing an in-game placement location associated with the updated video-game content."

Petitioner contends that Hays's advertisement server identifies and sends to the client pre-designated geometry within a game (e.g., billboards and storefront signs) and advertisements to place in the locations specified by the geometry. Pet. 23–24 (citing Ex. 1005 ¶¶ 18, 29; Ex. 1003 ¶¶ 111–113). Petitioner argues that advertisement server 114 specifies which advertisements are for which specific ad units. *Id.* at 23 (citing Ex. 1005

¶ 29). Specifically, Hays states that

the advertisement server 114 may fulfill requests received from the advertisement recipient client 104 for advertisements and associated media, including supporting advertisement requests from the advertisement recipient client 104. This may include handling initial connections, providing requested lists of advertisements for specific available ad units, serving media, etc.

Ex. 1005 \P 29. According to Dr. Zagal, "[b]ecause the server sends a list of multiple advertisements, the client device would need to know which ad units those advertisements were intended to be used on." Ex. 1003 \P 113.

Petitioner (Pet. 24) also points to Hays's description that

advertisers use insertion orders to contract with the advertisement management service to place advertisements within a game, a game Zone, or specific available ad unit for a defined period of time and view frequency. For example, a company may request its logo to be placed on any panel trucks in Zone 7 of the game "Driving Frenzy" (a fictional game) for the next three weeks but no more than three times per game session for a total of 1 million impressions.

Ex. 1005 ¶ 57. Dr. Zagal testifies that "the ad unit requested by the advertiser is also sent to the mobile communication device because that is the only way for the device to know which ad unit (*i.e.* the claimed 'in-game placement location') the advertiser chose for its advertisement." Ex. 1003 ¶ 114.

Patent Owner admits that Hays's advertisements are placed in specific ad units, or pre-designated geometry within a game. PO Resp. 20 (citing Ex. 1005 ¶ 18). Nevertheless, Patent Owner argues, Hays does not disclose transmitting any information regarding the placement location of an ad unit. *Id.* at 21 (citing Ex. 2004 ¶¶ 77–78). Patent Owner (*id.*) relies on disclosure in Hays that

advertisement opportunities may be offered to advertisers based on standardized available ad units, which may include, for example signs (e.g., a billboard, poster, or other form of static sign regardless of its location), structure (e.g., an image mapped onto a building, such as a branded fast food storefront (McDonald's, Dunkin' Donuts, Baskin Robbins, Dominos Pizza), retail store (Gap, Target, Foot Locker, Blockbuster), a bank (Citibank, Chase), or other location (movie theatre, etc.)), logos (e.g., a logo placed on clothing worn by game characters (T-shirts, hats, sports gear) or on objects interacted within the game context (logo on car, on skateboard, on computer monitor, or on a cell phone used by character) or other smaller environments where branding is more appropriate), packaging (e.g., packaging for products within the game such as cans, wrappers, bags, etc. (for example, a pizza box, vending machine, etc.)), and menus/loading pages (e.g., an image that appears on the loading page of a game (the loading page is the screen that appears while the gamer waits for a game to load in the console or PC or on any menu pages in the game, such as at the start of a game)).

Ex. 1005 ¶ 73. Patent Owner argues that Hays makes clear that standardized ad units are not related to any specific in-game placement location. PO Resp. 21 (citing Ex. 1005 ¶¶ 73–74; Ex. 2004 ¶¶ 77–78).

This description does not support Patent Owner's argument that advertisement server 114 does not send in-game placement locations for the advertisements it serves. Rather, Hays describes that advertisers can create advertisements for ad units of standardized type. Reply 8–9 (citing Ex. 1005

¶¶ 73–74). For example, an advertiser can create an advertisement intended for a poster in the game, without knowing at the time of ad creation which poster in the game it might appear on. See, e.g., Ex. 1005 ¶ 74 ("The use of standardized available ad units facilitates the sale of advertising that spans across multiple games/titles because one advertisement can fit into many available ad units of a standard advertisement unit type."). We agree with Petitioner, however, that when the advertisement server sends the advertisement to the mobile device, "the device still needs to know the ingame location to display the advertisement." Id. at 9. Moreover, advertisers can place advertisements in specific ad units via insertion orders. Ex. 1005 ¶ 57. Thus, Hays's statement that advertisers can create standardized advertisements does not suggest that advertisers do not specify precisely where their advertisements will be displayed. In any case, Hays describes sending lists of advertisements for specific available ad units. Id. ¶ 29. The logical implication is that the lists specify which ad unit each advertisement is assigned. Thus, we find that Hays teaches "the information providing an in-game placement location associated with the updated video-game content."

Patent Owner also argues that any location information is not part of the updated content in Hays. *See* PO Sur-reply 9 ("[W]hile Hays describes predesignated locations for 'ad units,' it never discloses 'send[ing] information to the mobile communication device regarding the in-game placement location of the content,' much less 'the information being part of the updated content." (emphasis omitted) (citing Ex. 2004 ¶¶ 75–80). We disagree and find that Hays's disclosure of sending ads with specific placement information teaches that the location information is part of the

updated content. See Ex. $1005 \ \mbox{\P} 29$ (disclosing "providing requested lists of advertisements for specific available ad units").

In sum, we find that Hays teaches the additional limitation of claim 4.

Petitioner additionally cites Chu for claim 4. Pet. 36–40. Because Petitioner's showing is sufficient for Hays alone, we need not address further Petitioner's additional contentions for Chu, or for Choi and Chu.

c. Claim 5

Claim 5 depends from claim 1 and adds "the step of tracking what has been uploaded to the mobile communication device." Petitioner contends that Hays describes an active session database that tracks and records all communications and data sent to and received from the client. *Id.* at 25–26 (citing Ex. 1005 ¶ 25, 38, 45; Ex. 1003 ¶ 116–118).

In one example, Hays describes that

the advertisement recipient client 104 begins by establishing or joining a session with the advertisement server 114. Establishing this session may create a record in the active session database 124, 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. 1005 ¶ 38. Hays continues:

The data in the active session database 124 records the advertisements that have been delivered to a session, and may serve multiple purposes. For example, the advertising matching and weighting system 220 may use this data along with impression data, also stored in the active session data base 124, to allow frequency caps (e.g. a limit as to a number of times a particular advertisement is displayed in a single game session or level/location in the game).

Id. ¶ 45.

Patent Owner argues that Hays does not teach tracking what data has been uploaded to the mobile communication device because the tracking and recording described by Hays "at most only represent[s] a portion of any data uploaded to a mobile communication device" and "would not represent all of the uploaded content that . . . was uploaded to a mobile communications [] device in its entirety." PO Resp. 22 (citing Ex. 1005 ¶ 45; Ex. 2004 ¶¶ 81– 84). Patent Owner contends that data recorded for an active session only includes data for a period the user is playing a game. *Id.* at 22–23 (citing Ex. 1005 ¶¶ 38, 45; Ex. 2004 ¶ 81). Dr. Akl testifies that "Hays's tracking and recording is based on a session and not the content that has been uploaded to the mobile communications device, which may not be used and thus not tracked in a single session." Ex. 2004 ¶ 81; *see also* Sur-reply 10 ("This is not met by a session, which would represent only a portion of any data uploaded." (citing Ex. 1005 ¶ 45; Ex. 2004 ¶ 81)).

We do not agree with Patent Owner's argument. First, Patent Owner's argument assumes that claim 5 requires tracking everything that is uploaded to the mobile communication device. Tr. 55:9–22. The claim language, however, merely recites "tracking what has been uploaded to the mobile communication device." On its face, this language only requires tracking some of the content uploaded to the mobile communication device. Patent Owner admits that Hays describes tracking at least "a portion of any data uploaded." Sur-reply 10. We find this sufficient to teach "tracking what has been uploaded to the mobile communication device."

Second, as Petitioner observes (Reply 10), Hays expressly describes "track[ing] and record[ing] all communications and data sent to and received from the advertisement recipient client 104" in an active session. Ex. 1005 ¶ 38. Petitioner argues that "the session begins when the player logs in and ends when they log-out," and, "[a]s a result, all 'updated video-game content' uploaded to the player's device is tracked." Reply 10 (citing Ex. 1005 ¶¶ 38–39). We agree with Petitioner. Even if claim 5 requires tracking everything that is uploaded to the mobile communication device, Hays teaches it. Specifically, Hays "track[s] and record[s] *all communications and data* sent to and received from the advertisement recipient client 104." Ex. 1005 ¶ 38 (emphasis added).

Patent Owner further argues that "the system of the '202 Patent needs to track what has been uploaded to the mobile device, whereas an ad system like Hays, tracks only what has been seen by the user." PO Resp. 23 (citing Ex. 2004 \P 82). As explained above, claim 5 does not require tracking everything uploaded to the mobile communication device. But even if it did, Hays's system tracks all communications and data uploaded to the mobile communication device, Ex. 1005 \P 38.

Patent Owner argues that, in Hays, data are also "sent to the device outside of a particular session." PO Sur-reply 11 (citing Ex. 1005 ¶ 38). Hays's paragraph 38 discusses tracking communications in a session, but it does not disclose any communications sent outside of a session, and Patent Owner directs us to no disclosure in Hays of this happening. Even when Hays discloses "offline play" and downloads "in the background," a session is created. For example, Hays discloses the following:

For "offline play" the advertisement recipient client 104 is not constantly communicating with the advertisement management service system 108. In such a scenario, the advertisement recipient client 104 connects to the advertisement management service system 108, *starts a session*, requests and retrieves flights and media, and caches this information locally.... Later, when the advertisement recipient client 104 reconnects to the advertisement management service system 108, it contacts the impression server 116, flushes all cached view and impression data, and then *ends the session*.

Ex. 1005 ¶ 33; see also id. ¶ 34 ("With an offline play scenario, advertisements may be downloaded 'in the background' during times when the advertisement recipient client 104 is connected to the advertisement management service system 108, including when the gaming device is performing other tasks, such as executing a different game, operating a web browser, etc." (emphasis added)). Thus, we see nothing in Hays to support Patent Owner's argument that any communications with the mobile communication device happen outside a session.

In sum, we find that Hays teaches the additional limitation of claim 5.

d. Claim 6

Claim 6 depends from claim 1 and adds "wherein uploading updated video-game content to the mobile communication device further comprises displaying the video-game content within the game at a location based on user interaction." Petitioner cites to several examples in Hays, including Hays's description of mini games associated with specific advertised products, which are triggered and displayed when the user completes a level. Pet. 26–27 (citing Ex. 1005 ¶ 78; Ex. 1003 ¶¶ 119, 120). Petitioner further argues that Hays describes ad units, such as a McDonald's storefront that displays an ad at a particular location (the storefront), and that the location of the advertisement is based on user interaction in that the ad unit does not switch to a Citibank storefront during the middle of game play (thus location is based on the user continuing the current game play session or logging off

and starting a new session). *Id.* at 27 (citing Ex. 1005 ¶¶ 62, 80; Ex. 1003 ¶¶ 121–122).

As another example, Petitioner points to Hays's description of the advertisement management service sending a bot or agent with a branded soft drink that asks the player if they want a drink. *Id.* at 27–28 (citing Ex. 1005 ¶ 79; Ex. 1003 ¶ 123). As to this example, Dr. Zagal testifies that "[t]he location of the game character displaying the Pepsi advertisement is based on the location of the player's character, which is therefore based on the user interaction of arriving at that location," and that "the location of the staying in that location or moving to a different location." Ex. 1003 ¶ 123.

We focus, in particular, on the example of a bot offering a branded soft drink to the player. As to that example, Patent Owner argues that Hays describes displaying an advertisement based on the interaction, not displaying video game content within the game at a location based on the user interaction. PO Resp. 26 (citing Ex. 2004 ¶¶ 93–95). In the Sur-reply, Patent Owner argues that "[t]here is no indication that this game character is even displayed, much less positioned, based on user interaction." Sur-reply 13. Dr. Akl testifies that, in this example, "Hays's ad units are agnostic as to location." Ex. 2004 ¶ 94. Dr. Akl continues:

At most, this discloses a "bot or electronic agent" as a nonparty or game character that moves with a can with a Pepsi advertisement. Hays never describes that this "game character" is the user's character (the player). Thus, the actual location at which this Pepsi advertisement is displayed is not determined based on user interaction or any action by the player. This also does not disclose a location based on a user interaction because the movements of the bot are not connected to the player—the bot moves around the screen on its own. Rather, the user simply controls the movement of his or her own character. *Id.* ¶ 95.

We agree with Petitioner. Hays describes a bot with a branded soft drink ("updated video-game content") that interacts with the player by offering the player a drink. Ex. $1005 \P 79$. Thus, the location of the bot and the pop can is based on interaction with the user. Ex. $1003 \P 123$ ("The location of the game character displaying the Pepsi advertisement is based on the location of the player's character, which is therefore based on the user interaction of arriving at that location."). Indeed, Hays makes clear that the branded soft drink is "used by game characters (e.g., a brand name soft drink or energy bar)." Ex. $1005 \P 18$; *see also id.* ¶ 19 ("Some available ad units may be interactive within the game (e.g., a game character eating a brand name energy bar to boost her power in the game....")). We disagree with Dr. Akl that the location of the bot is not determined based on interaction with the player. It is displayed at a location that can be used by a player when the player interacts with it, e.g., to consume the beverage and boost power in the game.

In sum, we find that Hays teaches the additional limitation of claim 6.

Additionally, Petitioner contends that Hays and van Datta render obvious claim 6. Pet. 40–44.⁷ Petitioner cites, in particular, to van Datta's discussion of Figures 3A and 3B (reproduced above) to show that an

⁷ Petitioner also contends that Hays, Choi, and van Datta render claim 6 obvious. As noted above for claim 1, Petitioner cites Choi as an alternative for aspects of claim 1. As with claim 1, because Petitioner's showing is sufficient for Hays alone, we need not address further Petitioner's additional contentions for Choi in our consideration of claim 6.

advertisement is displayed in a location based on user interaction. *Id.* at 43–44 (citing Ex. 1009, 5:62–6:2; Ex. 1003 ¶ 161). Specifically, van Datta explains that "the user may select particular advertising content for insertion in a digital environment. For example, the user may select particular content for application to a vehicle as in the case of FIG. 3A. The user may similarly select advertisements for display on a uniform as in the case in FIG. 3B." Ex. 1009, 5:64–6:2. Van Datta continues:

Available advertisement list 400 may also comprise an environment window 440 that shows a variety of advertising assets subject to the insertion of advertising (e.g., a billboard as shown in FIG. 2 or a race car as shown in FIG. 3A). The user may, in an embodiment of the present invention, drag-and-drop an advertisement (such as may be displayed in advertisement preview window 430) into the particular advertising asset displayed in the environment window 440. The environment window 440, after identifying the asset for advertisement insertion, may request user confirmation and then present the next asset available for insertion. In some embodiments of the present invention, a family or group of assets may be displayed in the environment window 440 such that a particular selected advertisement (or related group of advertisements) is draggedand-dropped into a particular group of assets such that advertisement selection may be accelerated to allow the user to advance to actual game play in the newly populated advertisement environment.

Id. at 7:52-8:2.

Patent Owner argues that "the advertisements of van Datta are not *displayed* to an end user at a location based on that user's interaction, as claim 6 requires. Rather, van Datta discloses only assigning advertisements, not displaying advertisements, based on a user's interaction." PO Resp. 37 (citing Ex. 2004 ¶ 124–125). Dr. Akl testifies that a skilled artisan "would understand that van Datta only describes placing advertisements at a

location, but not that the location is based on a user interaction." Ex. 2004 \P 124. He continues, "Claim 6 ties the location of the updated video-game content and displaying the updated video-game content to the user interaction, which van Datta fails to disclose." *Id.* ¶ 125.

We agree with Petitioner. In the examples of Figures 3A and 3B, the player interacts with specific ad locations in a game to cause specific ads to be displayed at those locations. Patent Owner's argument and testimony to the contrary are not consistent with van Datta's description. We find that van Datta teaches "displaying the video-game content within the game at a location based on user interaction," as recited in claim 6.

Petitioner contends that a skilled artisan would have combined the teachings of Hays and van Datta based on statements in van Datta showing the benefits of allowing a user to select which advertisements to display. Pet. 41–42 (citing Ex. 1009, 1:56–59, 2:1–8; Ex. 1003 ¶ 157). Van Datta states:

Despite the ability to introduce advertising content into, for example, a video game environment, the user may often dislike an advertisement selected automatically or at random, or may wish to customize the environment or game. For example, in a racing game, a user might wish to customize his or her racecar with advertising content such as a name, logo, or other advertising for a particular product or service, as is done in real life, to enhance the appearance of the car. . . .

Many users have a genuine interest in a particular product or service, to the extent that they may wish to incorporate advertising content related to that product or service that they find appealing into their game or other digital environment. Similarly, advertisers spend considerable sums of money for the placement of advertising content in a particular game environment, and may be willing to pay more when they know that the user deems the content to be desirable.

Ex. 1009, 1:56–2:8. We find that this description in van Datta provides specific benefits of allowing a user to choose advertisements. We credit Dr. Zagal's testimony that a skilled artisan "seeking to improve Hays's advertising system would be motivated by the fact that [v]an Datta's teachings fulfill user needs for increased customization and advertiser needs for advertising the user finds desirable." Ex. 1003 ¶ 157. We also credit Dr. Zagal's testimony that implementing van Datta's interface for selecting advertisements in Hays would have been straightforward and would have been within the capabilities of a skilled artisan. *Id.* ¶ 158.

In response, Patent Owner argues that Hays discloses specific ad units on items regardless of their location and that a skilled artisan "would not have sought to modify Hays's specific ad units to require interaction from a user nor items at a particular location." PO Resp. 38 (citing Ex. 1005 ¶¶ 73– 80; Ex. 2004 ¶ 128). Patent Owner argues that Hays is "expressly agnostic to location" and that Petitioner's combination "would have been counterproductive given Hays describes placing the ad units on items, objects, or characters, which requires no interaction from a user, nor is related to a location." *Id.* (citing Ex. 2004 ¶ 128).

Patent Owner further argues that a skilled artisan would not have had a reasonable expectation of success in making the combination because "Hays teaches a method of sending unspecified ad units to unspecified systems," while "van Datta does the opposite." PO Resp. 38–39 (citing Ex. 2004 ¶ 129). Patent Owner argues that Hays seeks to avoid customization and instead seeks to serve advertisements broadly. *Id.* at 39 (citing Ex. 2004 ¶ 129).

We do not agree with Patent Owner's arguments. Instead, we are persuaded by Petitioner's argument (Reply 19) that Hays is not "agnostic" as to ad location but, rather, teaches placing ads on items, objects, and characters, all of which have locations. Ex. 1005 ¶ 46. To the extent that Patent Owner argues that Hays teaches away from the proposed combination, we see nothing to suggest that a skilled artisan would have been led in a direction divergent from the proposed combination. We agree with Petitioner (Reply 19) that Hays does not say (or suggest) that customization is undesirable. Instead, as Petitioner observes, Hays expressly states that it is directed to targeted advertising. Reply 19–20 (citing Ex. 1005, Abstract, ¶ 27; Ex. 1003 ¶ 157).

On the complete record, we find that a skilled artisan would have had reasons, with rational underpinning, to combine the teachings of Hays and van Datta.

In sum, we find that Hays teaches the additional limitation of claim 6. We further find that Hays and van Datta teach the additional limitation of claim 6 and that a skilled artisan would have had reasons, with rational underpinning, to combine Hays and van Datta.

3. Objective Indicia of Non-obviousness

Patent Owner argues that, before June 2007, there was a long-felt need for the '202 patent's invention. PO Resp. 52–53. "Evidence of a long-felt but unresolved need can weigh in favor of the non-obviousness of an invention because it is reasonable to infer the need would not have persisted had the solution been obvious." *Apple Inc. v. Samsung Elecs. Co.*, 839 F.3d 1034, 1056 (Fed. Cir. 2016).

Patent Owner argues that "real-world evidence, including evidence cited by Petitioner, shows that mobile phone developers experienced difficulty with creating new features or levels in game that would not require significant space associated with downloading an entire new game." PO Resp. 52–53 (citing Ex. 2004 ¶ 170). Patent Owner argues that app stores were not available and that each wireless carrier had to manage its own offering of mobile games. Id. at 53 (citing Ex. 2004 ¶¶ 170–171). According to Patent Owner, in the context of mobile gaming, "the only way in which games could be 'updated' was to download a new version of the game in its entirety." Id. (citing Ex. 2004 ¶ 171). Patent Owner argues that the '202 patent "solved this problem by sending updated video-game content without requiring that the game be downloaded anew and in its entirety," and that claim 1 provides the nexus between the long-felt need and the claimed invention by reciting uploading "updated video-game content to a mobile communication device for use in a mobile video game." Id. (citing Ex. 2004 ¶¶ 169–171). Patent Owner also argues that, at the time of the invention, "programmers could not update any video-game content in a game on a mobile device without re-downloading an entire application." *Id.* at 55 (citing Ex. 2004 ¶¶ 47–49, 171).

As to the evidence Petitioner included in its discussion of the background of the technology, Patent Owner argues that it confirms that, prior to the '202 patent's June 26, 2007, priority date, the '202 patent's invention was novel. PO Resp. 54 (citing Ex. 1015, 1; Ex. 2004 ¶ 175). Patent Owner also cites to Exhibits 1016, at 2 ("[t]his paper suggests advertisers should experiment with in-game advertising to gain skills that could become vital in the near future"), and 1017, at 1 ("[i]n the near future,

mobile in-game advertising will become increasingly attractive for providers of mobile phones"), arguing that they suggest the novelty of and long-felt need for the '202 patent's invention. *Id.* Patent Owner also cites Exhibit 1018, at 50 ("[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 real-time interactivity") and 52 ("life cycle[s] of [] certain game[s] will [be] quite short, and will be replaced by more trendy games very promptly") as evidence that in-game content updates were needed before the claimed invention of the '202 patent. *Id.* at 54–55 (citing Ex. 2004 ¶ 175).

These arguments are unpersuasive. As Patent Owner admits, "[g]ame development in other contexts (e.g., console games) did not face the same issues." Id. at 53 (citing Ex. 2004 ¶ 171). Patent Owner's argument depends on limiting "mobile communication device" to cellular phones. However, mobile communications devices are not limited to cellular phones and can include "PDAs, and other handheld devices capable of communicating with a server," Ex. 1001, 1:12–15. Moreover, Hays expressly describes uploading updated video-game content (rather than an entire new game) to cellular phones. See, e.g., Ex. 1005 ¶ 23 ("In general, the advertisement delivery scheme enables an advertiser to deliver advertising across a range of electronic mediums including consoles (such as Sony Play Station and Microsoft Xbox), PC and Macintosh computers, wireless equipment (cellular phones and other wireless gaming devices) and ultimately electronic billboards and televisions."). Patent Owner acknowledges that mobile ad updates were already in the prior art by arguing that "Choi is directed to sending advertisements in 'pre-existing mobile applications." PO Resp. 31 (citing Ex. 2004 ¶ 108; Ex. 1006, Title).

Thus, the record shows that the alleged long-felt need identified by Patent Owner was already met by Hays. *See Geo. M. Martin Co. v. All. Mach. Sys. Int'l LLC*, 618 F.3d 1294, 1305 (Fed. Cir. 2010) ("The record shows, however, that this 'need' had been met by prior art machines such as the Pallmac and the Visy that could break more than one bundle at a time."); *see also Yita LLC v. MacNeil IP LLC*, 69 F. 4th 1356, 1364 (Fed. Cir. 2023) ("[O]bjective evidence of nonobviousness lacks a nexus if it exclusively relates to a feature that was known in the prior art.").

Moreover, we agree with Petitioner that Patent Owner's evidence (Exs. 1015–1018) shows no more than the industry's desire for more ingame advertising. Reply 24. None of these references suggest a long-felt but unmet need for uploading "updated video-game content to a mobile communication device for use in a mobile video game," or provide a nexus between such a need and the claimed invention.

In sum, we find that Patent Owner's evidence of objective indicia of non-obviousness, specifically, a long-felt but unmet need, is particularly weak and entitled to little weight.

4. Conclusions of Obviousness

In sum, as detailed above, Hays teaches each limitation of claims 1–9. Additionally, Hays and van Datta teach each limitation of claim 6. Patent Owner's evidence of objective indicia of nonobviousness, namely, of longfelt but unmet need, is particularly weak. Upon consideration of all the evidence, we conclude that Petitioner has proved by a preponderance of the evidence that claims 1–9 would have been obvious over Hays and that claim 6 would have been obvious over Hays and van Datta.

E. Obviousness Grounds Including Levkovitz

Petitioner contends that claims 1–3 and 5–9 would have been obvious over Levkovitz; that claim 4 would have been obvious over Levkovitz and Chu; and that claim 6 would have been obvious over Levkovitz and van Datta. Pet. 1. Because Petitioner's showing is sufficient for Hays alone (and, for claim 6, Hays and van Datta), we need not address further Petitioner's additional contentions for Levkovitz, Chu, and van Datta. *See* 35 U.S.C. § 318(a) ("If an inter partes review is instituted and not dismissed under this chapter, the Patent Trial and Appeal Board shall issue a final written decision with respect to the patentability of any patent claim challenged by the petitioner and any new claim added under section 316(d)."); *Bos. Sci. Scimed, Inc. v. Cook Grp. Inc.*, 809 F. App'x 984, 990 (Fed. Cir. 2020) (nonprecedential) ("We agree that the Board need not address issues that are not necessary to the resolution of the proceeding.").

IV. CONCLUSION⁸

Petitioner has proved by a preponderance of the evidence that claims 1–9 would have been obvious over Hays and that claim 6 would have been

⁸ 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 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).

obvious over Hays and van Datta. The outcome for the challenged claims of this Final Written Decision follows. In summary:

Claim(s)	35 U.S.C. §	Reference(s)/ Basis	Claim(s) Shown Unpatentable	Claim(s) Not Shown Unpatentable
1–9	103(a)	Hays	1–9	
1–9	103(a)	Hays, Choi ⁹		
4	103(a)	Hays, Chu ¹⁰		
4	103(a)	Hays, Choi, Chu ¹¹		
6	103(a)	Hays, van Datta	6	
6	103(a)	Hays, Choi, van Datta ¹²		
1-3, 5-9	103(a)	Levkovitz ¹³		
4	103(a)	Levkovitz, Chu ¹⁴		

⁹ As explained above, because we determine that challenged claims 1–9 are unpatentable over Hays, we decline to address this ground.

¹⁰ As explained above, because we determine that challenged claim 4 is unpatentable over Hays, we decline to address this ground.

¹¹ As explained above, because we determine that challenged claim 4 is unpatentable over Hays, we decline to address this ground.

¹² As explained above, because we determine that challenged claim 6 is unpatentable over Hays and over Hays and van Datta, we decline to address this ground.

¹³ As explained above, because we determine that challenged claims 1–3 and 5–9 are unpatentable over Hays, we decline to address this ground.

¹⁴ As explained above, because we determine that challenged claim 4 is unpatentable over Hays, we decline to address this ground.

Claim(s)	35 U.S.C. §	Reference(s)/ Basis	Claim(s) Shown Unpatentable	Claim(s) Not Shown Unpatentable
6	103(a)	Levkovitz, van Datta ¹⁵		
Overall Outcome			1–9	

V. ORDER

It is hereby:

ORDERED that claims 1–9 of the '202 patent are unpatentable;

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.

¹⁵ As explained above, because we determine that challenged claim 6 is unpatentable over Hays and over Hays and van Datta, we decline to address this ground.

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