

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DRAFTKINGS INC.,
Petitioner,

v.

AG 18, LLC,
Patent Owner.

IPR2022-01442
Patent 10,497,220 B2

Before JOSIAH C. COCKS, GEORGE R. HOSKINS, and
FRANCES L. IPPOLITO, *Administrative Patent Judges*.

COCKS, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining All Challenged Claims Unpatentable
35 U.S.C. § 318(a)
Denying Petitioner's Motion to Exclude
Dismissing Patent Owner's Motion to Exclude
37 C.F.R. § 42.64

I. INTRODUCTION

Petitioner, DraftKings, Inc., (“Petitioner”), filed a Petition (Paper 1, “Pet.”) requesting *inter partes* review of claims 1–30 (“the challenged claims”) of U.S. Patent No. 10,497,220 B2 (Ex. 1001, “the ’220 patent”). Patent Owner, AG 18, LLC d/b/a/ Arrow Gaming (*see* Paper 3, 1) (“Patent Owner”), filed a Preliminary Response. Paper 11. After considering the parties’ filings, we instituted *inter partes* review. Paper 13, “Institution Decision” or “Inst. Dec.” Subsequently, Patent Owner filed a Patent Owner Response. Paper 20, “PO Resp.” Petitioner filed a Reply (Paper 24, “Pet. Reply”), and Patent Owner filed a Sur-reply (Paper 26, “PO Sur-reply”).

Each party also filed: (1) a Motion to Exclude (Papers 31, 32), (2) a corresponding Opposition to the respective Motion (Papers 33, 34); and (3) a corresponding Reply to the respective Opposition (Papers 35, 36).

We heard oral argument on December 13, 2023, and a transcript of that argument has been entered into the record. Paper 38 (“Tr.”)

We have jurisdiction under 35 U.S.C. § 6(b)(4) and § 318(a). This Decision is a Final Written Decision under 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73 as to the patentability of claims 1–30 of the ’220 patent. We determine Petitioner has shown by a preponderance of the evidence that claims 1–30 are unpatentable.

A. Real Parties-In-Interest

Petitioner identifies itself, DraftKings Inc., a Nevada corporation, and Crown Gaming Inc., as real parties-in-interest. Pet. 4.¹ Patent Owner identifies itself as the only real party-in-interest. Paper 3, 1.

B. Related Matters

The parties state that the '220 patent is the subject of *AG 18, LLC v. DraftKings, Inc.*, Case No. 2-21-cv-15737 (D.N.J.). Pet. 4; Paper 3, 1.

There are four other IPR proceedings challenging patents related to the '220 patent. They are IPR2022-01445 (U.S. Patent No. 11,024,131 B2); IPR2022-01446 (U.S. Patent No. 9,978,205 B2); IPR2022-01447 (U.S. Patent No. 9,613,498 B2); and IPR2022-01448 (U.S. Patent No. 10,614,657 B2).

C. The '220 Patent

The '220 patent is titled "Location Based Restrictions On Networked Gaming." Ex. 1001, code (54). The Abstract of the '220 patent is reproduced below:

A system and method for peer-to-peer gaming is described. One embodiment includes a system for peer-to-peer gaming, the system comprising an at least one gaming client, wherein the at least one gaming client is configured to accept a selection of an at least one gaming option from a player, and allow the player to play a game based on the selection of the at least one gaming option; an administration server, wherein the administration server is configured to receive the selection of the at least one gaming option from the at least one gaming client, and initiate the game for the player based on the selection of the

¹ Petitioner states that it and Crown Gaming Inc. are wholly-owned subsidiaries of Draft Kings Inc., a Nevada corporation. Pet. 4.

at least one gaming option; and an at least one gaming server, wherein the at least one gaming sever is configured to run the game and transmit data about the game to the administration server.

Id. at code (57).

Figure 1 of the '220 patent is reproduced below:

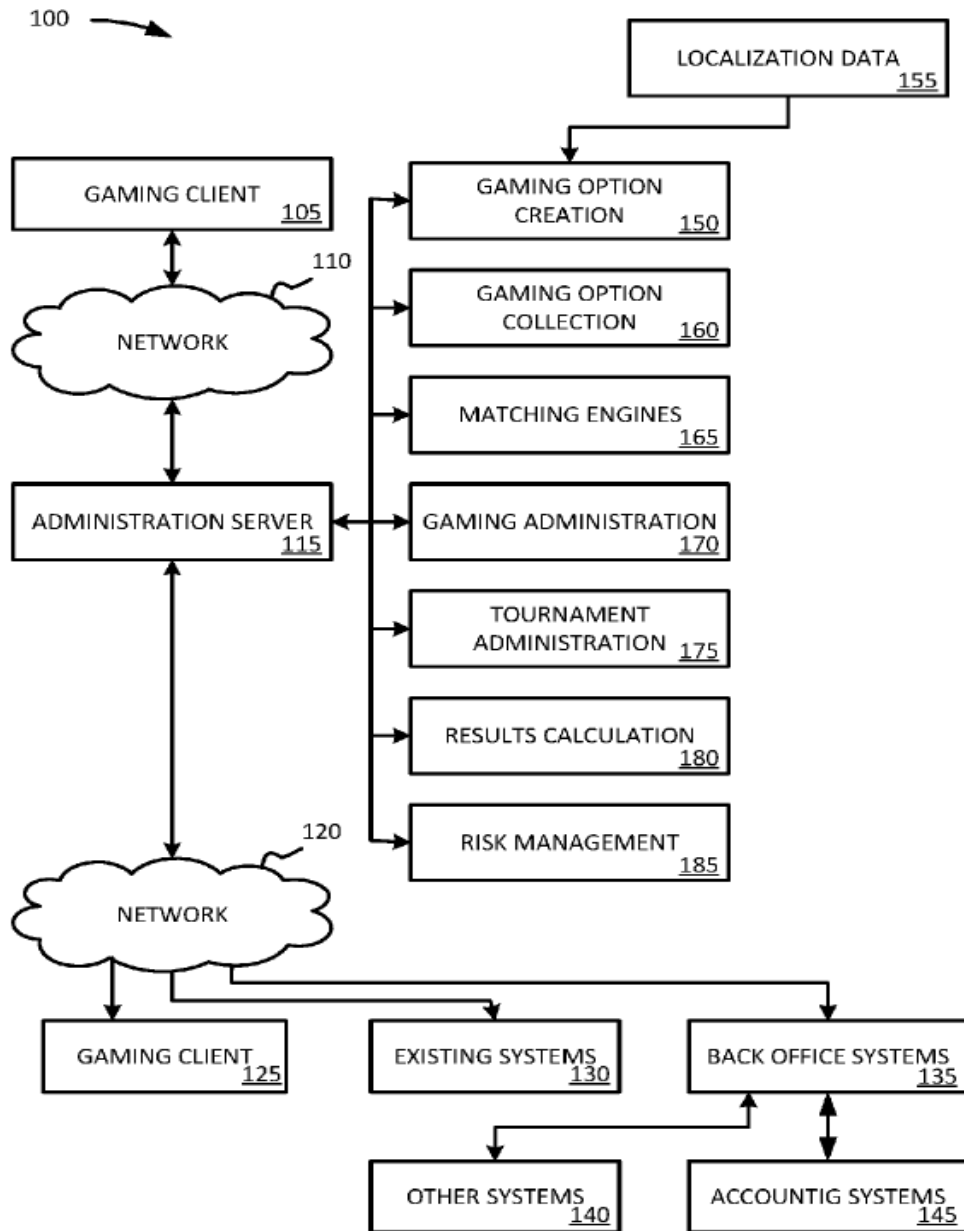


FIG. 1

Figure 1 above “illustrates a high level network architecture of some embodiments of a system for peer-to-peer gaming.” *Id.* at 3:12–13.

Administration server 115 can include or be communicably coupled to various “modules” for performing functions of the gaming system, such as gaming option creating module 150, gaming option collection module 160, matching engine module 165, game administration module 170, tournament administration module 175, results calculation module 180, and risk management module 185. *Id.* at 7:41–46. “Gaming option creation module 150 can take information from localization data module 155 to determine which games are available on administration server 115.” *Id.* at 7:46–49.

Each of these modules can be embodied as special-purpose hardware (e.g., one or more ASICs, PLDs, FPGAs, or the like), or as programmable circuitry (e.g., one or more microprocessors, microcontrollers, or the like) appropriately programmed with software and/or firmware, or as a combination of special purpose hardware and programmable circuitry.

Id. at 8:66–9:5.²

The ’220 patent also notes that “real-money wagering” is legally permitted in some “legal gaming jurisdictions,” e.g., “Nevada and Indian reservations” but that in other jurisdictions, such real-money wagering is not permitted, or is limited. *See, e.g., id.* at 7:29–31; 10:14–16; 12:65–13:7. As a result, certain game options may not be legally available to certain users, and, thus, should not be provided to such users as an available gaming

² The acronyms “ASICs” and “PLDs,” stand, respectively, for “application-specific integrated circuits,” and “programmable logic devices.” Ex. 1001, 22:49–51. The acronym “FPGAs” does not appear to be defined in the ’220 patent, but we understand that it likely stands for: field programmable gate arrays.

option. The '220 patent describes a purpose of its disclosure addresses such a circumstance by “us[ing] information about the location of the user, such as legal jurisdiction and casino location, to determine which game options are presented to the player.” *See, e.g., id.* at 10:14–17; 13:17–20. More specifically, the '220 patent characterizes its system as a “flexible gaming platform” that can be “dynamically adjusted for localization requirements such as language, currency and legal issues.” *Id.* at 7:29–40.

D. Challenged Claims

Petitioner challenges claims 1–30 of the '220 patent (the “Challenged Claims”). Claims 1, 8, 15, 21, and 30 are independent claims. Claim 8 is representative and is reproduced below:

8. A gaming system comprising:
 - [a] at least one processor;
 - [b] at least one communication interface; and
 - [c] a memory containing a plurality of program instructions configured to cause the at least one processor to:
 - [d] estimate a current location of a player using the gaming system;
 - [e] dynamically create a customized list of available games for a player at the current location of the player,
 - [f] wherein the customized list of available games restricts limits on wagers in those games based on the current location of the player; and
 - [g] wherein the limits on wagers are set to non-monetary based wagering when the current location restricts monetary gambling;
 - [h] present the customized list of available games to a player gaming client through the communication interface;
 - [i] receive, from the player gaming client through the communication interface, a selection of a game from the customized list of available games;
 - [j] initiate the game; and
 - [k] compensate the player with player winnings.

Ex. 1001, 27:9–31 (lettering [a] through [k] added for convenience of reference to the limitations of the claim).³

E. Alleged Grounds of Unpatentability

Petitioner asserts the following grounds of unpatentability:

Ground No.⁴	Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1	8, 9, 14–16, 19	102	Bryson ⁵
2	8, 9, 14–16, 19	103	Bryson “in view of the knowledge of a [person of ordinary skill in the art]” ⁶
3	1–3, 6, 26–30	103	Bryson, Harkham ⁷
4	10, 17, 20	103	Bryson, Amaitis ⁸
5	4, 7, 25	103	Bryson, Harkham, Amaitis
6	11–13, 18	103	Bryson, Schlottmann ⁹
7	5	103	Bryson, Harkham,

³ We use the same lettering designations as appears in the Petition. *See* Pet. 7–8.

⁴ For referencing convenience, we identify the grounds as numbers 1 through 8, which is the same numbering scheme applied by both parties. *See, e.g.*, Pet. 14; PO Resp. i–ii.

⁵ U.S. Patent No. US 8,460,109 B2 issued June 11, 2013 (“Bryson,” Ex. 1004).

⁶ *See* Pet. 14.

⁷ U.S. Patent Application Publication No. US 2002/0094869 A1 published July 18, 2002 (“Harkham,” Ex. 1008).

⁸ U.S. Patent Application Publication No. US 2007/0054739 A1 published Mar. 8, 2007 (“Amaitis,” Ex. 1005).

⁹ U.S. Patent Application Publication No. US 2007/0298857 A1 published Dec. 27, 2007 (“Schlottmann,” Ex. 1006).

Ground No. ⁴	Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
			Amaitis, Oberberger ¹⁰
8	21–24	103	Bryson, Frenkel, ¹¹ Amaitis

Pet. 14. In addition to the references listed above, Petitioner relies on the Declaration of Mark C. Nicely (Ex. 1003). In challenging the above-noted grounds as a part of the instituted *inter partes* review, Patent Owner relies on the Declaration of Dr. Stephen H. Lane (Ex. 2005).

II. ANALYSIS

A. Principles of Law

To establish anticipation under 35 U.S.C. § 102, “all of the elements and limitations of the claim must be shown in a single prior art reference, arranged as in the claim.” *Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1383 (Fed. Cir. 2001). A patent claim is unpatentable as anticipated under 35 U.S.C. § 102 “if each and every limitation is found either expressly or inherently in a single prior art reference.” *WhitServe, LLC v. Computer Packages, Inc.*, 694 F.3d 10, 21 (Fed. Cir. 2012) (quoting *Celeritas Techs., Ltd. v. Rockwell Int’l Corp.*, 150 F.3d 1354, 1361 (Fed. Cir. 1998)).

A claim is unpatentable under § 103(a) 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

¹⁰ U.S. Patent Application Publication No. US 2009/0088253 A1 published Apr. 2, 2009 (“Oberberger,” Ex. 1009).

¹¹ U.S. Patent Application Publication No. US 2007/0015584 A1 published Jan. 18, 2007 (“Frenkel,” Ex. 1007).

person having ordinary skill in the art to which said subject matter pertains. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved 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) when in evidence, objective indicia of non-obviousness (i.e., secondary considerations). *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).¹²

In an instituted *inter partes* review, a petitioner has the burden to show unpatentability by a preponderance of the evidence. 35 U.S.C. § 316(e). The burden of persuasion never shifts to Patent Owner. *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015).

B. Level of Ordinary Skill in the Art

In determining the level of ordinary skill in the art, we consider the “type of problems encountered in the art, the prior art solutions to those problems, the rapidity with which innovations are made, the sophistication of the technology, and the educational level of active workers in the field.” *Custom Accessories, Inc. v. Jeffrey-Allan Indus. Inc.*, 807 F.2d 955, 962 (Fed. Cir. 1986); *Orthopedic Equip. Co. v. U.S.*, 702 F.2d 1005, 1011 (Fed. Cir. 1983).

Petitioner contends the following in connection with the level of ordinary skill in the art:

¹² Neither party has presented any objective indicia of non-obviousness in connection with this proceeding.

A person of ordinary skill in the art (“POSITA”) at the time of the ’220 Patent would be a person with a bachelor’s degree in computer engineering, electrical engineering, computer science, applied mathematics, or a similar field, and at least two years of experience in the development of gambling game hardware or software functionality. A person with less education but more relevant practical experience may also meet this standard.

Pet. 20 (citing Ex. 1003 ¶ 30).

During trial, Patent Owner did not offer its own assessment of a level of ordinary skill in the art or dispute Petitioner’s proposed level of skill.¹³ For purposes of the Institution Decision, we determined that Petitioner’s assessment was reasonable and consistent with the prior art and the ’220 patent. Inst. Dec. 15. We do not see any need to revisit that determination and adopt Petitioner’s assessment for this Final Written Decision.

C. Claim Construction

We construe claims in the same manner used 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). When applying that standard, we interpret the claim language as it would have been understood by one of ordinary skill in the art in light of the specification. *Wasica Fin. GmbH v. Cont’l Auto. Sys., Inc.*, 853 F.3d 1272, 1279–80 (Fed. Cir. 2017). Thus, we give claim terms their

¹³ In the Institution Decision, we observed that Patent Owner had not disputed Petitioner’s proposed level of skill in the art, but, at the time, did offer its own assessment. *See* Inst. Dec. 15. We note that the outcome of this proceeding would not change even were we to adopt the assessment of the level of ordinary skill in the art that was previously offered by Patent Owner.

ordinary and customary meaning as understood by an ordinarily skilled artisan. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc). Only terms that are in controversy need to be construed, and then only to the extent necessary to resolve the controversy. *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017).

In our Institution Decision, we addressed matters of claim construction pertaining to certain terms appearing in claims 11, 12, 18, 21, and 24. *See* Inst. Dec. 16–20. As did Petitioner, we referred to the relevant terms as the “Module Terms.” *See id.* at 16. For purposes of this Final Written Decision, we determine that it is necessary to further address the construction of the Module Terms. We also determine that it is necessary to address the construction of the claim terms or phrases “dynamically [creating/create] a customized list . . .” (the “Dynamic” limitation),^{14, 15} and “non-monetary based wagering.”

1. “*Dynamically [creating/create] a customized list . . .*”

a) *Parties’ Arguments*

Independent claim 1 is a method claim and includes a step of “dynamically creating, by an administration server, a customized list of

¹⁴ The short form designation of “the ‘Dynamic’ limitation” is proposed by Petitioner for the noted claim phrases, and is one that we adopt in this Decision for referencing convenience. *See* Pet. Reply 20.

¹⁵ In the Institution Decision, we observed: “Consistent with the prosecution history of the ’220 patent (*see, e.g.*, Ex. 1002, 242–243), Patent Owner appears to regard the term ‘dynamically’ as essentially synonymous with the term ‘automatically,’ which in Patent Owner’s view is distinguished from action by, for instance, a human operator.” *See* Inst. Dec. 26 n.19.

player gaming options for a player based, at least in part, on a current location of the player.” Ex. 1001, 26:21–24. Independent claim 8 recites “dynamically create a customized list of available games for a player at the current location of the player.” *Id.* at 27:16–21. Independent claim 30 recites “dynamically create a customized list of gambling options for the user based, at least in part, on the current location.” *Id.* at 30:7–10.

Patent Owner proposes that the above-noted claim phrases mean “on an ongoing basis, [creating/create] a selectable list of [items] that is fitting for the player at the player’s current location.” PO Resp. 5. The emphasis of Patent Owner’s proposed construction is that “the word ‘dynamically’ should be construed as ‘on an ongoing basis.’” *Id.* According to Patent Owner, its proposed construction is: (1) supported by the Specification of the ’220 patent (*id.* at 6–8 (citing Ex. 1001, Figs. 11–12, 7:46–63, 12:65–13:16, 12:30–39, 20:67–21:4, 6:1–9)); (2) consistent with the prosecution history (*id.* at 9–10 (citing Ex. 1002, “15”))¹⁶; and (3) consistent with extrinsic evidence (*id.* at 10 (citing a dictionary definition of the word “dynamically”)).

Petitioner disagrees with Patent Owner’s proposed construction of the “Dynamic” limitation. Pet. Reply 20–22. Citing to portions of the ’220 patent, Petitioner contends that “[u]se of the term ‘dynamically’ here does not require ongoing or continuous creation of a list. Instead, the ‘list’ is presented automatically, just once ‘in response to the identification of the player.’ The specification does not support [Patent Owner’s] construction.” *Id.* at 20–21 (citing Ex. 1001, 5:66–6:9). Petitioner also discounts Patent

¹⁶ Although Patent Owner refers to page “15” of Exhibit 1002, we understand Patent Owner to be referencing page 132 of Exhibit 1002 that is also page 15 of the “Response to Final Office Action” filed April 10, 2019.

Owner's reliance on the prosecution history and its proffered extrinsic evidence as not supporting Patent Owner's proposed construction. *Id.* at 21–22. Essentially, Petitioner is of the view that the record evidence of this proceeding conveys that the “Dynamic” limitation does not require ongoing or continuous creation of list, but simply that the list is provided, even if only once, automatically without action by a human operator. *See* Pet. Reply 20–22.

In its Sur-reply, Patent Owner contends that Petitioner's view on the meaning of the “Dynamic” limitation is incorrect, and maintains the construction offered in the Patent Owner Response. PO Sur-reply 16–20.

b) Discussion

Patent Owner's position that “dynamically” creating a list means that the list is somehow in the process of “ongoing” or “continuous” creation does not add clarity to understanding of the scope of claims 1, 8, and 30. In that regard, it is not apparent what is meant by “ongoing” or “continuous” list creation. Does that mean the list is never static and must be in a constant state of change? Patent Owner does not point to any record content providing context as to the frequency of list creation that would give rise to such creation being “ongoing” or “continuous.” We also do not discern that the portions of the record cited by Patent Owner, including the Specification of the '220 patent and the prosecution history, provide cogent support for Patent Owner's proposed meaning of the term “dynamically.”

At the outset, we do note that the term “dynamically” does appear in the Specification of the '220 patent. For instance, column 6 of the patent describes that player profiles “can be used to dynamically present customized gaming options on player terminals as the players engage or are

in proximity.” Ex. 1001, 6:1–3. In another instance, the ’220 patent expresses that “customized restriction policies . . . can, in some embodiments, be dynamically set (e.g., based on location, current gaming session, etc.).” *Id.* at 21:1–4. Neither of those instances of the use of the term “dynamically,” however, conveys that the item, e.g., options or restriction policies, that are dynamically selected requires that such selection be something regarded as “ongoing” or “continuous.” Rather the use of “dynamically” in those instances establishes that what is selected occurs based on a condition, such as a player’s “proximity” or “location.” Nor does any other use the term “dynamically” in the Specification of the ’220 patent relay a meaning of “ongoing” or “continuous.”

Patent Owner additionally points to a portion of the Specification that uses the phrase “run in a loop,” which Patent Owner contends is an example showing that “the step of list creation can be continuously performed on an ongoing basis (e.g., run in a loop).” PO Resp. 7–8 (citing Ex. 1001, 12:30–39). We reproduce a portion of column 12 below (which includes the portions referenced by Patent Owner):

In FIG. 5, a flow chart represents broadly one method by which the present technology can conduct a game for a player. First, the system presents a player with a list of player gaming options 1100. Once the player has made a selection from the list of player gaming options, the system collects that selection 1200. The system then matches the player with a competitor 1300 and collects a bet from the player 1400. Next, the system initiates a game based on the selection of player gaming options 1500. Finally, after the game has completed, the system compensates the player 1600. It is not necessary that the steps run in this specific order. The steps may run out of order or be run in a loop. Additionally, the set of steps may run in a loop inside the larger method. Finally, this listing of steps is not exhaustive. Another embodiment consistent with the present technology may have a

more steps or less steps. Those having skill in the art will understand possible variations of the technology beyond these embodiments.

Ex. 1001, 12:27–39.

The above-reproduced portion describes a flow chart pertaining to various steps that form part of game playing options, including selecting a game from a list and compensating the player at the conclusion of the game. The steps may “be run out of order or run in a loop.” *Id.* That the steps as a part of game play may be “run in a loop” does not help elucidate the meaning of “dynamically” creating a customized list of player gaming options each time the creation step is repeated, contrary to Patent Owner’s assertions.

Patent Owner also points to a page of the prosecution history of the ’220 patent that is said to support its view as to the meaning of “dynamically.” PO Resp. 9 (referencing Ex. 1002, 132). As noted by Patent Owner, that page indicates that “Patent Owner added the word[s] ‘dynamically’ and ‘customized’ to the limitation in question and distinguished prior art *Miltenberger* (U.S. Pat. Pub. 2007/0202941) from its ‘pre-selected content.’” *Id.* The referenced page of Exhibit 1002 describes that “the gaming content of *Miltenberger* is clearly pre-selected by an operator in *Miltenberger*.” Ex. 1002, 132. It also describes the presence of a customized list selected based on the current location of a player. *Id.* Thus, the thrust of the content of the cited prosecution history is to distinguish the creation of a customized list based on certain considerations, e.g., player location, over the pre-selection of a game list by an operator. There is nothing intrinsic as a part of such creation of a customized list that

conveys that the list creation must be something regarded as “ongoing” or “continuous.”

Lastly, Patent Owner’s general citation of a dictionary meaning of “dynamically” as “marked by continuous usually productive activity or change” is not addressed with any adequate explanation to impart a meaning of “dynamically” from outside the context of the claims and Specification of the ’220 patent. PO Resp. 10.

In considering the entirety of the record before us, we conclude that the natural understanding of the “Dynamic” limitation of each of claims 1, 8, and 30 is that the limitation is satisfied by the presentation of a customized list of gaming options to a player where the list is created automatically, rather than by a human operator, based on a player’s location, or at least in part on the player’s location. To that end, we do not discern that the claims of the ’220 patent exclude the circumstance in which the list is created only one time for a given player based on that player’s location. The above-noted understanding is, in our view, in accord with the position offered by Petitioner on the matter. *See, e.g.*, Pet. Reply 20–22.

2. “Non-monetary based wagering” requirement

The term “non-monetary based wagering” appears in each of claims 8 and 15. Ex. 1001, 27:22–24, 63–65. More specifically, each of those claims expresses that wagers may be set to “non-monetary based wager” when a player’s location restricts monetary gambling.¹⁷ *Id.* Claim 8 further includes a recitation of “compensate the player with player winnings”

¹⁷ In claim 8, the requirement is designated as element 8[g] in this Decision.

(element 8[k]) *Id.* at 27:32. It is a potential relationship between elements 8[g] and 8[k] that gives rise to a dispute between the parties.

In particular, focusing on claim 8, Patent Owner contends that “8[k] must still be satisfied (and cannot be ignored) when 8[g] requires non-monetary wagering” such that “[t]he ability to compensate non-monetary player winnings in the face of non-monetary enforcement must be met to satisfy claim 8.” PO Resp. 14.

Petitioner disagrees that there is a link between element 8[g] and 8[k]. Pet. Reply 4–8. In a nutshell, Petitioner’s view is summed up in its statement that, as to claim 8, “[t]here is no requirement to *compensate the player* at all when monetary gambling is restricted.” *Id.* at 6.

Having considered the respective positions of the parties, and based on the record before us, we make the following evaluations. In a similar manner as we noted in the Institution Decision (*see* Inst. Dec. 31), the Specification of the ’220 patent provides ample context for the type of wagering and resulting “winnings” that are contemplated by the claims. Specifically, the ’220 patent expresses that “[w]innings could be in many forms, including, but not limited to: points, credits, or hard currency.” Ex. 1001, 11:6–8. In light of that disclosure, we assessed that “[i]ntrinsic to that description is the reasonable understanding that the type of wagering involved in game play to produce those noted winnings is expansive and includes each of monetary based wagering (e.g., hard currency) as well as non-monetary based wagering (e.g., points).” Inst. Dec. 31. In other words, the ’220 patent is readily understood to envision that where monetary gambling is restricted, but a wager is still placed, “winnings” still result that may be non-monetary in nature.

Petitioner's view that there is "no requirement" to compensate a player when monetary gambling is restricted seemingly discounts or disregards the teachings in the '220 patent (e.g., at column 11, lines 6–8) that expressly contemplate non-monetary "winnings." Indeed, to that end, Petitioner, referencing the claim construction standard of *Phillips v. AWH Corp.*, asserts the following:

[Patent Owner] confuses what is required under *Phillips* to apply a narrowing claim construction, with a broadening specification disclosure. While the cited portions of the specification and other claims may provide support for interpreting the term "player winnings" to encompass both monetary and non-monetary winnings, there is not lexicography, disclaimer or disavowal. [Patent Owner's] construction should be rejected.

Pet. Reply 7–8.

Petitioner's assertion, however, is incongruous. That "player winnings" may include each of monetary and non-monetary winnings flows readily from both the Specification of the '220 patent and the plain language of the claims. Petitioner provides little, if any, elucidation as to its reference to "lexicography, disclaimer, or disavowal" being allegedly asserted by Patent Owner. In that respect, Petitioner does not express cogently how Patent Owner is alleged to rely on lexicography, or just what matter Petitioner believes is being allegedly disclaimed or disavowed.

In our view, Petitioner's Reply injects ambiguity on this issue where no such ambiguity exists. Simply put, in the circumstance where a player is at a location prohibiting monetary gambling, claim 8 of the '220 patent, coupled with the natural understanding arising from the Specification of the '220 patent, contemplates that a player may be provided "winnings" that are understood to be non-monetary. That position is seemingly one taken by Patent Owner as a matter of claim construction. To the extent that Petitioner

disagrees with that position, we find unpersuasive Petitioner’s proposed basis for that disagreement.

The Specification of the ’220 patent recognizes that in some areas or jurisdictions real-money wagering or gambling is not permitted, and game play in such a circumstance may involve “virtual currency.” *See, e.g.*, Ex. 1001, 12:65–13:16. The Specification provides context for the type of wagering and resulting “winnings” that are contemplated where real-money wagering is not permitted including winnings in the form of “points” or “credits.” *See id.* at 11:9–11.

Accordingly, based on the record that has developed during trial, and upon due consideration of that record, we conclude that claim 8 provides that, where a player’s location dictates that monetary gambling is restricted, wagers are set to non-monetary based wagering and a player is compensated with player winnings that are non-monetary in nature, such as points or credits.

3. *The Module Terms*

In the Institution Decision, we noted the following in connection with the Module Terms:

Petitioner contends that claims 11, 12, 18, 21, and 24 include recitation of one or more “modules” that “are either ‘configured to’ perform, or that ‘oversee,’ certain recited functionality, without reciting sufficient structure for performing those functions” (the “Module Terms”). Pet. 20. As a result, Petitioner contends that the Module Terms are subject to 35 U.S.C. § 112 ¶ 6. *Id.* [footnote omitted] Petitioner provides a table identifying the ten Module Terms and also where functions claimed as a part of those terms are also described in the ’220 patent. *Id.* at 21–22. For instance, with respect to one of the Module Terms, a “gaming option creation module,” Petitioner points to description in the Specification of the ’220 patent

residing at column 7, lines 46 through 49, and column 10, lines 13 through 17. Pet. 21. Those portions of the '220 patent include description of the operation of gaming option creation module 150.

Petitioner further points to description in the '220 patent setting forth that a “‘module’ . . . ‘can be embodied as special-purpose hardware (e.g., one or more ASICs, PLDs, FPGAs, or the like), or as programmable circuitry (e.g., one or more microprocessors, microcontrollers, or the like) appropriately programmed with software and/or firmware, or as a combination.’” Pet. 22 (quoting Ex. 1001, 8:57–9:10). Petitioner, thus, contends that “the corresponding structure for each ‘module’ would include one or more processors implementing an algorithm performing these functionalities.” *Id.* (citing Ex. 1003 ¶ 125; Ex. 1001, 8:57–9:10).

Inst. Dec. 16–17.

We further observed that Patent Owner agreed that the relevant Module Terms were understood to be presented in a mean-plus-function format that invokes § 112 ¶ 6, but that Patent Owner generally disagreed with Petitioner’s proposed constructions. *Id.* at 17. For purposes of institution, we were not persuaded that Patent Owner’s arguments directed only to an exemplary one of the Module Terms, i.e., “gaming operation creation module,” was adequate to deny institution, and noted that issues pertaining to the Module Terms may be more thoroughly developed by the parties during trial. *Id.* at 17–20.

In its Patent Owner Response, Patent Owner again expresses that it “agrees” (PO Resp. 22) that the Module Terms are subject to means-plus-function interpretation, but takes the view that Petitioner’s constructions of

those terms are incorrect. *Id.* at 22–37.¹⁸ By way of example of its view during trial, Patent Owner alleges deficiency in Petitioner’s constructions in connection with a single one of the Module Terms: “tournament administration module.” *Id.* Patent Owner points to Figure 10, and its associated description at column 18, as purportedly describing “algorithmic structure” for a tournament administration module. *Id.* at 31–33. According to Patent Owner, the claim construction offered by Petitioner for the “tournament administration module” term allegedly does not account for that term’s “algorithmic structure.” *Id.* at 33–37.

a) *“tournament administration module”*

The term “tournament administration module” appears in each of claims 11, 12, 18, and 21. In the Petition, Petitioner points to content of the Specification of ’220 patent that Petitioner contends constitutes the corresponding structure for that term. Pet. 21 (citing Ex. 1001, 7:67–8:2, 17:11–14, 18:30–31).¹⁹ Those cited portions include description of “tournament administration module 175” that “can keep track of multiple games in a tournament.” Ex. 1001, 7:67–8:2, 17:11–14, 18:30–31. As we observed in the Institution Decision (Inst. Dec. 15–16), the Petition also lays out that a “‘module’ . . . ‘can be embodied as special-purpose hardware (e.g.,

¹⁸ In light of the parties’ agreement on the matter, we also interpret the Module Terms as being subject to means-plus-function interpretation as a part of this Final Written Decision.

¹⁹ The Petition uses the heading “Function Described in the Specification” in identifying the noted content of the ’220 patent. During oral argument, when queried by the panel, Petitioner indicated that the “intent” of the pertinent part of the Petition was to identify, in the Specification of the ’131 patent, the corresponding structure for the module terms. *See* Tr. 22:17–25:5.

one or more ASICs, PLDs, FPGAs, or the like), or as programmable circuitry (e.g., one or more microprocessors, microcontrollers, or the like) appropriately programmed with software and/or firmware, or as a combination.” Pet. 22 (quoting Ex. 1001, 8:57–9:10). Petitioner, thus, contends that “the disclosed structure for each ‘means for’ and ‘module’ would include one or more processors and a memory programmed to perform a particular function.” *Id.* (citing Ex. 1003 ¶ 125; Ex. 1001, 8:57–9:10).

It is notable that the content of the ’131 patent cited by Patent Owner for the “algorithmic structure” of a “tournament administration module” makes no reference to the “tournament administration module 175” described in the Specification. *See* PO Resp. 31–33 (citing Ex. 1001, Figure 10, 18:37–65). Figure 10, relied upon by Patent Owner, is expressed as illustrating “one method by which a system could implement a delayed tournament consistent with various embodiments of the present technology.” Ex. 1001, 3:41–43. The portions of column 18 that Patent Owner relies on describe Figure 10 in the context of an exemplary method of a delayed tournament process involving five hypothetical players and assessing such potential matters as (1) their entry fee payment, (2) timing of their delayed play over the course of a twenty-four hour period, and (3) pay out options at the end of game play. *Id.* at 18:37–65. Although Patent Owner generally contends that “flow diagrams” may, in some cases, provide adequate “algorithmic structure” (*see* PO Resp. 32–33), here Patent Owner does not articulate meaningfully how the description of a “method” of implementing one particular form of gameplay, i.e., a delayed tournament, that is presented in Figure 10 and column 18 constitutes “structure,” algorithmic or otherwise, for the claimed tournament administration module. Indeed, it is noteworthy

that claim 11 refers simply to “tournament administration,” which its dependent claim 12 specifies is a “delay” tournament. Ex. 1001, 27:41–47. Patent Owner does not explain persuasively why the tournament of claim 11 should be limited to a *delay* tournament.

In the Sur-reply, Patent Owner again points to the “Delayed Tournament” example described in the Specification, and also now points to a description of a “Jackpot Tournament” and characterizes them as “two exemplary tournament[s]” that are “variants of one another.” PO Sur-reply 10–11 (citing Ex. 1001, 18:22–19:32). Once again, however, left wanting from Patent Owner’s contentions is why the description of examples as to how two types of tournaments may be conducted gives rise to any identifiable “structure” as the basis for the Module Terms, specifically the “tournament administration module.”

We further observe that there is considerable ambiguity in Patent Owner’s assessment of the Module Terms, and specifically the “tournament administration module.” In the Response, Patent Owner does not seemingly state that the steps depicted in Figure 10, or the description of that Figure 10, actually describe any algorithmic structure as a part of any claim construction. In its Sur-reply, Patent Owner does state that it “discussed how the patent discloses algorithmic structure that corresponds to function performed by the tournament administration module” (*see* PO Sur-reply 9) but in the very next paragraph expresses that it “did not propose a construction” (*see id.* at 10). That ambiguity does not aid Patent Owner.

We note that the parties’ competing arguments concerning construction of the Module Terms, including “tournament administration module,” in this proceeding are certainly not a model of clarity. In considering the record before us, however, we discern that Petitioner, in the

Petition (*see* Pet. 20–22), directs attention to contents of the Specification of the '220 patent in connection with each of the Module Terms, including a “tournament administration module,” that are recognizable as identifying an algorithm that a skilled artisan would understand performs the claimed function(s). Further, those algorithm(s) are implemented by a special purpose hardware programmed to perform the disclosed algorithm(s), such as an ASIC, a PLD, an FPGA, or the like, thereby providing corresponding structure for the various modules recited in claims 11, 12, 18, 21, and 24. We note that Mr. Nicely testifies the following as to the “tournament administration module”:

[P]ursuant to § 112 ¶ 6, the foregoing structure of each claimed “module” (*i.e.*, the “programmable circuitry”) must include an algorithm that performs the corresponding function described in the specification of the '220 Patent.[footnote omitted] I therefore provide the claim chart below identifying the portions of the specification of the '131 Patent that describe the claimed functions of each recited “means for” and “module”:

Claim	Limitation	Claimed Function	Function Described in Specification
11	“tournament administration module”	overseeing tournament play	“oversee[ing] [...] tournaments” and/or “keep[ing] track of

			multiple games in a tournament" - EX[1001] 7:67-8:2, 17:11-14
12	"tournament administration module"	overseeing a delay tournament where the players are single players trying to get a highest score	"oversee[ing] [...] [delayed] tournaments" and/or "keep[ing] track of multiple games in a [delayed] tournament," wherein "[d]elayed tournaments are tournaments in which all participants need to play the game within a validity period" - EX[1001] 7:67-8:2, 17:11-14, 18:30-31
18	"tournament administration module"	overseeing at least two tournament games	"oversee[ing] [...] tournaments" and/or "keep[ing] track of multiple games in a tournament" - EX[1001] 7:67-8:2, 17:11-14

21[e]	“tournament administration module”	hosting a tournament game and communicating with the risk management module to determine whether players are colluding or exhibiting illicit behavior during a tournament game	“oversee[ing] [...] tournaments” and/or “keep[ing] track of multiple games in a tournament” - EX[1001] 7:67-8:2, 17:11-14
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Ex. 1003 ¶ 127. We understand Petitioner’s citations and Mr. Nicely’s testimony to direct us, in part, to columns 17 and 18 of the ’220 patent.

There, the ’220 patent discloses the following:

The present invention also includes systems and methods to conduct Skill-based Tournaments. Referring to FIG. 1, the Tournament Administration module 175 oversees these tournaments. While those skilled in the art will realize many variations and modifications consistent with the present invention, for purposes of description exemplary Skill-based Tournaments are described herein.

Ex. 1001, 17:11–17.

In the subsequent sections, the ’131 patent describes how a tournament may be managed by the Tournament Administration module. In one example, the “players could select tournament play and be presented with a list of available tournaments.” *Id.* at 17:24–26. Then, “a tournament player, such as Player 1, can join any ‘Table’ that is not full of players.” *Id.* at 17:37–38. Once a player makes a table selection, the player will be “seated” and the player’s account may be deducted for an entry fee. *See id.* at 17:42–44. The ’220 patent also discloses that the tournament could begin

after preconditions are met such as the required number of players are seated, or a predetermined time is reached. *Id.* at 17:50–52 Further, the ’131 patent discloses that “[o]nce funds have been collected from all players and the precondition for beginning the tournament has been met, the players will be allowed to compete in the ‘Game[.]’” *Id.* at 17:61–64. The ’220 patent provides that upon completion of the game, the winning player or players receive their winnings. *Id.* at 17:67–18:1. Additionally, the ’220 patent indicates “winnings could be determined by various methods” and “[a]fter the game finishes, all players could be given the opportunity to start a new [game].” *See id.* at 18:1–2, 10–114.

With this express disclosure of the ’131 patent in mind, we determine that Petitioner sufficiently points to the corresponding structure, i.e., the algorithm of the tournament administration module in software form that is within the administration server, which performs the corresponding function required by claims 11, 12, 18, and 21. Pet. 20–22; Ex. 1001, 17:10–19:32; *see* Ex. 1003 ¶ 127.

Patent Owner’s reliance on *Microsoft Corp. v. Improved Search LLC*, IPR2017–01613 in urging error in Petitioner’s constructions for the Means For and Module Terms, including the “tournament administration module,” is unpersuasive. *See* PO Resp. 28. In *Microsoft Corp.*, the panel partially instituted *inter partes* review of a subset of the challenged claims 1–12. Paper 8 at 1, 22–23 (PTAB Dec. 26, 2017).²⁰ That panel did not institute review for claims in which the Petitioner there failed to show any algorithm

²⁰ The Institution Decision in IPR2017-01613 issued prior to *SAS Institute Inc. v. Iancu*, 138 S. Ct. 1348 (2018), which instructs that the Board either institute trial on all the claims and grounds alleged by Petitioner, or not at all.

determined corresponding to the recited function of “to search the database of the advertising cues based on the relevancy to the translated content word.” *Id.* at 8.

In the instant case, the circumstances are different. The Petition directs us to columns 17 and 18 of the ’220 patent, which provides step by step operation (i.e., algorithm) by the tournament administration module for an exemplary embodiment of skill-based tournaments. *See* Pet. 20–22. Petitioner’s proposed construction under § 112 ¶ 6 is supported by citation to Mr. Nicely’s testimony and sections of the Specification. Patent Owner has not adequately addressed this disclosure.

We are also not persuaded by Patent Owner’s citations to *Qualcomm Inc. v. Intel Corp.*, 6 F.4th 1256, 1266 (Fed. Cir. 2021) and *WMS Gaming, Inc. v. Int’l Game Tech.*, 184 F.3d 1339, 1349 (Fed. Cir. 1999)). *See* PO Resp. 27–28. Patent Owner cites to these decisions to support its position that Petitioner and the panel cannot merely cite to a processor and memory for corresponding structure. However, we have not determined that the “proposed corresponding structure . . . is one or more processors implementing an algorithm performing these functionalities.” PO Resp. 27 (citing Inst. Dec. 13). Rather, as discussed above, we determine that the Petition cites to the ’131 patent’s disclosure in columns 17–18 of “tournament administration module 175.” Pet. 22–23. There, the ’220 patent describes how the tournament administration module, e.g., algorithm, oversees and manages the tournaments. An algorithm may be expressed in any understandable terms including as a mathematical formula, in prose, in a flow chart, or “in any other manner that provides sufficient structure.” *Finisar Corp. v. DirecTV Group, Inc.*, 523 F.3d 1323, 1340 (Fed. Cir. 2008).

Patent Owner has not addressed adequately the pertinent structure on which Petitioner relies in connection with the “tournament administration module.”

Furthermore, we are not persuaded by Patent Owner’s reliance on *Cochlear Bone Anchored Sols. AB v. Oticon Med. AB*, 958 F.3d 1348, 1359 (Fed. Cir. 2020). Even assuming that there is a question of indefiniteness, which is an issue that Patent Owner raises, our reviewing court has also instructed that “it is not always impossible to adjudicate a prior-art challenge, one way or the other, just because some aspect of a claim renders the claim indefinite.” *Intel Corp. v. Qualcomm Inc.*, 21 F.4th 801, 813 (Fed. Cir. 2021) (citing *Samsung Electronics America, Inc. v. Prisia Eng’g Corp.*, 948 F.3d 1342, 1355 (Fed. Cir. 2020)). In other words, indefiniteness or the potential indefiniteness of a term does not always preclude our prior-art analysis.

Accordingly, in light of the foregoing, we determine Petitioner’s construction is adequate based on the complete record. We understand Petitioner to argue that the corresponding structure for “tournament administration module” is an algorithm that is within a server programmed to perform the functions of overseeing and managing tournament games. Pet. 20–22 .

b) Remaining Module Terms

As with the “tournament administration module” discussed above, Petitioner makes a similar showing, supported by the testimony of Mr. Nicely, with respect to each one of the Module Terms. *See* Pet. 20–22; Ex. 1003 ¶¶ 123–133. Although Patent Owner expresses general disagreement with Petitioner as to the construction of those terms (*see, e.g.*, PO Resp. 30),

Patent Owner does offer any specific challenges, or its own construction, for any of the remaining Means For Terms or Module Terms.

On the record that has now developed in this proceeding, we conclude that Petitioner, supported by Mr. Nicely's testimony, has pointed sufficiently to corresponding structure, including algorithmic structure, for each of the Means For Terms and Module Terms that appear in the claims of the '131 patent. *See* Pet. 20–22; Ex. 1003 ¶¶ 123–133.

4. All Remaining Claim Terms

We determine that it is unnecessary to expressly construe any other claim term. *See Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) (only terms in controversy must be construed and only to the extent necessary to resolve the controversy.); *see also Nidec*, 868 F.3d at 1017 (citing *Vivid Techs.* in the context of an *inter partes* review).

D. Overview of Prior Art

1. Summary of Bryson

Bryson is titled “Gaming Community Management and Personalization.” Ex. 1004, code (54). Bryson summarizes its disclosure as follows:

The present invention involves methods and devices for controlling many aspects of a player's gaming experience, including game themes presented, game denomination, pay models, content and promotions. Some implementations of the invention provide a casino operator the necessary tools to create subsets of customers, often referred to herein as “communities,” and to control the gaming experiences of players in these communities. In some such implementations, communities may be created and/or modified according to various criteria, some of which may be weighted more heavily than others. Specific

marketing messages, promotions, etc., may be provided to attract and retain players having similar characteristics and preferences.

Id. at 1:33–45.

Bryson also discloses that its invention provides for “the flexible creation and/or modification of player communities” and that an “operator (and/or central system) may provide wagering games, wagering game attributes, etc., according to a player’s community, location and/or device.”

Id. at 5:40–47.

Figure 1 of Bryson is reproduced below.

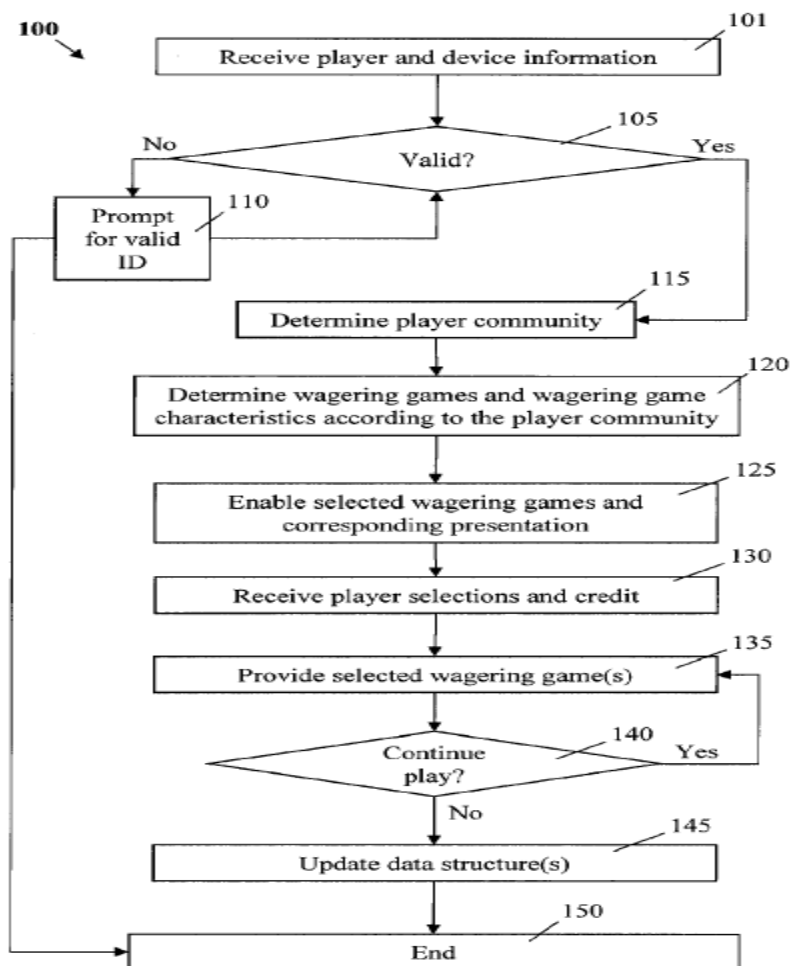


Fig. 1

Figure 1 above illustrates a flow chart outlining aspects of Bryson's disclosure. *Id.* at 4:27–28. In flow chart 100, information about an associated player and device is received at step 101, and that information is authenticated or verified at step 105. *Id.* at 5:48–57; 6:25–29. Further, “[i]f the player and/or device can satisfy the authentication/verification challenge of step 105, the player's community is determined. This process may be performed, e.g., by a device (such as a server) or a central system, with reference to a database of players and player communities.” *Id.* at 6:30–34. At step 125, a determined wagering game presentation is provided to a player. *Id.* at 7:49–50. “Step 125 may vary according to various factors, including the characteristics of the player community, the type and location of the device used for gaming and the provisioning mode.” *Id.* at 7:50–53. Bryson further discloses that “the presentation may depend on device location” and that “wagering games and/or wagering game attributes may be providing according to the legal requirements of a device's jurisdiction.” *Id.* at 8:24–27.

2. *Summary of Amaitis*

Amaitis is titled “System and Method for Peer-To-Peer Wireless Gaming.” Ex. 1005, code (54). Amaitis's Abstract is reproduced below:

A gaming system is provided. The gaming system allows users to access applications via gaming communication devices coupled to a communication network. At least a portion of the network may be wireless. The gaming applications include gambling, financial, entertainment service, and other types of transactions. The system may include a user location determination feature to prevent users from conducting transactions from unauthorized areas.

Id. at code (57).

3. *Summary of Schlottmann*

Schlottmann is titled “Server Based Gaming System and Method for Selectively Providing One or More Different Tournaments.” Ex. 1006, code (54). Schlottmann’s Abstract reads: “[a] gaming system includes a central server or controller operable to communicate a plurality of different commands to a plurality of gaming machines to provide non-tournament game play and to provide tournament game play on the same gaming machines.” *Id.* at code (57).

4. *Summary of Frenkel*

Frenkel is titled “Interactive Gaming Among a Plurality of Players Systems and Methods.” Ex. 1007, code (54). Frenkel’s Abstract is reproduced below:

A system for interactive gaming among a plurality of players includes a host computer system and a plurality of player terminals communicably coupled to the host computer system via a network. The plurality of player terminals are located at a plurality of licensed gaming locations. The plurality of player terminals are configured to engage the plurality of players in a common interactive game operated by the host computer system. The plurality of player terminals include means for dispensing player winnings from the player terminal.

Id. at code (57).

5. *Summary of Harkham*

Harkham is titled “Methods and Systems of Providing Real Time On-Line Casino Games.” Ex. 1008, code (54). Harkham’s Abstract is reproduced below:

Methods and systems of providing real time on-line casino games are disclosed. A remote player connects to an on-line server that hosts a game center. A flexible security program allows a web site to select one or more user information fields as required verification fields for entering the web site. A card scanner at a game table scans a card and reads a code embedded in the card that indicates the type of the card. Cameras at the game table capture the video images of the game table. The video images and the type of the card are transmitted by the server to the remote player. Playing instructions from the remote player are transmitted to the game table and displayed by a remote instruction system at the game table. Slot machine statistics such as amount and frequency of recent winnings are provided to help players select a favorite slot machine to play. Other games such as trivia games, computer games and wagering on sporting events can be provided to enable remote players to play against the game center or other remote or physical players. Player reward programs are displayed and offered to the players.

Id. at code (57).

6. *Summary of Oberberger*

Oberberger is titled “Gaming System and Method of Operating a Gaming System Providing Wagering Control Features For Wagering Games.” Ex. 1009, code (54). Oberberger’s Abstract is reproduced below:

A gaming system and method provides wagering control features for application in multi-stakes, multi-player wagering games. Players have the option to choose one of a plurality of different modes at the beginning of a gaming session. Depending on which mode is selected the wagering control feature or features available to players during game play will be different.

Id. at code (57).

E. Grounds 1 and 2: Based on Bryson alone or Bryson and the knowledge of a skilled artisan

Petitioner contends that claims 8, 9, 14–16, and 19 are anticipated by Bryson or, alternatively, that those claims would have been rendered

obvious based on Bryson taken with the knowledge of a skilled artisan. *See* Pet. 28–48 (Grounds 1 and 2); Pet. Reply 1–12. Patent Owner does not agree. *See* PO Resp. 11–22; PO Sur-reply 1–5.

1. Discussion: Grounds 1 and 2

In reviewing the Petition and the grounds based on Bryson, we discern that Petitioner lays out in detail where it believes all of the limitations required by claims 8, 9, 14–16, and 19 are accounted for by the prior art. *See, e.g.*, Pet. 28–48. Petitioner supports its position in the Petition through recourse to the testimony of Mr. Nicely (Ex. 1003).

a) Claim 8

With respect to independent claim 8, Patent Owner focuses its challenges to the above-noted grounds on certain limitations, in particular, (1) limitations pertaining to “non-monetary based wagering” (limitation 8[g]) coupled with “compensate the player with player winnings” (limitation 8[k]) (*see* PO Resp. 11–18; PO Sur-reply 1–5) and (2) the recited “communication interface” (part of limitation 8[b]) (*see* PO Resp. 19–22).^{21, 22}

²¹ Claim 15 also refers to “non-monetary based wagering.” Ex. 1001, 27:63–65. Patent Owner contends that its arguments as to that feature in claim 8 also apply to claim 15. *See* PO Resp. 18.

²² Claim 8 also includes a requirement of “dynamically create a customized list . . .” (limitation 8[e]). That limitation is similarly recited in each of claims 1 and 30. Patent Owner directs arguments to that limitation in connection with Ground 3 as applied to claim 1 (*see* PO Resp. 45–56), but generally states that the arguments are also applicable to claim 8 (*see id.* at 46). For consistency and continuity with Patent Owner’s briefing, we address Patent Owner’s arguments in our discussion below in conjunction with Ground 3 (*see infra* § II.E.1.).

(1) Limitations 8[g] and 8[k]: “non-monetary based wagering” and “compensate the player with player winnings”

In the Institution Decision, we observed that there was no apparent dispute in connection with any requirement of claim 8 in compensating players with monetary winnings. Inst. Dec. 33. We further noted that dispute between the parties emerged in connection with the potential interplay of the “non-monetary based wagers” set forth in limitation 8[g] alongside the requirement of limitation 8[k] pertaining to “compensate the player with player winnings.” *Id.* at 33–34. We invited the parties to address the matter further during trial. *Id.* at 34. The parties have done so. *See* PO Resp. 11–18; PO Sur-reply 1–5; Pet. Reply 8–10.

At the outset, we note that in its Response, Patent Owner includes a heading for its arguments of “Bryson Fails to Disclose the ‘Non-Monetary Based Wagering’ Requirements of Claims 8 and 15.” PO Resp. 11. As a part of its arguments, Patent Owner seems to regard the referenced “non-monetary based wagering” requirements as directly emerging from limitation 8[g] coupled with limitation 8[k]. *See* PO Resp. 11–18. In its Patent Owner Sur-reply, however, Patent Owner contends that “the meaning of ‘non-monetary based wagering’ in limitation 8[g] necessarily includes a compensation component” and that limitation 8[k] is simply “intrinsic evidence” that such compensation components exists. *See* PO Sur-reply 1–5. Regardless of how the relationship between limitation 8[g] and 8[k] is characterized, we consider those two limitations together.

We recognize that Petitioner takes alternative positions as to the connection between limitations 8[g] and 8[k]. First, Petitioner advances a view that Bryson anticipates claim 8 because the compensation of a player

with “winnings” set forth in limitation 8[k] is not impacted when monetary gambling is restricted and non-monetary based wagering occurs. *See, e.g.*, Pet. Reply 4–8. As discussed above, however (*see supra* § II.C.2), in considering the record that has now developed in this proceeding, we determine that claim 8 does require compensating a player with winnings that are non-monetary, i.e., winnings that are based on non-monetary based wagering. We, thus, do not further consider the anticipation position taken by Petitioner.

Petitioner alternatively takes a position that, in connection with its proposed obviousness ground involving Bryson, the Petition is understood to address the circumstance in which a player must also be compensated with non-monetary winnings. *See* Pet. Reply 8–11. We focus on that alternative position.

In the Petition, Petitioner explained that Bryson “teaches ‘provid[ing] the play of games for free’ using ‘simulated,’ non-monetary ‘wagers’ that do not affect a player’s [account] balance” so as to permit gameplay where monetary gambling is restricted. Pet. 36–37 (citing Ex. 1003 ¶ 167–169; Ex. 1004, 17:31–37, Fig. 4). The referenced portion of Bryson’s column 17 is reproduced below:

In some instances, games played on the game outcome server may not affect a player’s balance and a balance on a remote device may not have to be updated. For example, the game outcome server may provide the play of games for free with simulated wagers. In which case, the game outcome server may provide the play of a game but the player’s balance is not affected.

Ex. 1004, 17–37.

Thus, Bryson clearly provides for “the play of games for free with simulated wagers.” For the same reasons as in the Institution Decision (*see*

Inst. Dec. 31), we agree with Petitioner (*see, e.g.*, Pet. 36–37) and credit Mr. Nicely’s testimony (*see* Ex. 1003 ¶ 167) that Bryson’s disclosure reasonably accounts for the “non-monetary based wagering” recitation of claim 8 (limitation 8[g]). To the extent that Patent Owner disagrees, Patent Owner does not explain any credible basis for any such disagreement. Simply stated, the record readily conveys that “simulated wagers” as a part of free gameplay are understood as “non-monetary based wagering.”

In connection with limitation 8[k], or any compensation component that emerges from limitation 8[g] based on limitation 8[k], Patent Owner makes reference to Bryson’s disclosure that, with respect to free gameplay with simulated wagers, a “player’s balance is unaffected.” PO Resp. 14–15. Patent Owner extrapolates from that disclosure that Bryson’s simulated wagering is without “compensational consequence (e.g., winnings, deductions)” because Bryson is “silent with respect to the question of *what type* of winnings are awarded with simulated wagering (e.g., the question of monetary assets versus non-monetary assets, if even contemplated by Bryson).” *Id.* at 15. Patent Owner goes even further and asserts that “it is undeniable that Bryson is explicit that there is no compensation of player winnings under simulated wagering.” *Id.* (citing Ex. 1004, 17:31–37); *see also* PO Sur-reply 4 (“Bryson’s characterization of ‘simulated’ explicitly means no compensation”). Patent Owner’s declarant, Dr. Lane, expresses a similar view. *See, e.g.*, Ex. 2005 ¶ 148.

Neither of Patent Owner’s or Dr. Lane’s above-noted views, however, logically follows from Bryson’s teachings. Bryson indicates that a player’s “balance” is not affected as a part of its disclosed simulated wagers, but the natural understanding of that disclosure, and one that we expressed in the Institution Decision (*see* Inst. Dec. 31), is that it is a player’s *monetary*

balance that is not impacted as a part of Bryson's simulated wagering when monetary gambling is restricted. Although Bryson may not specify any particular type of winnings or compensation that results from simulated wagering, that is not a disclosure that winnings or compensation are expressly excluded, as Patent Owner seems to imply. That the wagers are "simulated" is understood from the context of Bryson's disclosure as simply meaning that monetary gambling does not occur. But, it is intrinsic to the very principle of "wagering" that there is some manner of tracking the outcome of such wagers, even if "simulated."

Indeed, as we observed in the Institution Decision (*see* Inst. Dec. 31), the Specification of the '220 patent sets forth that the "winnings" recited in claim 8 can be in "many forms" including, for example, "points" or "credits." *See* Ex. 1001, 11:6–8. Like the '220 patent, Bryson discloses that non-monetary compensation may be provided in different ways, such as game tokens or tickets for food, merchandise, games, or prizes. Ex. 1004, 30:5–9. The claims do not specify any particular type of winnings or compensation that must result from non-monetary based wagering. It strains credulity to suggest that a skilled artisan would not immediately envision that "simulated wagers" made as a part of gameplay involve the tallying of some form of metric, e.g., points, so as to permit a player to track their progress based on their "wagering" when monetary gambling is restricted. Such tallying reasonably constitutes the "winnings," or a compensation component, that is contemplated by the '220 patent, and the pertinent claims.

We further observe that Patent Owner makes reference to the Specification of the '220 patent in describing "debiting and crediting a player's account" as a result of gameplay or providing a "payout" that "may be through an electronic payment systems [sic] to a user account (e.g.,

virtual currency account, bank account, casino account, etc.).” PO Resp. 13 (citing Ex. 1001, 11:50–57; 16:47–65). Patent Owner then postulates that “the ’220 Patent specification contemplates example configurations needed to compensate player winnings according to non-monetary wagers— compensation for a non-monetary wager can be made to a non-monetary account (e.g., a virtual currency account).” *Id.* at 14. Patent Owner, however, does not meaningfully explain the significance of its postulation. Even assuming that a “virtual currency account” is some type of “non-monetary account,” there is no claim requirement directed to any such “non-monetary account.” Rather, the claims, and specifically claim 8, simply provide for non-monetary based wagering in circumstances where monetary gambling is restricted, and player compensation of resulting “winnings,” which may include, for instance, “points.” *See* Ex. 1001, 11:6–8.

Accordingly, we agree with Petitioner’s arguments (*see, e.g.*, Pet. Reply 8–10), and credit Mr. Nicely’s associated testimony (*see, e.g.*, Ex. 1003 ¶¶ 168–169), that a skilled artisan reasonably would have appreciated or inferred from Bryson’s disclosure that its “simulated wagers” as a part of free gameplay include the type of compensation or winnings contemplated by the ’220 patent. Patent Owner’s and Dr. Lane’s opposing views are unpersuasive in failing to account for the reasonable and logical inferences that a person of ordinary skill in the art would have taken from the teachings of the prior art. *See KSR*, 550 U.S. at 418; *see also Perfect Web Technologies, Inc. v. InfoUSA, Inc.*, 587 F.3d 1324, 1329 (Fed. Cir. 2009) (“hold[ing] that while an analysis of obviousness always depends on evidence that supports the required Graham factual findings, it also may include recourse to logic, judgment, and common sense available to the

person of ordinary skill that do not necessarily require explication in any reference or expert opinion”).

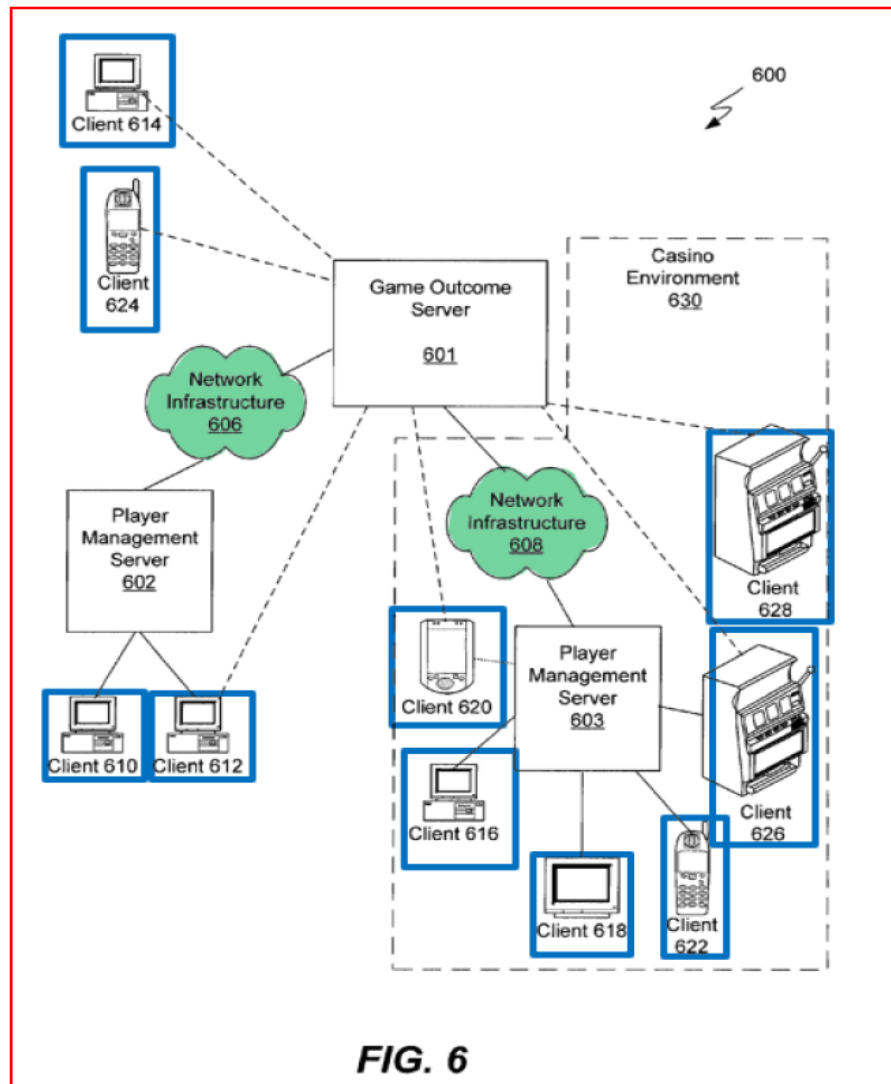
As a result, we conclude that Petitioner has adequately accounted for the requirements of limitation 8[g] and 8[k] in connection with its obviousness ground involving the teachings of Bryson.

(2) Limitation 8[b]: “communication interface”

Limitation 8[b] introduces “at least one communication interface.”

Ex. 1001, 27:11. In the Petition, Petitioner expresses the following:

Bryson discloses network infrastructure 606 (green below) for its gaming system that “allow[s] clients and servers to communicate with one another” via “various combinations of wireless and wired communication links,” which are each a communication interface for components of Bryson’s gaming system.



Bryson also teaches that each client 610-628 (blue above) includes a “communication interface” such as “an interface that allows a user to participate in a game,” such as “a display device for viewing the game and input mechanism for making choices” including for “initiat[ing] a game.”

Pet. 29–30 (citing Ex. 1003 ¶¶ 155–156; Ex. 1004, 12:56–13:2; 12:31–41; 26:52–53).

Thus, Petitioner contends that the claimed “communication interface” is satisfied in Bryson’s disclosure in two ways, either through “network infrastructure 606,” or, alternatively, through client devices 610–628 constituting an “interface that allows a user to participate in a game” and “a

display device for viewing the game and input mechanism for making choices.” *Id.*

In its Response, Patent Owner contends that “Petitioner takes the unreasonable position that the recited ‘communication interface’ can be (1) either the network itself, or (2) a human-machine interface (e.g., mouse, keyboard, or touchscreen) on the client devices.” PO Resp. 20. Patent Owner also characterizes Petition’s positions as “ambiguous.” *Id.*

In its Reply, Petitioner disputes that it relies on any network “itself” as a “communication interface,” but rather asserts that it has identified “Bryson’s ‘network *infrastructure* 606’” as satisfying that limitation. Pet. Reply 10. Petitioner also notes that Patent Owner does not challenge “Petitioner’s second ‘communication interface’ theory, which maps to Bryson’s display and input device as the claimed interface.” Pet. Reply 11 n.6.

Patent Owner advances no additional arguments pertaining to the “communication interface” requirement as a part of its Sur-reply.

There is no apparent dispute between the parties as to the meaning of “communication interface.” Both parties seemingly agree that it is composed of components that connect devices, such as a gaming client and an administration server, to a network. *See* PO Resp. 21; Pet. Reply 11. Patent Owner also points to disclosure in the ’220 patent as describing that “[n]etwork interfaces 1450 may use various wired and wireless connection protocols such as, direct connect, Ethernet, wireless connection such as IEEE 802.11a-x, Miracast and the like.” PO Resp. 21 (quoting Ex. 1001, 23:18–21). As Petitioner recognizes (Pet. Reply 10–11), Bryson discloses that its network infrastructure 606 “allow[s] the client and servers to communicate with one another” and “may comprise various combinations of

wireless and wired communication links.” Ex. 1004, 12:56–59. In our view, there is nothing unreasonable or ambiguous in Petitioner’s identification of Bryson’s network infrastructure 606 as constituting the claimed “communication interface.” Patent Owner’s contention that Petitioner relies on a “network itself” as the communication interface is not an accurate characterization of Petitioner’s actual position as set forth in the Petition. We further note that Patent Owner does not seemingly address Petitioner’s alternative reliance on Bryson’s clients 610–628 as meeting the claimed “communication interface” in forming an “interface that allows a user to participate in a game” and “a display device for viewing the game and input mechanism for making choices.” See Pet. 29–30. Furthermore, Dr. Lane’s testimony is consistent with our reading of Bryson. Dr. Lane testified under cross-examination that a POSITA would generally understand communication interfaces to be part of any network. Ex. 1068, 53:21–54:5, 54:12–14. In other words, the interfaces are generally part of the *infrastructure* of a network. See *id.* That being so, Petitioner’s citation to Bryson’s “network infrastructure” is more specific than a general “network” and refers to the infrastructure of a network, which Dr. Lane acknowledges includes interfaces. Thus, we determine that Petitioner has accounted adequately for the claimed “communication interface” based on Bryson’s disclosure.

Accordingly, we determine that Petitioner has shown that the claimed “communication interface” is met by Bryson’s disclosure.

(3) Limitation 8[e]: “dynamically create a customized list of available games for a player at the current location of the player”

As noted above (footnote 20), claim 8 also includes recitation of “dynamically create a customized list of available games for a player at the current location of the player” (limitation 8[e]) (the “Dynamic” limitation). Ex. 1001, 27:16–17. That is a limitation that is similarly recited in each of claims 1 and 30. Patent Owner presents its arguments as to the “Dynamic” limitation in connection with claim 1 which is challenged as a part of Ground 3. *See* PO Resp. 45–56. For the reasons discussed below in connection with Ground 3 and claim 1, we also conclude that Petitioner has accounted for the Dynamic limitation as it appears in claim 8 (limitation 8[e]). *See infra* § II.E; *see also* Pet. 32–35 (applying Bryson’s teachings to limitation 8[e]).

(4) Remaining limitations of claim 8

Supported by the testimony of Mr. Nicely, Petitioner lays out where all the remaining limitations of claim 8 are present in Bryson. *See, e.g.*, Pet. 28–39, 30–32, 35–36, and 37–40. Patent Owner does not challenge any of those additional limitations as a part of the trial. Having considered Petitioner’s detailed assessment of how Bryson’s teachings account for the above-referenced limitations of claim 8, we do not discern any deficiencies in that assessment.

b) Claims 9, 14–16, and 19

Claims 9 and 14 depend from claim 8. Claim 15 is an independent claim, from which claims 16 and 19 depend. The Petition lays out how

Petitioner believes all the features of claims 9, 14–16, and 19 are accounted for based on Bryson’s teachings. *See* Pet. 40–48.

Claim 15 includes a “non-monetary based wagering” requirement. Ex. 1001, 27:63–65. Patent Owner contends that Petitioner’s grounds based on Bryson are deficient for the same reasons offered in connection with claim 8’s “non-monetary based wagering” requirement. *See* PO Resp. 18. As discussed above, we determine that Petitioner has accounted for the “non-monetary based wagering” feature of claim 8. We reach the same determination as to claim 15. We conclude that Petitioner has shown how all the features of claim 15 are accounted for in the prior art. *See* Pet. 40–44.

With respect to dependent claims 9, 14, 16, and 19, Patent Owner does not offer any distinct arguments directed to those claims. On the record before us, we do not discern deficiencies in the Petition in accounting for the requirements of each of claims 9, 14, 16, and 19. *See* Pet. 44–48.

2. Summary: Grounds 1 and 2

We have considered the parties’ respective briefing in this proceeding, including all arguments and supporting evidence. As a result of that consideration, we conclude that Petitioner has shown, by a preponderance of the evidence, that all of claims 8, 9, 14–16, and 19 are unpatentable for obviousness under 35 U.S.C. § 103 based on Bryson (Ground 2). *See* Pet. 28–48. In light of that conclusion, we determine that it is unnecessary to reach Petitioner’s proposed anticipation ground as to those claims based on Bryson that is advanced under 35 U.S.C. § 102 (Ground 1). *See SAS Inst. Inc. v. Iancu*, 138 S. Ct. 1348, 1359 (2018) (holding a petitioner “is entitled to a final written decision addressing all of the claims it has challenged”); *Bos. Sci. Scimed, Inc. v. Cook Grp. Inc.*, 809 F. App’x 984, 990 (Fed. Cir.

2020) (recognizing the “Board need not address issues that are not necessary to the resolution of the proceeding,” and agreeing the Board has “discretion to decline to decide additional instituted grounds once the petitioner has prevailed on all its challenged claims”).

F. Ground 3: Based on Bryson and Harkham

Petitioner contends that claims 1–3, 6, and 26–30 are unpatentable based on Bryson and Harkham, and lays out where all the features of those claims are accounted for by the prior art. *See* Pet. 49–56. Claims 1 and 30 are independent claims. Claims 2, 3, 6, and 26–29 ultimately depend from claim 1.

1. Discussion: Ground 3

a) Claims 1 and 30

Each of claims 1 and 30 has a similar requirement that we refer to as the “Dynamic” limitation. As discussed above, claim 8 also has such a limitation. In the Petition, Petitioner explains how the “Dynamic” limitation is accounted for by Bryson’s teachings in the context of claim 8. *See* Pet. 32–35 (addressing limitation 8[e]). Patent Owner challenges Petitioner in that regard, focusing on the “Dynamic” limitation as it appears in claim 1. *See* PO Resp. 46–56; PO Sur-reply 16–23. For convenience, we reproduce the “Dynamic” limitation as it appears in claim 1: “dynamically creating, by an administration server, a customized list of player gaming options for a player based, at least in part, on a current location of the player.” *See* Ex. 1001, 26:21–24. Patent Owner provides two principal arguments as to Petitioner’s reliance on Bryson in accounting for that limitation. First, Patent Owner argues that Bryson does not describe creation of a list

“dynamically,” as Patent Owner understands the term to mean. *See* PO Resp. 46–49; PO Sur-reply 16–20. Second, Patent Owner argues that Bryson does not disclose the dynamic creation of a list that is based on “a current location of the player.” *See* PO Resp. 49–56; PO Sur-reply 20–23. We consider Patent Owner’s arguments below.

(1) “Dynamically” creating a customized list

Patent Owner first contends that Petitioner has “ignored” the term “dynamically” in the claims and that Petitioner has not explained how Bryson teaches the dynamic creation of a list, i.e., in Patent Owner’s view the creation of a list “on an ongoing basis.” PO Resp. 46–49; PO Sur-reply 16–20. Petitioner disagrees with Patent Owner principally on the basis that Patent Owner’s construction of the term “dynamically” is flawed. *See* Pet. Reply 20–22. As discussed above (*see supra* § II.C.1.), we do not agree with Patent Owner’s construction as to what is encompassed by “dynamically” creating a list of gaming options for a player. Specifically, Patent Owner does not present a cogent explanation as to what the phrase “on an ongoing basis” means in connection with the creation of such a list. Instead, we agree with Petitioner that, in the context of the ’220 patent, the dynamic creation of a list encompasses the creation of a list automatically by a server without action by a human operator. *See* Pet. Reply 20–22.

The Petition credibly explains how Bryson discloses the dynamic creation of a list as a part of the “Dynamic” limitation of the claims. *See* Pet. 32–35, 51–52. As we explained in the Institution Decision (*see* Inst. Dec. 26–27), contrary to arguments that Patent Owner had made before institution of trial, Bryson’s teachings are not limited to the generation or creation of a list of available games solely by a human operator. Although

we noted that Bryson does discuss, in portions of its disclosure, that a human operator (i.e., “casino operator”) may take such actions as generating player communities or provide game listings (*see id.* at 27), we also discerned the following:

In other portions, Bryson makes clear that the actions of an operator, including the creation of player communities, may, instead, be performed by a “server” of a “central system.” *See* [Ex. 1004], 6:30–34 (“If the player and/or device can satisfy the authentication/verification challenged of step 105, the player’s community is determined. This process may be performed e.g., by a device (*such as a server*) of a central system.” (emphasis added)); *id.* at 5:45–47 (“The operator (*and/or the central system*) may provide wagering games, wagering game attributes, etc., according to a player’s community, location, and/or device type.” (emphasis added)).

Id.

Patent Owner does not provide any persuasive argument as to why Bryson’s disclosure of a central system, and its associated server, that takes action such as providing “wagering games” and “wagering game attributes” based on such factors as “a player’s community, location, and/or device type” is inadequate to account for the claim requirement of dynamically creating a customized list of player game options that is called for in the claims. Although Patent Owner argues that Petitioner has ignored the term “dynamically,” Patent Owner does not address adequately the disclosure of Bryson on which Petitioner relies (*see* Pet. 32–35), including that noted above, as accounting for the dynamic list creation set forth in the claims.

We additionally note that Patent Owner also does not meaningfully explain why such above-referenced actions by the central system is not “on an ongoing basis,” even if we were to consider Patent Owner’s construction of “dynamically” creating a game list as being correct. In particular,

although we address the issue of list creation based on a player's location in more detail below, we note that Bryson clearly provides that content, such as available games, is displayed to a player, e.g., on a player's mobile gaming device, based on a player's location. *See, e.g.,* Ex. 1004, 8:30–39. Because of that circumstance, Bryson clearly states that “the location of a mobile gaming device may need to be determined *on an ongoing basis*.” *Id.* at 8:38–39 (emphasis added). That game content displayed to a player, such as game listing, is altered based on a player's location, and that the location is determined “on an ongoing basis” lends itself readily to a conclusion that the creation or presentation of the list is also “on an ongoing basis” per Patent Owner's claim construction. In that respect, we agree with Petitioner. *See* Pet. Reply 22–23.

Accordingly, having considered the respective positions of the parties, we conclude that Petitioner presents the better case that a person of ordinary skill in the art would have appreciated Bryson's disclosure as accounting for the dynamic creation of a list of gaming options that is recited in claim 1 (and also the similar recitations in each of claims 8 and 30).

(2) Dynamically creating a customized list based “on a current location of the player”

Patent Owner further argues that the requirement of the “Dynamic” limitation pertaining to the creation of a list based “on a current location of the player” is absent from Bryson's disclosure. *See* PO Resp. 49–56; PO Sur-reply 20–23. Petitioner disagrees. *See* Pet. Reply 22–24.

In the Institution Decision, we considered similar arguments made in its Patent Owner's Preliminary Response that Patent Owner also relies on now in its briefings during the trial on the matter of list creation based “on a

current location of a player.” *See* Inst. Dec. 27–29.²³ Patent Owner recognizes that we had previously considered its arguments, and states the following:

Patent Owner understands that the Board expressed a different view on this issue in its Institution Decision, but it (1) respectfully requests the Board to reconsider, and (2) is required to include the arguments made in Patent Owner Preliminary Response (“POPR”) here to avoid wavier. *See In re NuVasive*, 842 F.3d 1376, 1380–81 (Fed. Cir. 2016).

PO Resp. 52, n.8.

We have once again considered Patent Owner’s positions but conclude that they are unpersuasive and do not account appropriately for Bryson’s clear teachings.

Bryson is unequivocal in its disclosure that a player’s location is a central factor that dictates gaming content that is displayed to a player. For instance, Bryson discloses the following:

A determined wagering game presentation is then provided to the player. (Step 125.) Step 125 may vary according to various factors, including the characteristics of the player community, the type and *location of the device used for gaming* and the provisioning mode. For example, for online implementations, a player may be presented with a web page having wagering game options, a characteristic layout, colors, graphics, etc., corresponding to the player community. Featured games, which may be displayed prominently on the web page, may be quite different from one community to another. If the same wagering game themes are presented to more than one community, wagering game characteristics (such as denomination, volatility, etc.) may be different.

Ex. 1004, 7:49–61 (emphasis added).

²³ Patent Owner’s prior arguments were made in connection with claim 8 rather than claim 1. We incorporate by reference our prior assessment of Patent Owner’s arguments that we expressed in the Institution Decision.

Thus, Bryson sets forth that “wagering game presentation” involving “wagering game options” may be displayed to a player where the display is varied, or customized, based on various factors including “location of the device used for gaming.” *Id.* Patent Owner recognizes Bryson’s above-noted disclosure, including the referenced “Step 125,” but attempts to somehow cabin that disclosure stating “Step 125 only discusses game presentation redaction, and it is not ‘dynamically creating.’ A POSITA would not read Bryson’s ongoing-presentation-redaction statement as ‘dynamically create.’” PO Resp. 53 (citing Ex. 2005 ¶ 164). Neither Patent Owner nor Dr. Lane, however, explains why they characterize Bryson’s disclosure as constituting “redaction” or “ongoing-presentation-redaction.” As Petitioner notes, the term “redaction” does not appear in Bryson and instead was a term supplied by Dr. Lane, along with other similar type terms such as “removed” and “disabled.” *See* Pet. Reply 23 (citing Ex 1068, 123:21–124:9).²⁴ Rather than any “redaction,” Bryson’s disclosure reasonably conveys that content is created and displayed to a player based on factors that include location of the player’s device used for gaming.

Patent Owner also attempts to distinguish Bryson’s Step 125 from another step (Step 120), which Patent Owner characterizes as involving “game and games characteristics determination” and “arguably the closest to the feature at issue here.” PO Resp. 53–54. According to Patent Owner, Step 120 is not modified based on a player’s location. *Id.* Yet, irrespective of Step 120, Patent Owner does not explain meaningfully why Bryson’s above-quoted disclosure of Step 125 as involving “wagering game presentation” based on a player’s location that includes description of

²⁴ Exhibit 1068 includes deposition testimony of Dr. Lane.

presenting “wagering game options” is not readily viewed as the creation of a list of player game options based on a player’s location, as is called for in claim 1 (and also claims 8 and 30). *See* Ex. 1004, 7:49–61.

Another exemplary disclosure in Bryson is the following pertaining to some implementations of Bryson’s invention: “According to some such implementations, the presentation may depend on device location. For example, wagering games and/or wagering game attributes may be provided according to the legal requirements of a device’s jurisdiction. Wagering limits, wagering game time limits, may be imposed according to jurisdictional requirements.” Ex. 1004, 8:24–29. Thus, Bryson expresses that the jurisdictional requirements where a player is located dictate the types of “wagering games and/or wagering game attributes” that are provided to a player’s device.

Bryson provides a further example of a scenario in which displayed content is determined based on a player’s location, which is reproduced below:

Even within the same legal jurisdiction, the presentation may depend on device location. For example, a mobile device could be configured for X-rated slots if a player is playing in an “adults only” area of a casino (e.g., at a bar), but not if the player is in a family-oriented area of the casino (e.g., at the pool). There could be other designated areas of a casino wherein particular games and/or presentations would or would not be allowed. Accordingly, the location of a mobile gaming device may need to be determined on an ongoing basis.

Id. at 8:30–39.

Thus, Bryson envisions a situation in which the presentation of available content is influenced based on whether a player’s mobile device is in an “adults only” area of a casino as opposed to a family-oriented area.

In light of Bryson’s disclosures, including those reproduced above, Petitioner contends that Bryson accounts for the “Dynamic” limitation of the claims, specifically the dynamic creation of a list gaming options for a player based on a player’s location. *See* Pet. 32–35; Pet. Reply 20–24. Patent Owner attempts to draw some type of distinction between Bryson’s expression of “presentation” of a list of available games versus “creation” of such a list. *See, e.g.*, PO Resp. 49–50; PO Sur-reply 20–21. It is difficult, however, to reconcile Patent Owner’s view with Bryson’s unambiguous teachings. Bryson’s “presentation” of “wagering games” or “wagering game attributes” to a player based on the player’s location clearly involves creation of a list of gaming options. *See, e.g.*, Ex. 1004, 7:49–67; 8:24–29. That the list of options changes based on the player’s location is reasonably understood as “re-creating” the list based on the change in location, as characterized by Petitioner. *See* Pet. Reply 22–23. Neither Patent Owner nor Dr. Lane adequately substantiates their position with record citation that Bryson’s teachings only convey that gaming options are “redacted.” *See, e.g.*, PO Resp. 53; Ex. 2005 ¶ 164. Moreover, even if that position is correct, neither Patent Owner nor Dr. Lane meaningfully explains why such redaction does not itself establish a creation of a new list that now newly excludes the redacted items.

We further discern that Patent Owner’s statement that “Petitioner’s argument, that Bryson does create its initial list based on location, is irrelevant” is inaccurate. *See* PO Sur-reply 20. As discussed above (*see supra* § II.C.1.), we conclude that the claims encompass the dynamic creation of a list of gaming options by a server even if that list creation occurs, in a particular circumstance, only one time. Regardless, for the reasons disclosed above, Bryson’s teachings readily convey that the creation

of a list occurs dynamically, and can change, based on a change in a player's location, for instance, when a player moves from one area of a casino (e.g., a bar) to another area of the casino (e.g., a family oriented area). *See* Ex. 1004, 8:30–39.

Both Patent Owner's and Dr. Lane's assertions (*see, e.g.*, PO Resp. 45–56; PO Sur-reply 20–23; Ex. 2005 ¶¶ 161–166) as to proposed deficiencies in Bryson's disclosure simply are not consistent with the plain disclosure of Bryson, and do not account adequately for what a skilled artisan would have understood from that plain disclosure. We find persuasive Petitioner's contentions (*see, e.g.*, Pet. 32–35; Pet. Reply 20–24), and credit Mr. Nicely's testimony (*see, e.g.*, Ex. 1003 ¶¶ 131, 163–166), as more consistent and in-line with Bryson's clear teachings.

Accordingly, we conclude that Petitioner has shown that the “Dynamic” limitation of claims 1 and 30 is satisfied by the teachings of the prior art.

(3) Remaining Limitations of Claims 1 and 30

Patent Owner does not advance any specific arguments as to any other limitation required by claims 1 and 30. We conclude that Petitioner, supported by the testimony of Mr. Nicely, has accounted adequately for the remaining limitations of claims 1 and 30 based on the teachings of Bryson and Harkham. *See* Pet. 51–52.

b) Claim 6

Claim 6 depends from claim 1 and adds “wherein the limits on wagering amounts changes the bet to a non-monetary based wager and wherein compensating the player with the player winnings includes compensating the player with non-monetary winnings.” Ex. 1001, 27:1–5.

Petitioner relies on Bryson’s teachings to account for claim 6, including its requirement of a “non-monetary based wager” and “compensating the player with non-monetary winnings. *See* Pet. 54–55.

In a similar manner as discussed about in connection with claim 8, Patent Owner contends that Bryson’s teachings are inadequate to meet claim 6. *See* PO Resp. 56–57.

For the same reasons discussed above (*see supra* § II.E.1.a)(1)), we conclude that a person of ordinary skill in the art would have recognized or inferred that Bryson’s teachings pertaining to simulated wagering satisfy the requirement in claim 6 as to a “non-monetary based wager” and “compensating the player with non-monetary winnings.”

c) Claims 2, 3, and 26–29

Claims 2, 3, and 26–29 ultimately depend from claim 1. Patent Owner does not offer any separate arguments as to those claims. We determine that Petitioner persuasively shows where all the features of those claims are present in the prior art. *See* Pet. 52–54 and 55–57.

2. Summary: Ground 3

We have considered the competing views of the parties as to Ground 3. We conclude that Petitioner has shown where all the features of claims 1–3, 6, and 26–30 are found in Bryson and Harkham. *See* Pet. 51–56. We also conclude that Petitioner has demonstrated that a person of ordinary skill in the art would have had adequate reason to combine the teachings of those references, and also would have had a reasonable expectation of success in doing so. *See id.* at 49–51. Accordingly, we determine that

Petitioner has shown by a preponderance of the evidence that claims 1–3, 6, and 26–30 are unpatentable based on Bryson and Harkham.

G. Ground 8: Based on Bryson, Frenkel, and Amaitis

Petitioner contends that claims 21–24 would have been unpatentable based on Bryson, Frenkel, and Amaitis, and lays out in detail how the features of those claims are accounted for by the prior art. Pet. 73–86.

1. Discussion: Ground 8

Claim 21 is an independent claim directed to “A system for hosting interactive games.” Ex. 1001, 28:31. The claim includes several of the Module Terms including “a risk management module,” “a gaming option creation module,” “a tournament administration module,” “a player interface module,” and “a game initiation module.” *Id.* at 28:36–58. Claims 22–24 ultimately depend from claim 21.

Patent Owner contends that Petitioner’s proposed Ground 8 is defective because Petitioner’s proposed claim construction of the Module Terms is deficient in neglecting to account for the “algorithmic structure” of the Module Terms. *See* PO Resp. 31–37; PO Sur-reply 5–14. Patent Owner also contends that “the Petition fails to provide a proper obviousness analysis and lacks any explanation for the necessary modifications to Bryson and/or Amaitis in order to combine with Frenkel’s teachings.” PO Resp. 38; *see id.* at 38–44; PO Sur-reply 14–15.

a) The Module Terms: Bryson-Frenkel-Amaitis Combination

As discussed above, we determine that Petitioner has identified corresponding structure, with sufficient specificity, pertaining to the Module Terms in the Specification of the ’220 patent. *See supra* § II.C.3.

In the Petition, Petitioner points to structural elements present in the combined teachings of Bryson, Frenkel, and Amaitis that Petitioner contends correspond to each of the pertinent Module Terms required by claims 21–24. *See* Pet. 75–86. For example, claim 21 includes the following recitation: “a tournament administration module configured to host a tournament game, wherein the tournament administration module communicates with the risk management module to determine whether players are colluding or exhibiting illicit behavior during a tournament game.” Ex. 1001, 28:42–47 (designated in the Petition as limitation 21[e] (*see* Pet. 11)) In accounting for that recitation, Petitioner expresses the following:

Frenkel teaches “monitoring actions taken by one or more of the plurality of players” in a multi-player tournament game “to thereby detect collusion among the players.” EX[1003] ¶291 (citing EX[1007] ¶10); §IX.H.2(b). Frenkel also discloses a “tournament processor 312” that “controls one or more interactive games” for “player tournaments.” *Id.* (citing EX[1007] ¶44).

Frenkel discloses that “[t]he host computer system may include means for monitoring actions taken by one or more of the plurality of players to thereby detect collusion among the players,” including a “collusion detection processor 318.” EX[1003] ¶293 (citing EX[1007] ¶7). Frenkel therefore discloses a “processor” (*i.e.*, “collusion detection processor 318”) that implements an algorithm to perform the claimed functions of receiving gaming data from clients. *Id.*

Pet. 81, 82.

Thus, Petitioner identifies, in Frenkel, a “tournament processor 312” that operates to control interactive games for player tournaments and a “collusion detection processor 318” that detects collusion among players.

Petitioner further reasons the following:

A POSITA would have found it obvious to combine Frenkel's teaching of determining whether players are colluding or cheating with Bryson's system to achieve Bryson's goals of enforcing laws surrounding game play and inhibit cheating by players. EX[1003] ¶292 (citing EX[1004] 25:55–60). Doing so would have resulted in decreasing cheating and “illicit” activity during game play in Bryson's system. *Id.*

A POSITA would have been motivated to combine the host computer system of Frenkel with the server-based gaming system of Bryson to reduce cheating in Bryson's system. EX[1003] ¶294.

Id. at 81–82, 83.

In our view, Petitioner points to structural components that correspond, or are structurally equivalent, to the “tournament administration module” and “risk management module” that are recited in claim 21. Although Patent Owner seemingly provides no meaningful construction of those terms, or any the Module Terms, Patent Owner, nevertheless takes the position that the structure in the prior art on which Petitioner relies to account for those terms is insufficient. *See, e.g.*, PO Resp. 33–37. There is a clear tension in that position. Indeed, left wanting from that position is any cogent specificity as to why in connection with limitation 21[e], for instance, Frenkel's “tournament processor 312” and “collusion detector processor 318” are not corresponding structure, or structural equivalents, of relevant structure set forth in the Specification of the '220 patent. We further do not discern that Patent Owner disputes that the operation or function of tournament processor 312 and collusion detector processor 318 that are described in Frenkel function in the manner recited in the claims.

In reviewing the record before us, we conclude that Petitioner has presented a more robust and comprehensive case that the combined teachings of Bryson, Frenkel, and Amaitis account for the required Module Terms of claims 21–24.²⁵

b) Remaining Limitations of Claims 21–24

Petitioner explains where all the remaining limitations of claims 21–24 are found in the prior art. *See* Pet. 75–86. Outside of the above-noted Module Terms, Patent Owner does not dispute that any other limitations of claims 21–24 are absent from the combined teachings of Bryson, Frenkel, and Amaitis. We conclude that Petitioner has identified where all the features required by claims 21–24 are present in those combined teachings. *See id.*

c) Petitioner’s Explanation and Reasoning for Combining the teachings of Bryson, Frenkel, and Amaitis

Petitioner provides reasoning as to why a person of ordinary skill in the art would have combined the teachings of Bryson, Frenkel, and Amaitis so as to arrive at the system set forth in claims 21–24. *See* Pet. 73–75. In particular, Petitioner proposes that “Frenkel discloses implementing the well-known concept of risk management for a gaming operator in the context of networked gaming system for peer-to-peer gaming.” *Id.* at 74 (citing Ex. 1003 ¶ 274; Ex. 1007 ¶ 35). Petitioner also reasons:

A POSITA would have been motivated to apply Frenkel’s teaching to employ collusion detection software in the multi-player games disclosed in Bryson, such as poker and blackjack.

²⁵ We reach the same conclusion in connection with the Module Terms that appear in claims 11, 12, and 18, which are challenged in Ground 6 involving the combined teachings of Bryson and Schlottmann. *See* Pet. 69–71.

EX[1003] ¶275. This would have yielded the predictable result of enabling Bryson’s system to perform risk management of the players and their client devices in the gaming network, thereby increasing player-trust and overall usage of the combined system. *Id.* (citing EX[1056] 6, 11). Moreover, Frenkel’s collusion monitoring teachings would further one of Bryson’s goals of “prevent[ing] cheating and satisfy[ing] regulatory requirements.” *Id.* (citing EX[1004] 25:55-60).

Id.

Petitioner additionally submits that a POSITA would have been motivated to include a “horse racing” or “auto racing” type of “sporting tournament” game as taught by Amaitis in the combined system of Bryson and Frenkel to achieve Bryson’s goal of “provid[ing] more versatile and exciting methods and devices’ that include additional game types.” *Id.* at 74–75 (citing Ex. 1003 ¶ 276; Ex. 1004, 1:26–29).

Although acknowledging Petitioner’s expressed reasoning to combine the teachings of the prior art, Patent Owner contends that “the Petition lacks articulation of a possible modification of the reference in the Petition and the Nicely Declaration.” *See* PO Resp. 38. Patent Owner expresses that neither the Petition nor Mr. Nicely has explained “**how** Bryson’s system would be modified in order to incorporate Frenkel’s teachings.” *See* PO Resp. 39. Patent Owner proceeds to discuss potential problems or difficulties that, in Patent Owner’s view, might arise so as to inhibit a reasonable expectation of success in combining the teachings of the references. *See id.* at 39–44.

Patent Owner’s arguments are unpersuasive. Petitioner relies on components or aspects of each of Frenkel’s and Amaitis’s gaming system to simply operate as they are intended to in conjunction with Bryson’s gaming system. Although during oral argument Patent Owner expressed that it was not making a “bodily incorporation argument” (*see, e.g.*, Tr. 93:4–6), that is

seemingly the thrust of Patent Owner’s position in condemning the Petition for not specifically identifying where particular components would be situated in a system based on the combined teachings of the prior art. There is no requirement, however, in an obviousness inquiry of a showing of how any particular feature may be directly or bodily incorporated into any particular system or device. *See Allied Erecting & Dismantling Co. v. Genesis Attachments, LLC*, 825 F.3d 1373, 1381 (Fed. Cir. 2016) (quoting *In re Keller*, 642 F.2d 413, 425 (CCPA 1981)) (“The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference[.]”)

We further reject Patent Owner’s argument that a skilled artisan would not have reasonably expected success in implementing components or aspects of Frenkel and Amaitis into Bryson’s system so as to function for their intended purpose. We note that there is no disagreement between the parties as to the level of ordinary skill in the art. In that respect, there is no dispute that a skilled artisan in this case has a background in computer engineering, or similar discipline, and experience in the development of gambling game hardware and software functionality. *See supra* § II.B. Patent Owner does not explain credibly why a skilled artisan with that relevant education and experience would have been unable to address routine implementation issues or technical difficulties that may arise in combining the teachings of the pertinent prior art, all of which are directed to similar matters of network based interactive gaming.

We have fully considered Patent Owner’s arguments made in challenging the propriety of combining the teachings of Bryson, Frenkel, and Amaitis, and the declaration testimony of Dr. Lane on which Patent Owner relies (*see, e.g.*, PO Resp. 38–44; PO Sur-reply 14–15; Ex. 2005

¶¶ 173–178), but conclude that they do not adequately account for the teachings of the prior art or of the level of ordinary skill in the art. We find more persuasive Petitioner’s contentions (*see, e.g.*, Pet. 73–86), and credit Mr. Nicely’s supporting testimony (*see, e.g.*, Ex. 1003 ¶¶ 269–307), as Petitioner and Mr. Nicely’s positions are more consistent with what a person of ordinary skill in the art, who is also a person of ordinary creativity (*see KSR*, 550 U.S. at 421), would have understood from the teachings of the prior art and how to amalgamate those teachings. Specifically, we determine that Petitioner has established that a skilled artisan would have had adequate reason to combine the teachings of Bryson, Frenkel, and Amaitis, and a reasonable expectation of doing so, to arrive at the system set forth in claims 21–24 of the ’220 patent.

2. Summary: Ground 8

Accordingly, having considered the respective positions of the parties, and in light of the record before us, we conclude that Petitioner has established, by a preponderance of the evidence, that claims 21–24 are unpatentable based on the combined teachings of Bryson, Frenkel, and Amaitis. *See* Pet. 73–86.

H. Ground 4: Based on Bryson and Amaitis

Petitioner proposes that claims 10, 17, and 20 would have been unpatentable based on the combined teachings of Bryson and Amaitis. *See* Pet. 57–63. Patent Owner disagrees, arguing that Petitioner has not shown a reasonable expectation of success in combining the teachings of Bryson and Amaitis. *See* PO Resp. 58–59; PO Sur-reply 24.

Patent Owner’s arguments in connection with Ground 4 are similar in form as those advanced, and discussed above, with respect to Ground 8. Principally, Patent Owner contends that the proposed combination is “unclear” and that Petitioner has not explained adequately “how” Amaitis’s teachings would be applied to Bryson’s system. *See, e.g.*, PO Resp. 58–59.

The Petition adequately sets forth the basis for relying on Amaitis’s teachings in conjunction with those of Bryson. *See* Pet. 57–63. For example, in accounting for limitations of claims 10, 17, and 20, Petitioner points to such aspects of Amaitis’s teachings pertaining to “peer-to-peer wireless gaming,” and using technology, e.g., “geo-fencing,” for finding a device’s location and matching players based on certain parameters. *See* Pet. 59–63. Petitioner also sets forth that a skilled artisan would have combined the teaching of Bryson and Amaitis, reasoning, for instance, the following:

Bryson and Amaitis are directed to similar games, including “sports wagering or wagering on other types of events,” “card games (e.g., poker and blackjack),” “slot games,” and “games of skill such as solitaire,” which can be played from similar client devices, such as a home PC, mobile device, or casino gaming machine via a gaming server-based architecture. EX[1003] ¶227 (citing EX[1004] 13:51–56, 8:18–23; EX[1005] ¶¶22, 27). A POSITA therefore would have had a reasonable expectation of success in employing the features of Amaitis’s gaming server for peer-to-peer gaming to the similar architecture of Bryson’s server-based gaming server, and this would have merely entailed routine software implementation well within the ordinary level of skill in the art. *Id.*

Moreover, Amaitis also discloses obvious geolocation-related features alluded to but not expressly disclosed in Bryson, such as identifying location using a “geo-fence.” EX[1003] ¶228 (citing EX[1005] ¶¶57, 90–94). A POSITA would have been motivated to combine these teachings because Amaitis’s disclosure of using “geo-fencing” to “ensure that a mobile station beyond state lines does not access the gaming system,” expressly

articulates what would have already been known to a POSITA: that geo-fencing could be used to configure a mobile device to present different gaming options based on its presence within a geofenced location. *Id.* (citing EX[1004] 8:30–39).

Id. at 58–59.

We find Petitioner’s reasoning for combining Amaitis’s teachings with those of Bryson, including that noted above, to be clear and adequately underpinned by the teachings of the prior art and Mr. Nicely’s supporting testimony. Thus, we agree with Petitioner (*see* Pet. Reply 24–25), that the Petition adequately sets forth (1) the basis of Petitioner’s reliance on Amaitis teachings as a part of Ground 4, (2) reasoning for combining Amaitis’s teachings with those of Bryson, and (3) a reasonable expectation of success in so combining those teachings. We find unpersuasive Patent Owner’s arguments to the contrary.

Furthermore, we are not persuaded that it would take “undue experimentation” on the part of a person of ordinary skill in the art to combine the teachings of Bryson and Amaitis. *See* PO Resp. 59. Patent Owner’s assertion that Petitioner has failed to show that a skilled artisan could “easily” combine Bryson and Amaitis misses the mark. *See id.* at The relevant test is not whether a combination of prior art teachings is easy or hard, rather “the test for obviousness is what the combined teachings of the references would have suggested to those of ordinary skill in the art.” *In re Young*, 927 F.2d 588, 591 (Fed. Cir. 1991). Here, we conclude, as persuasively advanced by Petitioner, that the combined teachings of Bryson and Amaitis reasonably would have suggested the systems of claims 10, 17, and 20 to a person of ordinary skill in the art. *See* Pet. 57–63. We also credit Mr. Nicely’s supporting testimony to that effect. *See, e.g., Ex.* 1003 ¶¶ 220–228.

Accordingly, we conclude that Petitioner has established by a preponderance of the evidence that claims 10, 17, and 20 are unpatentable based on Bryson and Amaitis.

I. Ground 6: Based on Bryson and Schlottmann

Petitioner contends that claims 11–13 and 18 are unpatentable based on Bryson and Schlottmann. *See* Pet. 67–71.

1. Discussion: Ground 6

Patent Owner contends that, with respect to claims 11, 12, and 18, Ground 6 is insufficient because of Patent Owner’s proposed deficiencies in Petitioner’s construction of the Module Terms as they appear in claims 11, 12, and 18. *See* PO Resp. 57. Patent Owner argues that the reasoning it offered in connection with the Module Terms appearing in claim 21 also applies to claims 11, 12, and 18. *See id.* Patent Owner further submits that Petitioner has not shown a reasonable expectation of success in combining the teachings of Bryson and Schlottmann. *See id.* at 60–62.

As discussed above, we do not agree with Patent Owner as to the alleged deficiencies in Petitioner’s construction of the Module Terms. *See supra* § II.C.3. We also do not agree with Patent Owner’s arguments made in connection with the Module Terms in claim 21 as a part of Ground 8. *See supra* § II.G. We further are not persuaded of any deficiency in Ground 6 in connection with the Module Terms, and conclude that Petitioner has accounted for them adequately as they appear in claims 11, 12, and 18. *See* Pet. 67–71.

We additionally are not persuaded by Patent Owner’s theory that one of ordinary skill in the art would not have had a reasonable expectation of

success in combining Bryson and Schlottmann. Petitioner sets forth the following in the Petition:

Casinos have long conducted gaming tournaments where players are required to play games within a certain period of time and the scores or outcomes of those games are compared to determine a winner. EX[1003] ¶248 (citing EX[1006] ¶¶5–9 (“Background”). The ’220 Patent refers to this well-known structure for tournaments as a “delayed tournament.” *Id.* (citing EX[1001] 18:30-31). By the time of the ’220 Patent, it would have been well-understood by a POSITA that these types of tournaments were commonly conducted in both brick-and-mortar and online casinos. *Id.* ¶249 (citing EX[1006] ¶8).

Pet. 67.

Thus, Petitioner references “delayed tournament” play described in the ’220 patent, which we understand is encompassed in aspects of claims 11–13 and 18. Petitioner further explains the following

Schlottmann provides specific details of improving the delayed tournament experience in a server-based gaming system for remote, networked gaming clients. EX[1003] ¶251. Specifically, Schlottmann teaches a “central server” that communicates with gaming clients, including physical gaming machines and mobile devices, and “provide[s] tournament game play.” *Id.* (citing EX[1006] Abstract, ¶121). Schlottmann teaches providing “self-scheduled tournaments” where “multiple players compete in the tournament at overlapping or different times,” “[e]ach of the players play the tournament on a server based gaming machine ... during a designated time period (such as a day, a week, or a month) ... [and] [e]ach of the players ... [play] at different times, as long as the tournament play is *within the designated time period.*” *Id.* (citing EX[1006] ¶34).

Pet. 67–68.

Petitioner focuses on Schlottmann’s teachings of a “central server” and its function in communicating with gaming machines and devices to

facilitate the type of “tournament game play” understood as delayed tournament play. Petitioner further contends the following:

A POSITA would have been motivated to apply Schlottman[n]’s disclosure of delayed tournaments with Bryson’s teaching to conduct tournament game play of individual games that are well-suited for the delayed tournament structure, such as solitaire, blackjack, and other similar games that involve a “single player trying to get the best score possible.” EX[1003] ¶252 (citing EX[1001] 18:26–29). A POSITA would have found the structure of a delayed tournament particularly suitable for online gaming systems, where players are not physically present together, compete from mobile devices, and may encounter distractions that interrupt the game flow of a traditional synchronous, real-time competition. *Id.* Schlottmann expressly discloses conducting this type of delayed tournament in a networked gaming system for peer-to-peer gaming. *Id.*

It would have been obvious to a POSITA to combine Schlottmann’s teaching of a delayed tournament with Bryson’s disclosed use of “tournament” play, which would yield the predictable result of enabling Bryson’s gaming system to oversee a delayed tournament with the players and their client devices in the gaming network. *Id.* ¶253. This would have merely entailed software implementation well within the ordinary level of skill in the art. *Id.*

A POSITA would have been motivated to include the central server of Schlottmann in the server-based gaming system of Bryson to oversee administration of tournament game play for remote clients as contemplated by Bryson and taught by Schlottmann and to provide the benefits of Schlottmann’s self-scheduled tournaments to Bryson’s tournament games. *Id.*

Pet. 68–69, 70–71.

Thus, Petitioner expresses that a person of ordinary skill in the art would have had adequate reason to implement aspects of Schlottmann’s teachings as a part of Bryson’s disclosure, including those connected with its

“central server” as a part of a “server-based gaming system,” in order to conduct or administer certain types of tournament play.

In similar vein as with Ground 4, Patent Owner objects to the Petition for not, in Patent Owner’s view, “address[ing] how Schlottmann’s central server would be included in Bryson’s server-based gaming system in order to support delayed tournament games” and “ignoring” challenges that a skilled artisan may face in combining Bryson and Schlottmann’s teachings *See* PO Resp. 60–62. Patent Owner also characterizes Ground 6 as “unclear” and “vague[].” *See id.* at 60. We do not agree with Patent Owner. Instead, we agree with Petitioner that each of Bryson and Schlottmann “contemplate[s] tournament play in server-based and online gaming systems” and that Schlottmann provides details as to a particular architecture of a system involving a “central server” so as to provide a known tournament play approach. Pet. 67–68 (citing Ex. 1003 ¶¶ 250, 251). Patent Owner does not meaningfully explain why a person of ordinary skill in the art would somehow be unable to implement Schlottmann’s teachings in combination with Bryson’s gaming system to administer a particular type of tournament game play. We are persuaded by Petitioner (Pet. 67–71; Pet. Reply 25), and credit Mr. Nicely’s testimony (*see* Ex. 1003, ¶¶ 248–253), that a skilled artisan would have understood how to do so with a “predictable result” (Ex. 1003 ¶ 253), and would have “expect[ed] a successful combination” (Pet. Reply 25).

2. *Summary: Ground 6*

Accordingly, having considered the complete record before us, we are persuaded that Petitioner has shown by a preponderance of the evidence that claims 11–13 and 18 are unpatentable based on Bryson and Schlottmann. *See* Pet. 67–71.

J. Grounds 5 and 7

Petitioner contends that claims 4, 7, and 25 are unpatentable based on Bryson, Harkham, and Amaitis (Ground 5). *See* Pet. 63–66. Petitioner contends that claim 5 is unpatentable over Bryson, Harkham, Amaitis, and Oberberger (Ground 7). *See id.* at 71–72.

Each of claims 4, 5, 7, and 25 ultimately depends from claim 1. Patent Owner does not offer any separate arguments as to claims 4, 5, 7, and 25, and expresses that the defects it alleges for claim 1 also apply to those claims. *See* PO Resp. 57. As discussed above, we are not persuaded by any of Patent Owner’s arguments pertaining to claim 1. We also are not persuaded by those arguments as to claims 4, 5, 7, and 25.

On this record, we conclude that Petitioner has shown by a preponderance of the evidence that (1) claims 4, 7, and 25 are unpatentable based on Bryson, Harkham, and Amaitis (*see* Pet. 63–66), and (2) claim 5 is unpatentable over Bryson, Harkham, Amaitis, and Oberberger (*see id.* at 71–72).

K. Petitioner’s Motion to Exclude Evidence

Petitioner moves to exclude Exhibit 2005, the declaration testimony of Dr. Lane submitted with the Patent Owner Response, from evidence. *See* Paper 31, 1. Petitioner asserts: (1) Dr. Lane is not qualified as a person of

ordinary skill in the art, on the alleged basis that he has inadequate gambling knowledge and inadequate experience in developing gambling technology (*see id.* at 1, 3–7); (2) Dr. Lane’s testimony is unsupported by evidence and is unreliable (*see id.* at 1, 7–10); and (3) Dr. Lane’s testimony assesses obviousness at the wrong time frame (*see id.* at 1, 10–11). Petitioner also, in its Reply, asks that we give Dr. Lane’s testimony “no weight” due to his alleged lack of expert qualifications. *See* Pet. Reply 25–27.

Patent Owner disputes each of Petitioner’s assertions in the Motion (*see* Paper 34), and opposes Petitioner’s request to give Dr. Lane’s testimony no weight even if it is admitted (*see* PO Sur-reply 24–25). Petitioner replies in support of the Motion (*see* Paper 35).

We have considered Petitioner’s arguments and determine that these go to the weight we should give Dr. Lane’s testimony, not its admissibility. *See* *Microfinancial, Inc. v. Premier Holidays Int’l*, 385 F.3d 72, 81 (1st Cir. 2004) (“When the factual underpinning of an expert’s opinion is weak, it is a matter affecting the weight and credibility of the testimony—a question to be resolved by the [factfinder].”). As Petitioner notes, we have adopted Petitioner’s proffered level of ordinary skill in the art, which is a “bachelor’s degree in computer engineering, electrical engineering, computer science, applied mathematics, or a similar field, and at least two years of experience in the development of gambling game hardware or software functionality.” Pet. 20 (citing Ex. 1003 ¶ 30). Further, we agreed that “[a] person with less education but more relevant practical experience may also meet this standard.” *Id.*

We note that Dr. Lane has several years education and experience in game design and development. Ex. 2002. This includes his over two decades as a professor at the University of Pennsylvania and his current role

as Professor of Practice and the Director of the Computer Graphics and Game Technology (CGGT) Masters Program. *Id.* at 1. While Dr. Lane does not have experience in gambling games per se, we note that there need not be a perfect match between the expert's qualifications and the patent at issue. *See SEB S.A. v. Montgomery Ward & Co.*, 594 F.3d 1360, 1373 (Fed. Cir. 2010). It is not necessary for Dr. Lane demonstrate that he is an expert in poker or any specific wager-based games. Indeed, to testify as an expert under Fed. Rule Evid. 702, a person need not be one of ordinary skill, but may be “qualified in the pertinent art.” *See B/E Aerospace, Inc. v. MAG Aerospace Indus. LLC*, Paper 104 at 13–14 (Final Written Decision) (declining to exclude the testimony of expert witness that lacked hands-on experience with the claimed subject matter).

We agree with Patent Owner that Dr. Lane's education; his experience as a “professor who teaches gaming at the University of Pennsylvania”; and his “25-years of experience researching, developing and commercializing technology for use in Interactive Entertainment” provides him sufficient experience and knowledge of the claimed subject matter for his opinion to remain of record. Paper 34 at 1–3 (citing Ex. 2001 ¶ 17; Ex. 2005 ¶¶ 5–7, 12; Ex. 1068, 21:22–26:8). As Dr. Lane explains, he is familiar “with the knowledge, skill and experience of those skilled in the art of developing game software and systems” and has been involved in the development of many games including:

the development of an Olympics Decathlon PC game developed for AT&T to be played in conjunction with the 1996 Olympics that was held in Atlanta, GA. This project involved development not only of the game software, but also a network interface that enabled players to compete in various events concurrently with those being held at the Olympics and upload their scores to a server to determine the winner in each event.

Ex. 2005 ¶ 12.

Moreover, we take into account the qualifications of an expert witness—and any shortcomings revealed through cross-examination—when evaluating the weight to be given that witness’s testimony. To the extent that Dr. Lane’s testimony lacks reliability or applies the wrong invalidity analysis, we have afforded that testimony little to no weight. Conclusory and/or unsupported testimony is entitled to little weight. *See* 37 C.F.R. § 42.65(a) (“Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight.”); *Upjohn Co. v. Mova Pharm. Corp.*, 225 F.3d 1306, 1311 (Fed. Cir. 2000) (“Lack of factual support for expert opinion to factual determinations, however, may render the testimony of little probative value in a validity determination.”) (quoting *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 294 (Fed. Cir. 1985)). However, the wholesale exclusion of a witness’s declarations is rarely called for in a proceeding before the Board. For the instant proceeding, we have considered Dr. Lane’s qualifications and the underlying bases for his statements in determining the weight to be given his testimony. Instead of disregarding Dr. Lane’s testimony in its entirety, we evaluate each of his assertions on their own, in light of the explanation offered, his answers on the specific topics under cross-examination, and the other evidence of record.

Accordingly, we deny Petitioner’s motion to exclude.

L. Patent Owner’s Motion to Exclude

Patent Owner seeks to exclude Exhibit 1069. Paper 32. Because we do not rely on Exhibit 1069 as a part of this Final Written Decision, we dismiss Patent Owner’s Motion to Exclude as moot.

III. CONCLUSION

In summary, we determine that a preponderance of the evidence establishes that claims 1–30 of the '220 patent are unpatentable. That determination is shown in the following table:²⁶

Claim(s)	35 U.S.C. §	Reference(s)/Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
8, 9, 14– 16, 19	102	Bryson ²⁷		
8, 9, 14– 16, 19	103	Bryson, Knowledge of Person of Ordinary Skill in the Art	8, 9, 14–16, 19	
1–3, 6, 26–30	103	Bryson, Harkham	1–3, 6, 26–30	
10, 17, 20	103	Bryson, Amaitis	10, 17, 20	
4, 7, 25	103	Bryson, Harkham, Amaitis	4, 7, 25	
11–13, 18	103	Bryson, Schlottmann	11–13, 18	
5	103	Bryson, Harkham, Amaitis,	5	

²⁶ 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).

²⁷ We do not reach the proposed anticipation ground advanced under 35 U.S.C. § 102 based on Bryson because we determine that those same claims are unpatentable for obviousness under 35 U.S.C. § 103 based on Bryson.

		Oberberger		
21–24	103	Bryson, Frenkel, Amaitis	21–24	
Overall Outcome			1–30	

IV. ORDER

In consideration of the foregoing, it is

ORDERED that claims 1–30 of the '220 patent have been shown to be unpatentable;

FURTHER ORDERED that Petitioner's Motion to Exclude (Paper 31) is *denied*;

FURTHER ORDERED that Patent Owner's Motion to Exclude (Paper 32) is *dismissed* as moot; and

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

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Patent 10,497,220 B2

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