

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FANDUEL, INC.
DRAFTKINGS, INC.
BWIN.PARTY DIGITAL ENTERTAINMENT PLC,
Petitioner,

v.

CG TECHNOLOGY DEVELOPMENT, LLC,
Patent Owner.

Case IPR2017-00902
Patent RE39,818

Before THOMAS L. GIANNETTI, BARRY L. GROSSMAN, and
MITCHELL G. WEATHERLY, *Administrative Patent Judges*.

GROSSMAN, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
Incorporating Decision on
Patent Owner's Motion to Exclude Evidence
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

I. INTRODUCTION

A. Background

FanDuel, Inc., DraftKings, Inc., and bwin.party Digital Entertainment PLC (collectively, “Petitioner”), filed a petition, Paper 1 (“Petition” or “Pet.”), to institute an *inter partes* review of claims 1, 16, 20, 21, 24, 25, 31, and 32 (the “challenged claims”) of U.S. Patent RE39,818 (the “’818 patent”). 35 U.S.C. § 311. CG Technology Development, LLC (“Patent Owner”) timely filed a Preliminary Response. Paper 13 (“Prelim. Resp.”).

We concluded that Petitioner satisfied the burden, under 35 U.S.C. § 314(a), to show that there was a reasonable likelihood that Petitioner would prevail with respect to at least one of the challenged claims. Accordingly, on behalf of the Director (37 C.F.R. § 42.4(a)), we instituted an *inter partes* review of all the challenged claims on all of the grounds asserted in the Petition. Paper 14 (“Dec. Inst.”).

Patent Owner filed a Response to the Petition (Paper 22, “PO Resp.”), and Petitioner filed a Reply (Paper 25, “Pet. Reply”).

Petitioner submitted 30 exhibits (Exs. 1001–1127, 1031–1033). Petitioner relies, in part, on the Declaration testimony of Mr. Garry Kitchen (Ex. 1010).

Patent Owner submitted three exhibits (Exs. 2001–2003). Patent Owner relies, in part, on the Declaration testimony of Dr. Robert Akl (Ex. 2002).

Patent Owner filed a Motion to Exclude exhibits 1009, 1026, and 1027. Paper 30 (“Mot. Excl.”). Petitioner filed a Response to the Motion to

Exclude. Paper 39 (Resp. Mot. Excl.). Patent Owner filed a Reply. Paper 40 (Reply Mot. Excl.).

A hearing was held July 16, 2018. Paper 44 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6. We enter this Final Written Decision pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73.

Petitioner has the burden of proving unpatentability of a claim by a preponderance of the evidence. 35 U.S.C. § 316(e).

Based on the findings and conclusions below, we determine that Petitioner has proven by a preponderance of the evidence that claims 1, 16, 20, 21, 24, 25, 31, and 32 would have been obvious and, thus, are unpatentable.

B. Related Proceedings

The parties state that the ’818 patent has been asserted in the following patent infringement lawsuits: *CG Technology Development, LLC et al. v. DraftKings, Inc.*, Case No. 2:16-cv-00781 (D. Nevada); *CG Technology Development, LLC et al. v. FanDuel, Inc.*, Case No. 2:16-cv-00801 (D. Nevada); *CG Technology Development, LLC et al. v. bwin.party digital entertainment PLC et al.*, Case No. 2:16-cv-00871 (D. Nevada); *CG Technology Development, LLC et al. v. Double Down Interactive, LLC*, Case No. 2:16-cv-00858 (D. Nevada); *CG Technology Development, LLC et al. v. Big Fish Games, Inc.*, Case No. 2:16-cv-00857 (D. Nevada); *CG Technology Development, LLC et al. v. 888 Holdings PLC*, Case No. 2:16-cv-00856 (D. Nevada); and *CG Technology Development, LLC et al. v. Zynga, Inc.*, Case No. 2:16-cv-00859 (D. Nevada). Pet. 1–2; Paper 34, 1–3.

The parties also state that the '818 patent is involved in an ownership dispute in *Russell Slifer v. CG Technology Development, L.P.*, Case No. 1:14-cv- 09661 (S.D.N.Y). Pet. 2; Paper 34, 2.

C. Asserted Grounds of Unpatentability

Petitioner challenges claims on the following three grounds (Pet. 5):

References	Basis	Claims Challenged
Walker ¹ and Kelly ²	§ 103(a) ³	20, 21, 24, and 31, 32
Walker, Kelly, and Viescas ⁴	§ 103(a)	25
Kelly and Walker	§ 103(a)	1, 16

The order in which references are listed is of no significance to the substance of the asserted basis of unpatentability. Thus, Petitioner's Ground 1 and Ground 3 are the same and are considered as a single asserted basis of unpatentability. Dec. Inst. 3; *see, e.g., In re Bush*, 296 F.2d 491, 496 (CCPA 1961) (“[i]n a case of this type where a rejection is predicated on two references each containing pertinent disclosure which has been pointed out to the applicant, we deem it to be of no significance, but merely a matter of exposition, that the rejection is stated to be on A in view of B

¹ U.S. Pat. 5,779,549, issued July 14, 1998. Ex. 1007.

² U.S. Pat. 5,816,918, issued Oct. 6, 1998. Ex. 1008.

³ The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 296–07 (2011), took effect on September 16, 2012. Because the application for the patent at issue in this proceeding has an effective filing date before that date, we refer to the pre-AIA versions of the statute.

⁴ John L. Viescas, *The Official Guide to the Prodigy Service*, Microsoft Press (1991). Ex. 1009.

instead of B in view of A, or to term one reference primary and the other secondary.”); *see also In re Cook*, 372 F.2d 563, 566 n.4 (CCPA 1967).

Petitioner has no objection to combining its asserted grounds 1 and 3 into a single ground. Tr. 6:2–10 (“We don’t have an objection” to combining grounds 1 and 3 into a single ground.).

Petitioner also adds the phrase “in further view of the Knowledge of a PHOSITA” to Petitioner’s Grounds 2 and 3. Pet. 5. This phrase is superfluous. The applicable statute states that the determination of patentability is based on whether “the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” 35 U.S.C. § 103(a). Thus, the knowledge, skill, and creativity of a person having ordinary skill in the art (“PHOSITA”) is a factor in every determination of patentability under § 103(a). *KSR Int’l v. Teleflex Inc.*, 550 U.S. 398, 406 (2007); *see also id.* at 421 (“A person of ordinary skill is also a person of ordinary creativity.”).

Thus, in determining patentability of all asserted grounds and all challenged claims as defined by the Petition, we consider whether claims 1, 16, 20, 21, 24, 31, and 32 would have been obvious based on Walker and Kelly; and whether claim 25 would have been obvious based on Walker, Kelly, and Viescas. Accordingly, this review is “[i]n accordance with or in conformance to the petition.” *SAS Institute Inc. v. Iancu*, 138 S. Ct. 1348, 1356 (2018) (internal quotations omitted).

II. ANALYSIS

A. The '818 Patent

The '818 patent discloses an interactive video system, such as a video game system, that allows the system to recognize individual users and adjust the game to each individual player, such as by varying the skill level.

Ex. 1001, 1:21–24; 2:55–57. Personalized operation is based on personal data transmitted from wireless game controllers. *Id.* at 1:49–53.

The disclosed system includes standard computer components to operate the system, including a central processing unit (CPU) connected to a video screen, and a wireless game controller. *Id.* at 2:60–67. The wireless controller transmits control signals to the CPU. *Id.* at 2:67–3:1. The controller can include a number of inputs, or switches, for providing signals to operate a video game. *Id.* at 3:1–3.

Figures 1 and 2 of the '818 patent, reproduced below, illustrate the disclosed invention (Figure 2) in comparison to the prior art (Figure 1).

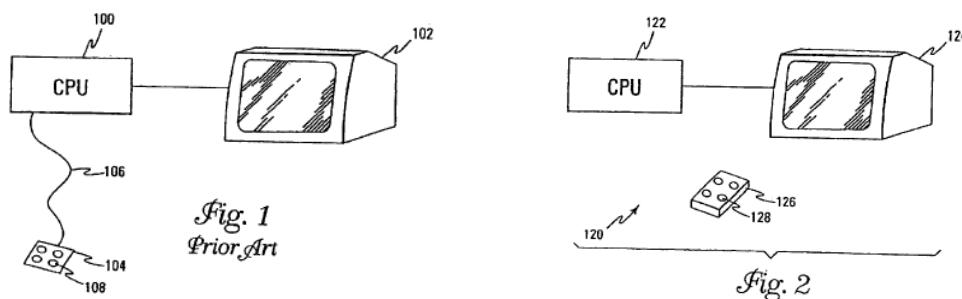


Figure 1 illustrates a prior art video game system. *Id.* at 2:20. Figure 2 illustrates a video game system of the invention disclosed in the '818 patent. *Id.* at 2:21. In these figures, the only difference illustrated is that prior art game controller 104 is connected to CPU 100 by control wire 106 (*id.* at 2:44–55), whereas game controller 126 of the disclosed invention is connected wirelessly to CPU 122 (*id.* at 2:60–3:1).

As explained in the Specification, another significant difference is that prior art controller 104 is “not personalized” (*id.* at 2:54–55), whereas controller 126 includes non-volatile memory 134 used to store personal information about the user of the controller (*id.* at 3:26–34).

How and where the personal data is stored and retrieved, and what personal data is stored and retrieved, are the key disputes between the parties.

In one disclosed embodiment, the controller includes a non-volatile memory device used to store personal information regarding the user, such as name, age, previous video game scores and statistics, and current skill level for a video game. Ex. 1001, 3:29–37. Each user can have a “personalized controller.” *Id.* at 3:41–42. By including the age of a user as part of the stored personal information, operation of a video game can be prohibited based on the user’s age, or adjusted to the age of the user. *Id.* at 3:42–48. According to Patent Owner, this provides a form of “parental control” for the video game. Tr. 38:20–23; *see also* Ex. 1001, 3:42–46 (“By including the age of a user, it will be appreciated that amusement games designed for a specific age group is not operated by an inappropriate user. Thus, operation of a video game can be prohibited based on the user age.”). Patent Owner admitted, however, that the claims were *not* limited to parental control devices, but also could apply to “situations other than parents protecting their children from unwanted content.” *Id.* at 44:6–20.

In another embodiment, the CPU also may contain a memory device that also stores personal data corresponding to the personal data stored in the controller. This allows the wireless controller to transmit a user identification code to the CPU, which allows the CPU to retrieve stored

personalized information for a specific user from the CPU memory.

Ex. 1001, 3:49–58.

In yet another embodiment, wireless controller 126 stores the detailed personalized data in its non-volatile memory 134. *Id.* at 3:66–67. Controller 126 transmits this data to CPU 122, where it is stored in the CPU’s memory 136 “for use during the operation of the game.” *Id.* at 3:67–4:2. In this embodiment, memory 136 located in CPU 122 can be volatile or non-volatile because the personalized data does not have to be stored beyond the operation of a game. *Id.* at 4:14–18. Non-volatile memory 134 in controller 126 remains as the location for “permanent storage of personalized user data.” *Id.* at 4:3–4. Thus, this embodiment requires that the CPU transmit updated information to the controller via transmitter 140 for updating the data stored in the “permanent” memory in the wireless controller.

Restricting access to a game based on the user’s age is recited in all the challenged claims. *E.g., see* claim 1, Ex. 1001, 5:55–56 (“the processor unit authorizes game execution based on the user age”). Whether the cited references disclose a control based on age, as claimed in the challenged claims, is a significant dispute between the parties.

B. Illustrative Claims

The challenged claims are all independent. They are directed to a “video game system” (claim 1); a “method of operating an interactive video system” (claim 16); a “game apparatus” (claim 20); a “method of playing an interactive game” (claim 21); a “gaming system” (claims 24 and 25); a “method of playing a game” (claim 31); and a “method of operating a game” (claim 32). Ex. 1001, 5:40–8:48. All challenged claims include a limitation

that authorizes or permits a player (“user” in claim 1) to play a game based at least in part on the age of the game player or whether the player’s age falls within a defined age group.

Claims 1 and 16 recite that at least some player data, including at least the player’s age, and previous video game scores and/or statistics (“historical game performance”) is stored on the controller. *E.g.*, claim 1, *id.* at 5:45–52 (“a personalized portable control comprising . . . a non-volatile memory for storing personalized identification information corresponding to a user of the controller”); claim 16 *id.* at 7:8–9 (“storing the updated personalized information in a memory of the controller”).

Claims 20, 21, 24, 31, and 32 recite that player data is stored on the processor of a remote server. *E.g.*, claim 20, *id.* at 7:25–30 (signals are transmitted from the wireless transmitter “to a processor,” with the identification code signal being “used by the processor” to retrieve identification data).

Claims 1 and 20, reproduced below, are representative.

1. A video game system comprising:

a processor unit for executing game instructions and displaying video images on a display screen, the processor includes a receiver for receiving wireless identification and control signal transmissions; and

a personalized portable control comprising:

a plurality of control switches for generating game control signals;

a non-volatile memory for storing personalized identification information corresponding to a user of the controller, the personalized identification information comprises a user age, and historical game performance data; and

a transmitter for wireless transmitting of the personalized identification and game control signals to the processor unit, wherein the processor unit *authorizes game execution based on the user age*, further the processor unit comprises a transmitting [sic] for transmitting the historical game performance data to the portable controller.

Ex. 1001, 40–59 (emphases added).

20. A game apparatus comprising:

a wireless transmitter to *transmit* both an identification code and game control signals *to a processor* executing a game, *the identification code is used by the processor to retrieve identification data* and authorize game play *based at least in part on an age of a player*; and

a plurality of input controls to allow the player to interact with the processor to play the game.

Id. at 7:25–32 (emphases added).

C. Claim Construction

The Petition was filed March 13, 2017. Paper 5. The '818 patent is a reissue of U.S. Patent No. 6,342,010 (“’010 patent”). Ex. 1001, INID Code (64).⁵ The '010 patent was filed on November 14, 1997, and issued on January 29, 2002. *Id.* Accordingly, the '818 patent was in force when the Petition was filed, but is now expired, having expired on November 14, 2017. 35 U.S.C. § 154(a)(2) (“such grant shall be for a term beginning on

⁵ “INID” is an acronym for “Internationally agreed Numbers for the Identification of (bibliographic) Data.” It provides a means whereby the various patent data in languages foreign to the reader can be identified without knowledge of the language used. INID codes are used by most patent offices throughout the world. They have been applied to U.S. patents since August 4, 1970. MPEP 901.05(b). INID Code (64) refers to an earlier publication which is “reissued.”

the date on which the patent issues and ending 20 years from the date on which the application for the patent was filed in the United States”); § 251 (“the Director shall . . . reissue the patent . . . for the unexpired term of the original patent.”).

When a patent in an IPR expires during the pendency of the proceeding, as here, the Board construes claims of the expired patent in accordance with *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). See *Wasica Fin. GmbH v. Cont'l Auto. Sys., Inc.*, 853 F.3d 1272, 1279 (Fed. Cir. 2017). Under that standard, words of a claim are generally given their ordinary and customary meaning. *Phillips*, 415 F.3d at 1312 (“the words of a claim are generally given their ordinary and customary meaning”) (citations and internal quote marks omitted). “[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.” *Id.* at 1313. Importantly, the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification. *Id.*

Only terms that are in controversy need to be construed expressly, and then only to the extent necessary to resolve the controversy. *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

Because claim terms generally are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure (*Phillips*, 415 F.3d at 1312–14 (citing *Vitronics Corp. v. Conceptoronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996))), we first address the level of ordinary skill in the art.

1. Level of Ordinary Skill

The level of skill in the art is “a prism or lens” through which we view the prior art and the claimed invention. *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (“the level of skill in the art is a prism or lens through which a judge, jury, or the Board views the prior art and the claimed invention”).

Factors pertinent to a determination of the level of ordinary skill in the art include: (1) educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology, and (6) educational level of workers active in the field. *Environmental Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 696–697 (Fed. Cir. 1983) (citing *Orthopedic Equip. Co. v. All Orthopedic Appliances, Inc.*, 707 F.2d 1376, 1381–82 (Fed. Cir. 1983)). Not all such factors may be present in every case, and one or more of these or other factors may predominate in a particular case. *Id.* Moreover, these factors are not exhaustive but are merely a guide to determining the level of ordinary skill in the art. *Daiichi Sankyo Co. Ltd, Inc. v. Apotex, Inc.*, 501 F.3d 1254, 1256 (Fed. Cir. 2007). In determining a level of ordinary skill, we also may look to the prior art, which may reflect an appropriate skill level. *Okajima*, 261 F.3d at 1355. Additionally, the Supreme Court informs us that “[a] person of ordinary skill is also a person of ordinary creativity, not an automaton.” *KSR*, 550 U.S. at 421.

Petitioner asserts that as of November 14, 1997, “a person having ordinary skill in the art (PHOSITA)” would have had a B.S. degree in Electrical Engineering or Computer Engineering, or equivalent, and

possessed at least two years of experience in the design and development of video game-related hardware and software.” Pet. 10 (citing Ex. 1010, ¶¶ 48–49).⁶ Mr. Kitchen testifies that in forming his opinion he considered “the type of problems encountered in the art, the solutions to those problems, the rapidity with which innovations are made in the field, the sophistication of the technology, and the education level of active workers in the field.” Ex. 1010 ¶ 48. He also “placed [himself] back in the time frame of the claimed invention” and “considered the colleagues with whom [he] had worked at that time.” *Id.*

Patent Owner agrees with Petitioner’s proposed level of skill except for limiting the experience of the person of ordinary skill to experience in designing and developing “*video game-related* hardware and software.” PO Resp. 3–4 (emphasis added (citing Ex. 2002 ¶ 16)).⁷ Dr. Akl testifies

⁶ Exhibit 1010 is a declaration from Mr. Garry Kitchen. Mr. Kitchen is an engineer, video game designer, and consultant. Ex. 1010 ¶ 3. Mr. Kitchen has over 35 years of experience running game development companies, with experience “in all game genres, including console, PC retail and download, online, mobile, and dedicated electronic.” *Id.* at ¶¶ 4, 7, 9–12, 14. He has designed hundreds of commercially-released video game products, across a breadth of hardware platforms. *Id.* He has received numerous awards and industry recognition for his work. *Id.* at ¶¶ 8, 9, 16. We find that Mr. Kitchen is qualified, based on his experience, training, and education to testify in the form of an opinion on issues where his scientific, technical, and other specialized knowledge will help the Board, as trier of fact, understand the evidence or to determine a fact in issue. Fed. R. Evid. 702.

⁷ Exhibit 2002 is a declaration from Dr. Robert Akl. Dr. Akl studied, taught, practiced, and researched in the field of computer hardware/software, e.g., mobile computing, telecommunications, computer security, and mobile applications for over twenty years. Ex. 2001 ¶ 2. He is a tenured Associate Professor in the Department of Computer Science and Engineering at the University of North Texas, in Denton, Texas. *Id.* at ¶ 7. He also serves as

that he “considered factors such as the educational level and years of experience of those working in the pertinent art; the types of problems encountered in the art; the teachings of the prior art; patents and publications of other persons or companies; and the sophistication of the technology.” Ex. 2002 ¶ 14. Based on these factors, Dr. Akl’s opinion is that a person of ordinary skill “would have had at least a B.S. degree in Electrical Engineering, Computer Engineering, Computer Science or similar field, and possessed around two years’ experience in design, development, and/or analysis of hardware and software, or equivalent.” *Id.* at ¶ 15. Thus, Dr. Akl does not limit the experience factor to video games. Dr. Akl opines that the person of ordinary skill would have general experience working with “hardware and software.” *Id.*

According to Patent Owner, including specific reference to “video game-related” experience is effectively “meaningless” because “anyone with two years’ experience in design, development, and/or analysis of hardware and software *would have* the ‘videogame-related’ experience.” PO Resp. 4 (emphasis added) (citing Ex. 2002 ¶ 16). Thus, Patent Owner does not assert that Petitioner’s proposed level of skill is wrong, only that it is “unnecessary” because it is inherent or already included in the more general

Associate Chair of Graduate Studies in this Department. *Id.* Dr. Akl authored and co-authored over 75 journal publications, conference proceedings, technical papers, book chapters, and technical presentations in a broad array of communications-related technologies, including networking and wireless communication. *Id.* at ¶ 11. We find that Dr. Akl is qualified, based on his experience, training, and education to testify in the form of an opinion on issues where his scientific, technical, and other specialized knowledge will help the Board, as trier of fact, understand the evidence or to determine a fact in issue. Fed. R. Evid. 702.

statement of experience favored by Patent Owner. *Id.* Patent Owner also states, however, that including specific reference to “video-game related” experience in the level of ordinary skill is a distinction without a substantive difference, because it “should not impact the outcome of these proceedings.” *Id.* (citing Ex. 2002, ¶ 16 (Dr. Akl specifying that his opinions would be the same regardless of which definition is applied)). Petitioner agrees that to the extent that Petitioner’s and Patent Owner’s proposed levels of skill are different, that difference is not outcome determinative in this case. Tr. 28:1–9 (“I think the outcome is the same.”).

Each of the challenged claims refers to a “game.” *E.g., see*, Ex. 1001, 5:40, 51–52 (claim 1, reciting “A video game system,” and referring to “historical game performance data”). The two references, Walker and Kelly, relied on by Petitioner to establish unpatentability of all the challenged claims, refer specifically to games. *See* Ex. 1007 (Walker), 1:5–6 (“The present invention relates generally to games. And more particularly to online electronic tournament games.”) and Ex. 1008 (Kelly), Abstract (“A game is provided on a game apparatus for a player to play in exchange for monetary input, and prize credits are credited to the player based on the game outcome.”).

The parties have not directed us to any evidence in the record before us of the educational level of the inventor; rapidity with which innovations are made; or the educational level of workers active in the field. Based on the type of problems encountered in the art, as discussed in the ’818 patent, prior art solutions to those problems, the sophistication of the technology, and the testimony of Mr. Kitchen and Dr. Akl, all as discussed above, and

further discussed below, we adopt Petitioner’s proposed level of ordinary skill.

We find that a person of ordinary skill in a technology relevant to the challenged claims would have had a B.S. degree in Electrical Engineering or Computer Engineering, or equivalent, and also would have had at least two years of experience in the design and development of video game-related hardware and software.

2. *Authorize Play Based on Age*

Petitioner asserts “that all claim terms be given their ordinary and customary meanings and that no explicit claim constructions are necessary.” Pet. 10.

Patent Owner does not assert any specific claim construction. In arguing its position on the merits of the asserted grounds, however, Patent Owner states Petitioner’s analysis ignores the “plain and ordinary meaning” of the claim language. PO Resp. 16; *see also id.* at 17. This suggests that Patent Owner and Petitioner agree that we should apply the plain, ordinary, and customary meaning to claim construction. They just differ on what is that meaning. The parties also fail to articulate their position on the ordinary and customary meaning of key claim terms in dispute.

In our Decision to Institute an IPR trial, we stated:

We determine that an explicit construction of the claims is not necessary for the purposes of determining whether there is a reasonable likelihood that the Petitioner would prevail with respect to at least one of the claims challenged in the Petition. This determination does not preclude the parties from arguing their proposed constructions of the claims during trial. *Indeed, the parties are hereby given notice that claim construction, in general, is an issue to be addressed at trial. Claim construction*

will be determined at the close of all the evidence and after any hearing. The parties are expected to assert all their claim construction arguments and evidence in the Petition, Patent Owner's Response, Petitioner's Reply, or otherwise during trial, as permitted by our rules.

Dec. Inst. 7 (emphasis added). Notwithstanding this notice, neither party submitted a specific construction of the ordinary and customary meaning of clearly disputed claim terms.

Claim construction also was discussed at the hearing. *E.g.* Tr. 13:21–14:26. The Board pointed out that the parties failed to articulate the ordinary and customary meaning of claim terms where it was clear the parties had different views of the ordinary and customary meaning of these terms. *Id.*

Following the hearing, neither party requested authorization to further address claim construction issues.

The meaning of the “authorize play based on age” clause in each of the challenged claims (*see* discussion below) is a claim term on which the parties have different positions. In their merits arguments, the parties have argued their respective claim constructions, even if they have not been labeled as such. The dispute between the parties concerning the “authorize play based on age” clause centers on the word “authorize.”

According to Patent Owner, “restricting tournament participation,” as disclosed in Kelly, is not the same as “authorizing game execution,” as recited in the challenged claims. PO Resp. 14; *see generally id.* at 14–17 (discussing Patent Owner’s position on this issue). Patent Owner argues:

[t]he plain and ordinary meaning of the claim language ties the authorization to a game—not to features after access has already been allowed. This is supported by the specification of the RE’818 patent, which explains, for example, that “operation of a video game can be *prohibited* based on the user age.”

PO Resp. 16. (citing Ex. 1001, 3:45–46 (emphasis added by Patent Owner); Ex. 2002, ¶ 57. Dr. Akl, Patent Owner’s expert, merely repeats Patent Owner’s argument without any additional underlying facts or data on which Dr. Akl’s opinion is based. *See* Ex. 2002 ¶ 57. Dr. Akl admitted, however, that his declaration testimony was not “articulating an exact definition.” Ex. 1031, 24:6–8).⁸

Dr. Akl testified at his deposition that he had “done the analysis” (*id.* at 24:7) on what the claim term “authorizing” means (*id.* at 23:19–24:12); that he stated an opinion in his Declaration in this case that the challenged claims are different from the Kelly reference based on the word “authorize” (*id.* at 24:13–16); but did so “without articulating an exact definition” (*id.* at 24:6–8). He refused, however, to state a specific construction of the claim term “authorizing” at his deposition. *Id.* at 23:19–24:12. Without disclosing the underlying facts or data on which his opinion is based, Dr. Akl’s declaration and deposition testimony on claim construction for the “authorize play based on age” clause are entitled to minimal weight. 37 C.F.R. § 42.65(a).

Neither the Petition nor Petitioner’s Reply state a specific claim construction for the “authorize play based on age” clause in each of the challenged claims. Petitioner’s Reply, however argued that “PO’s [Patent Owner’s] narrow claim interpretation should be rejected.” Pet. Reply 4. Petitioner asserts that “PO contends ‘authorizing’ gameplay as used in

⁸ Exhibit 1031 is the transcript of Dr. Akl’s deposition. Each page of Exhibit 1031 includes four reduced-size transcript pages. To provide specific citations to this deposition transcript, we cite to the transcript page number and line number, rather than to the exhibit page number.

claims 1 and 16 requires ‘**restricting**/authorizing game play **in its entirety**, based on an age of a player.’ *Id.* at 4–5 (citing PO Response, 15 (emphases added by Petitioner)). It is Petitioner’s position that “the plain language of the claims does not support” Patent Owner’s argument. Pet. Reply 5. According to Petitioner, “there is no requirement that gameplay be “restricted/authorized . . . in its entirety” as alleged by PO.” *Id.* Thus, Petitioner argues what the claim term *does not* mean, without stating what it *does* mean.

It is clear that there is a fundamental dispute between the parties as to whether authorizing or allowing a user to play a game based on the age of the user, as recited in all the challenged claims (*e.g.*, *see*, claim 1, Ex. 1001, 5:55–56 (“wherein the processor unit authorizes game execution based on the user age”), is substantively different from requiring players to meet certain conditions or predefined characteristics, such as age, before participating in a game, as disclosed in Kelly (Ex. 1007, 22:42–46 (“In some embodiments, players can also be required to meet certain conditions before participating in a credit game or a tournament.”); 42:67–43:3 (“participation based on predefined characteristics (age . . . etc.”). To resolve this dispute, we provide a specific construction of the “authorize play based on age” clause in each of the challenged claims.

Although each of the challenged claims recite a limitation authorizing or allowing⁹ a user to play a game based on the age of the user, the specific

⁹ All the challenged claims use the word “authorize” or a variant of this word, except for claim 32, which uses the word “allowing,” as quoted in the chart of the “Authorize Play Based on Age” clauses.

language in each of the challenged claims varies,¹⁰ as set out in the chart below (all emphasis is added):

Claim	Authorize Play Based on Age Clause
Claim 1	“wherein the processor unit <i>authorizes game execution</i> based on the user <i>age</i> ” (Ex. 1001, 5:55–56)
Claim 16	<i>authorizing operation of a video game</i> based upon the user <i>age</i> ” (<i>id.</i> at 7:3–4)
Claim 20	“ <i>authorize game play</i> based at least in part on an <i>age</i> of a player” (<i>id.</i> at 7:29–30)
Claim 21	“ <i>authorizing play of the interactive game</i> based at least in part on the data and an <i>age</i> of the player” (<i>id.</i> at 7:36–37)
Claim 24	“ <i>authorize game play</i> based on an <i>age</i> of a player” (<i>id.</i> at 7:52–53)
Claim 25	“the CPU <i>authorizes game participation</i> if a player’s <i>age</i> is within a <i>defined age group</i> ” (<i>id.</i> at 8:8–9)
Claim 31	“ <i>authorizing play of the game</i> based at least in part on the data and an <i>age</i> of a game player” (<i>id.</i> at 8:37–38)
Claim 32	“ <i>allowing play of the game</i> based at least in part on the <i>age</i> of the game player” (<i>id.</i> at 8:48–49)

The parties have not directed us to any persuasive evidence that the various clauses in the chart above have substantively different meanings. We recognize that there is a presumption that two independent claims have different scope when different words or phrases are used in those claims. *Seachange Int’l, Inc. v. C-COR, Inc.*, 413 F.3d 1361, 1369 (Fed. Cir. 2005) (citations omitted). However, this presumption is not a hard and fast rule of construction. *Id.* (citation omitted). “[C]laims that are written in different words may ultimately cover substantially the same subject matter.” *Id.* (citing *Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1480

¹⁰ As shown in the chart heading, we refer to each of these various clauses, as the “authorize play based on age” clause.

(Fed. Cir. 1998)). As we explain below, this is the case here. Use of various forms of the word “authorize,” or its synonym “allow,” and various expressions for stating a user or player’s age, does not change the ordinary and customary meaning of these claims.

We agree with the parties that the words of a claim generally are given their ordinary and customary meaning. *Phillips*, 415 F.3d at 1312–13. A specific statement of what is that ordinary and customary meaning for claim terms that are in dispute will be helpful in understanding our analysis. Thus, we determine the ordinary and customary meaning of disputed terms even though the parties chose not to do so. To provide this meaning, we look to “the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art.” *Phillips*, 415 F.3d at 1314 (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004).

a) *The Claims*

We begin with the words of the claims. Because we determine that each of the “authorize play based on age” clauses in the chart above are synonymous, we use the language of claim 1 as representative for specific analysis.

Representative claim 1 states “wherein the processor unit authorizes game execution based on the user age.” Ex. 1001, 5:55–56. Neither this clause nor any other term in the claim suggests that the term “authorizes” has a meaning other than its ordinary and customary meaning.

b) The Specification

The word “authorize” or any form of this word, such as “authorizes” or “authorizing,” does *not* appear in the written description portion of the Specification. Thus, for each challenged claim, except for claim 32, which uses the word “allowing” rather than “authorize,” we have what has been called “the curse of . . . claims, divorced from the written description.” *Retractable Techs., Inc. v. Becton, Dickinson & Co.*, 653 F.3d 1296, 1311 (Fed. Cir. 2011) (Plager, Circuit Judge, concurring).

The word “allow,” or a form of this word, such as “allows” or “allowing,” as used in claim 32, does appear in the written description. *See e.g.*, Ex. 1001, 1:21–24 (“It would be desirable to allow each user to have a personality which interacts with the game, such that video game have [sic] the ability to ‘recognize’ a user and adjust game operation accordingly.”).

The written description further discloses, “[t]he controller *allows* for the custom operation of an interactive video system based upon personal data transmitted from the controller.” *Id.* at 1:50–53 (emphasis added). Personal data or information can include, but is not limited to, a user name, *age*, previous video game scores and statistics, and a current skill level for a video game.” *Id.* at 3:35–37 (emphasis added).

The only specific disclosure of the function and purpose of the “authorize play based on age” clauses states that it is a control that either prohibits or adjusts operation of a video game based on the user’s age. The written description states:

It will be appreciated that a controller of the present invention provides an advantage in *allowing* each child in a household to have a personalized controller. *By including the age of a user*, it will be appreciated that amusement games designed for a specific

age group is not operated by an inappropriate user. Thus, operation of a video game can be prohibited based on the user age. Therefore, the controller provides a minimum level of supervision. Further, educational video “games” can be adjusted to the age of the user.

Id. at 3:39–48 (emphases added). This passage is the only passage in the written description of the ’818 patent that uses the word “age” in any context. Counsel for Patent Owner referred to this as a disclosure of a “parental control.” Tr. 38:20–23. *See also* Ex. 1003, 15 (the prosecution history; “Applicant notes that it is common to see a label on games, toys, movies and the like a phrase similar to ‘appropriate for ages X and above’.” Thus, a commercial embodiment of the present invention could have the game threshold value provided by the game manufacture such that the game controller can compare the user’s age to the threshold.”).

c) Prosecution History

The ’818 patent is a reissue of the ’010 patent. *See* Ex. 1001, INID Code (64).

The prosecution history of the application that matured into the ’818 patent is consistent with the written description of the invention in that it links authorizing game play with prohibiting or adjusting game play.

In the prosecution of the application that matured into the original ’010 patent, the Examiner stated a reason for allowance was that “the prior art fails to show or clearly suggest providing a personalized controller/game system including the feature of a user’s age utilized to *authorize or adjust* video game play, as claimed.” Ex. 1003, 10.

The Examiner’s allowance of that application followed Applicant’s amendment of his application, in which the Applicant amended the

Specification to state specifically that “Thus, operation of a video game can be *prohibited* based on user age.” *Id.* at 13 (emphasis added). Applicant further argued that “original claim 20 and the specification teaches that *game operation can be prohibited in response to the age data*. Even one of nominal skill would understand that the controller compares the age data to a threshold age for a specific game being executed, and determine[s] *authorization*.” *Id.* at 15 (emphasis added). This argument clearly links prohibiting play of a video game based on age with authorization to play the game. *See also id.* at 55 (“Although, the reference relates to obtaining feedback from a user to determine real-time classroom understanding, there is no suggestion that a student would be prohibited from interacting in class based on their age.”).

Applicant filed an application to reissue the ’010 patent. *See* 35 U.S.C. § 251.¹¹ The “error” that the Applicant sought to correct was that “Claims to the invention do not need to be limited to a user age and historical game performance data. As such the claims can be broadened.” Ex. 1004, 76. As summarized in the chart of the “authorize play based on age” clauses above, however, the challenged claims in this proceeding each continue to include a limitation based on the age of a user or player. Thus,

¹¹ “Whenever any patent is, through error without any deceptive intention, deemed wholly or partly inoperative or invalid, by reason of a defective specification or drawing, or by reason of the patentee claiming more or less than he had a right to claim in the patent, the Director shall, on the surrender of such patent and the payment of the fee required by law, reissue the patent for the invention disclosed in the original patent, and in accordance with a new and amended application, for the unexpired part of the term of the original patent. No new matter shall be introduced into the application for reissue.” 35 U.S.C. § 251.

the claims were *not* broadened concerning age. Moreover, claims 1 and 16 continue to recite both user age and historical game data. *See* Ex. 1001, 5:50–52; 6:65–67

Some of the challenged claims in the reissue patent, however, do not recite “historical game performance” data as a factor in authorizing game play. Claim 21, for example, recites that authorization is based on “the data *and* an age of the player” (Ex. 1001, 7:37–38) (emphasis added), but does not define what is the “data.” Claim 31 has a similar recitation that authorization is based on “data” *and* “age of a game player,” but does not state or define the scope of the “data.”

The reissue application did not change the written description of the original ’010 patent.

Preliminary Amendments were filed that corrected a typographical error (Ex. 1004, 62), changing the word “delay” in claim 1 to “display” (*id.* at 55), and also added new claims 20–35. *Id.* at 41–49. Thus, the reissue application included original claims 1–19 from the ’010 patent (with the correction of a typo in claim 1) and new claims 20–35.

Claims 1–35 were examined and issued without any rejection or objection by the Examiner. Ex. 1004, 27–30. The Examiner stated the reason for allowance of the claims in the reissue application as follows: “claims 1–35 are allowable over the art of record in that the prior art does not suggest transmitting [from a] controller personal information including age where a video game content is adjusted.” *Id.* at 28.

This reissue application issued as the ’818 patent.

*d) Conclusion for the
“authorize play based on age” Clauses*

Ultimately, the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim. The construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be, in the end, the correct construction.

Renishaw PLC v. Marposs Societa’ per Azioni, 158 F.3d 1243, 1250 (Fed. Cir. 1998) (citations omitted).

Based on the evidence and analysis above, we determine that the ordinary and customary meaning the “authorize play based on age” clauses would have had to a person of ordinary skill in the art in question at the time of the invention is a control that either prohibits or adjusts operation of a video game based on the user’s age. This construction stays true to the claim language and most naturally aligns with the patent’s description of the invention.

We are well-aware that for a formal adjudication, like the one at issue here, the Administrative Procedure Act (“APA”) requires the Board to “timely inform[]” the parties of “the matters of fact and law asserted.” 5 U.S.C. § 554(b)(3); *see Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1080 (Fed. Cir. 2015). Section 554(b)(3) has been applied to mean that “an agency may not change theories in midstream without giving respondents reasonable notice of the change” and “the opportunity to present argument under the new theory.” *Belden Inc. v. Berk-Tek*, 805 F. 3d at 1080 (quoting *Rodale Press, Inc. v. FTC*, 407 F.2d 1252, 1256–57 (D.C.Cir.1968)). This is not a situation in which we have changed theories in midstream. We, and the parties, have been consistent throughout this proceeding in stating that

the claims are construed based on their ordinary and customary meaning. In their merits arguments, the parties each have argued a specific claim construction, even though not labeled as such. We merely state expressly in this Decision our determination of the ordinary and customary meaning of one disputed term based on the parties' arguments and evidence.

D. Asserted Unpatentability

***1. Claims 1, 16, 20, 21, 24, 31, and 32
Based on Walker and Kelly***

Petitioner asserts that claims 1, 16, 20, 21, 24, 31, and 32 would have been obvious under 35 U.S.C. § 103(a) based on Walker and Kelly. *E.g.*, Pet. 5. Patent Owner asserts that the challenged claims are patentable over Walker and Kelly because the proposed combination of Walker and Kelly does not disclose or suggest the invention as claimed. *E.g.*, PO Resp. 1–2.

Section 103(a) forbids issuance of a patent when “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” *KSR*, 550 U.S. at 406. 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 ordinary skill in the art; and (4) when available, evidence such as commercial success, long felt but unsolved needs, and failure of others. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966); *see KSR*, 550 U.S. at 407 (“While the sequence of these questions might be reordered in any particular case, the [Graham] factors continue to define the inquiry that controls.”). The Court

in *Graham* explained that these factual inquiries promote “uniformity and definiteness,” for “[w]hat is obvious is not a question upon which there is likely to be uniformity of thought in every given factual context.” 383 U.S. at 18.

The Supreme Court made clear that we apply “an expansive and flexible approach” to the question of obviousness. *KSR*, 550 U.S. at 415. Whether a patent claiming the combination of prior art elements would have been obvious is determined by whether the improvement is more than the predictable use of prior art elements according to their established functions. *Id.* at 417. To reach this conclusion, however, it is not enough to show merely that the prior art includes separate references covering each separate limitation in a challenged claim. *Unigene Labs., Inc. v. Apotex, Inc.*, 655 F.3d 1352, 1360 (Fed. Cir. 2011). Rather, obviousness additionally requires that a person of ordinary skill at the time of the invention “would have selected and combined those prior art elements in the normal course of research and development to yield the claimed invention.” *Id.*; *see also Orexo AB v. Actavis Elizabeth LLC*, No. 2017-1333, 2018 WL 4288961, at *7 (Fed. Cir. Sept. 10, 2018) (“The question is not whether the various references separately taught components of the ’330 Patent formulation, but whether the prior art suggested the selection and combination achieved by the ’330 inventors.”).

Moreover, in determining the differences between the prior art and the claims, the question under 35 U.S.C. § 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. *Litton Indus. Prods., Inc. v. Solid State Sys. Corp.*, 755 F. 2d 158, 164 (Fed. Cir. 1985) (“It is elementary that the

claimed invention must be considered as a whole in deciding the question of obviousness.” (citation omitted)); *see also Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1537 (Fed. Cir. 1983) (“[T]he question under 35 U.S.C. § 103 is not whether the differences themselves would have been obvious. Consideration of differences, like each of the findings set forth in *Graham*, is but an aid in reaching the ultimate determination of whether the claimed invention as a whole would have been obvious.” (citation omitted)).

“A reference must be considered for everything it teaches by way of technology and is not limited to the particular invention it is describing and attempting to protect.” *EWP Corp. v. Reliance Universal Inc.*, 755 F.2d 898, 907 (Fed. Cir. 1985).

As a factfinder, we also must be aware “of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning.” *KSR*, 550 U.S. at 421. This does not deny us, however, “recourse to common sense” or to that which the prior art teaches. *Id.*

Against this general background, we consider the references, other evidence, and arguments on which the parties rely.

a) Scope and Content of the Prior Art

(1) Walker (Ex. 1007)

We make the following findings concerning the disclosure of Walker.

Walker discloses a system for playing electronic games. Ex. 1007, 1:5–6. The games are played “online” (*id.*), either through a wireless telecommunication network or through a ground-based network, such as the Internet (*id.* at 5:21–23). This networked system allows multiple players to compete in game tournaments. *Id.* at 5:9–12 (“FIG. 1 shows a distributed electronic tournament system 100 with a central controller 102 connected to

a number of input/output (I/O) devices, 104 and 106, in the present invention.”).¹² Tournament games might be commercially available software programs such as Microsoft Golf, or proprietary game software designed exclusively for online tournament play. *Id.* at 5:45–48.

The input/output device may be a video gaming console, a personal computer, handheld electronic device, “and the like.” *Id.* at 5:12–14. The central controller may be a workstation, a minicomputer, or other type of computation device, typically in the form of a server computer connected to a public or private network. *Id.* at 5:14–17. The I/O devices are located remotely from the central controller. *Id.* at 5:17–18.

In order to play the game or tournament disclosed in Walker, a player must be registered. Registration requires that the player enter information such as name, *age*, address, payment preferences, etc. *Id.* at 6:35–42 (emphasis added). The central controller generates a unique identifier for the player based on the entered personal information. *Id.* at 6:40–42. The system then stores the personal information and the unique identifier in the central controller database. *Id.*; *see also* Fig. 3 (showing flow chart steps 308–318). Once registered, the next time the player logs on to the

¹² The terminology in Walker can be confusing in the context of the terminology in the ’818 patent. Walker refers to a “central controller 102 connected to a number of input/output (I/O) devices, 104 and 106.” Ex. 1007, 5:10–11. Central controller 102 is the CPU or server. *Id.* at 5:14–17 (“The central controller may be a workstation, a minicomputer, or other type of computation device, typically in the form of a server computer connected to a public or private network.”). The ’818 patent discloses a “wireless game controller 126” that provides control signals to the central processing unit 122. Ex. 1001, 2:60–3:5. Controller 126 in the ’818 patent is an input/output (I/O) device; controller 102 in Walker is a CPU or server.

game system, the player can use the unique identifier without repeating the registration process. *Id.* at 6:35–36 (“If the record already exists, the player is identified”). The process for registering is shown in Figure 3. *Id.* at 6:1–42. As shown in Figure 3, registration step 314 requires the player to enter “information such as name, age, address, etc.” *See id.* at 17:28–43 (identifying “Player Information/Demographics”).

Walker discloses that central controller 102 “prevents those players not qualified to play from participating in a tournament.” Ex. 1007, 8:54–56. In addition to name, address, and age, player information stored in central controller 102 may include “past performance data.” *Id.* at 15:30–34 (“When the player tries to register for the Master’s tournament, the central controller looks up the player’s unique identifier to check past performance data. If the performance data do not meet the criteria of the tournament, *registration is denied.*” (emphasis added)). Thus, Walker uses player data of past performance to prevent those players not qualified to play from participating in a tournament. Ex. 1007, 8:54–56. Walker teaches the player’s age as being part of the account information, or player data, collected. *Id.* at 6:37–40. Walker does not, however, state that the central controller authorizes game play based on the age of the player. *See* Tr. 7:8–11 (Counsel for Petitioner stated: Walker authorizes game play “not based on age, [but] based on player data, and that’s an important distinction.”).

If it is determined that the player is eligible to play, the controller in Walker sends an acknowledgment message to the associated I/O device. *Id.* at 6:62–65.

(2) Kelly (Ex. 1008)

We make the following findings concerning the disclosure of Kelly.

Kelly discloses a game unit used by a player to play networked games. Kelly's game unit includes a communication device that communicates with a centralized game server over a network. Ex. 1008, 12:13–15. Kelly contains a long, comprehensive written description of Kelly's disclosed devices that includes forty-three columns of text and several different embodiments or variations of its disclosed game system. *See* Ex. 1008.

In one embodiment, the communication device is “a wireless transmitter/receiver for communicating without the use of cables or wires.” *Id.* at 12:37–40; 17:9–17. Kelly discloses that “players can also be required to meet certain conditions before participating” in certain games or tournaments. *Id.* at 22:42–44. Player participation may be “based on predefined characteristics (*age*, member of a group or club, ‘preferred customer’ status, whether they have achieved a ‘tournament goal’ in a game, etc.), providing various skill levels or handicaps, and providing special tournaments with different prizes and conditions.” *Id.* at 42:67–43:5. Thus, Kelly expressly discloses using a player's age data to either allow or prohibit operation of a video game.

Kelly discloses that a player's “credit account” “can be implemented on storage devices such as memory, hard disk, etc. either *local to the individual game unit* or on a connected server that links multiple game units.” Ex. 1007, 24:7–11 (emphasis added). The credit account may include “a player ID (name, address, ID number, etc.)” *Id.* at 21:27–30.

b) Independent Claims 1 and 16

The parties group and argue claims 1 and 16 together. *E.g.* Pet. 42; PO Resp. 9). As discussed above in the Illustrative Claims section of this

Decision, claims 1 and 16 recite that user data is stored on the controller. *See*, claim 1, Ex. 1001, 5:45–52 (“a personalized portable control comprising . . . a non-volatile memory for storing personalized identification information corresponding to a user of the controller”); claim 16, *id.* at 6:65–67 (“transmitting personalized information from a controller using wireless transmissions”), and 7:8–9 (“storing the updated personalized information in a memory of the controller”). Claims 1 and 16 also each recite that the personalized information stored in the controller memory includes the user’s age and historical performance data. *Id.* at 5:50–52; 6:65–67.

Claims 1 and 16 recite substantively identical “authorize play based on age” clauses. Claim 1 recites “wherein the processor unit authorizes game execution based on the user age.” Ex. 1001, 5:55–56. Claim 16 recites “authorizing operation of a video game based upon the user age.” *Id.* at 7:3–4. The parties have not directed us to any persuasive evidence that these clauses are substantively different. As discussed in our Claim Construction section of this Decision, use of various forms of the word “authorize,” and various expressions for stating a user or player’s age, does not change the ordinary and customary meaning of these claims.

Petitioner provides a clause-by-clause analysis of claims 1 and 16 asserting where, in Petitioner’s view, Walker and Kelly disclose or suggest each element and limitation recited in claims 1 and 16, and why a person of ordinary skill at the time of the invention would have selected and combined those prior art elements to yield the claimed invention.

In general summary, Patent Owner argues that claims 1 and 16 “are patentable” because the proposed combinations of Kelly and Walker “do not render obvious (1) a processor unit authorizing game execution based on the

user age; (2) storing user age information in the personalized portable control; and (3) wireless transmitting of historical game performance data to the processor unit.” PO Resp. 1–2.

We address the parties’ arguments below.

(1) *Authorizing Game Execution Based on User Age*

Patent Owner asserts “*Walker* and *Kelly* do not Disclose or Render Obvious Authorizing Game Execution Based on a User Age.” PO Resp. 12 (*see* heading IV(A)(1)). According to Patent Owner, “*Kelly*’s *single* passing reference to ‘age’ has nothing to do with ‘authorizing game execution.’” *Id.* Patent Owner argues that *Kelly*’s reference to “age” merely “delineates how the player can play the game, namely the *type*, or category of tournament participation available to a player, based on predefined characteristics, namely, ‘an age of the player.’” *Id.* According to Patent Owner, what *Kelly* discloses “is merely a grouping of different players for purposes of certain tournament.” Tr. 44:10–15. We disagree.

We determined in our Claim Construction above that the ordinary and customary meaning of the “authorize play based on age” clauses is a control that either prohibits or adjusts operation of a video game based on the user’s age.

When considered in its totality, *Kelly* discloses that age and other collected player data can be used as a prerequisite to authorizing game play. This prerequisite either prohibits or adjusts operation of a video game.

Kelly first discloses:

In some embodiments, players can also be *required to meet certain conditions before participating* in a credit game or a tournament. For example, a player can be required to play a

predetermined number of games (e.g., 5) on a game unit 10 before being allowed to participate in a tournament.

Ex. 1008 at 22:42–46 (emphasis added) (the “required conditions disclosure”). This “required conditions disclosure” clearly discloses that meeting a predefined prerequisite is used in “some embodiments” to prohibit operation of a game for failure to meet the established prerequisite. This passage in Kelly does *not* mention age as one of the “certain conditions.” The only example given is based on past or historical performance data, *i.e.* number of past games played. Additionally, Kelly discloses that this past or historical data “can be stored with a player identification on a storage device or in memory or at a central database accessible by game apparatus 100.” *Id.* at 22:50–52.

In later describing a specific embodiment, Kelly discloses using the age of the game player as a prerequisite to playing a particular game. This specific embodiment is in the context of games played in tournaments. Kelly discloses that a tournament or game operator may designate “further characteristics” of the tournament, such as:

participation based on *predefined characteristics* (age, member of a group or club, ‘preferred customer’ status, whether they have achieved a ‘tournament goal’ in a game, etc.), providing various skill levels or handicaps, and providing special tournaments with different prizes and conditions.

Id. at 42:63–43:5 (emphases added) (the “age disclosure”).

These two quoted passages from Kelly, the “required conditions disclosure” (Ex. 1008, 22:42–46) and the “age disclosure” (*id.* at 42:63–43:5) are fundamental to the dispute between the parties.

Mr. Kitchen, Petitioner’s expert, relies on these two disclosures and testifies that “Kelly teaches authorizing a player’s in tournaments or games

based on age.” Ex. 1010 ¶ 57 (citing Kelly, Ex. 1008, 22:42–44; 42:63–43:5).

Patent Owner argues that the two disclosures from Kelly collectively “delineate[s] *how* the player can play the game.” PO Resp. 12 (emphasis added) (citing Akl Declaration, Ex. 2002 ¶ 51). Dr. Akl, Patent Owner’s expert, testifies that “*Kelly’s* disclosure thus teaches different tournament ‘participation’ groups, for the player to join based on predefined characteristics, not a restriction on whether a player may play in a tournament game.” Ex. 2002 ¶ 51. We disagree.

Kelly’s “required conditions disclosure” discloses that players can be required to meet certain conditions before participating in a game or a tournament. Ex. 1008 at 22:42–46. This is *not* a disclosure of “how” to play a game, or a disclosure of the group to which a player will be assigned. It is a disclosure of imposing conditions or requirements on whether a player will be allowed to play the game or participate in the tournament. Kelly discloses that meeting the “certain condition” is a prerequisite to authorizing game play. It is required before allowing a player to play. Kelly’s “age disclosure” discloses that the predefined requirements for authorizing play can include the age of the player. *Id.* at 42:63–43:5.

Patent Owner argues that Petitioner attempts to improperly “link” Kelly’s “‘age’ discussion with a separate and distinct discussion in Kelly 20 columns earlier regarding actual conditions which a player must meet or otherwise be prohibited from participating in a credit game or a tournament.” PO Resp. 13. According to Patent Owner, because Kelly’s disclosure that participation in a tournament can be based on age (Ex. 1008, 42:63–43:5) does not specifically refer to the “prohibitive language” of

requiring certain conditions to be met before being allowed to participate in a tournament (*id.* at 22:42–46), it is improper to consider these two disclosures together. Again, we disagree. See *In re Applied Materials, Inc.*, 692 F.3d 1289, 1298 (Fed. Cir. 2012) (“A reference must be considered for everything that it teaches, not simply the described invention or a preferred embodiment.”) (citing *EWP Corp. v. Reliance Universal Inc.*, 755 F.2d 898, 907 (Fed. Cir. 1985)). Indeed, “[o]n the issue of obviousness, the combined teachings of the prior art as a whole must be considered.” *EWP*, 755 F.2d at 907. A skilled artisan cannot be assumed to ignore Kelly’s general “required conditions disclosure” for “some embodiments” merely because it is not repeated verbatim in the specific embodiment that also mentions the “age disclosure.”

KSR teaches that “[a] person of ordinary skill is also a person of ordinary creativity, not an automaton.” 550 U.S. at 421. In many cases a person of ordinary skill will be able to fit the multiple teachings of the prior together “like pieces of a puzzle.” *Id.* at 420. Here, most of the pieces of the puzzle are in a single reference, Kelly. *KSR* does *not* require that a person of ordinary skill “can only perform combinations of a puzzle element A with a perfectly fitting puzzle element B.” See *ClassCo, Inc. v. Apple, Inc.*, 838 F.3d 1214, 1219 (Fed. Cir. 2016). To the contrary, *KSR* instructs that the obviousness inquiry requires a flexible approach. 550 U.S. at 415.

(2) Restricting Participation versus Games Execution

Patent Owner also argues that restricting tournament participation is not the same as “authorizing game execution.” PO Resp. 14–17 (*see* heading IV(A)(1)(b)).

At the hearing, Counsel for Patent Owner argued that there is a distinction between authorization to play a game, and authorization to play that same game in a tournament. Tr. 46, 1–6 (Q.: “I take it your argument makes a distinction between a tournament and an individual game, is that correct?” A.: “Yes, that’s correct.”). Counsel for Patent Owner cited Dr. Akl’s Declaration testimony for evidentiary support. *Id.* at 48, 12–17.

Dr. Akl testifies:

Kelly’s age-based participation restriction does not restrict game play in its entirety, based on the user age. In Kelly, the age-based participation is disclosed in connection with coordinated networked tournament game play—not game play in its entirety. In accordance with Kelly’s disclosure, a player would still be allowed to play in the credit or ticket game as an individual, regardless of whether the player met the age requirement for the tournament.

Ex. 2002 ¶ 54 (citations to Kelly omitted). Dr. Akl also testifies that the “[t]he claims thus require authorizing—*i.e.*, not prohibiting—game execution. But authorizing or prohibiting *tournament participation* is just one feature of *Kelly*’s game play experience, which has nothing to do with authorizing or prohibiting *execution play of a game* in *Kelly*.” *Id.* ¶ 55.

Dr. Akl acknowledges the disclosure in Kelly of authorizing or prohibiting “game play *in its entirety*.” *Id.* ¶ 56 (citing Ex. 1008, 22:41–44). Dr. Akl states, however, that “this portion of *Kelly*’s disclosure says nothing about any such conditions and circumstances being based on the age of the user.” *Id.* Thus, Dr. Akl’s opinion is based on disregarding the disclosure in Kelly regarding age (Ex. 1008, 42:63–43:5) because it is in the context of a specific embodiment different from the disclosure of authorizing or prohibiting game play in its entirety (Ex. 1008, 22:41–44). We determine

that Dr. Akl's testimony represents an unduly narrow, and unpersuasive, characterization of how a degreed engineer with specific game experience would understand the totality of Kelly's disclosure.

As discussed above, the issue of whether the claimed invention would have been obvious is determined from the perspective of a person of ordinary skill in the relevant technology. Here, we have held that the level of skill is high, a B.S. degree in Electrical Engineering or Computer Engineering, or equivalent, and at least two years of experience in the design and development of video game-related hardware and software. This educated and experienced person would have considered the references for everything that they teach, not simply the described invention or a preferred embodiment. *In re Applied Materials, Inc.*, 692 F.3d at 1298 (“A reference must be considered for everything that it teaches, not simply the described invention or a preferred embodiment.”).

Kelly's disclosures and the testimonial evidence of Mr. Kitchen evidence establish that the “predefined characteristics” in Kelly (Ex. 1008, 42:63–43:5), which specifically include age, game experience, and other data about a user, are a specific embodiment of the “certain conditions” also described in Kelly (*id.* at 22:42–46) and discussed above. In both the “required conditions disclosure” and the “age disclosure”, meeting the established condition is a prerequisite to participation in a game or tournament. If a player satisfies the prerequisites, the player is authorized to play. If a player *does not* satisfy the prerequisites, the player is *not* authorized to play. The fact that a person may qualify for a *different* game, such as a different age group or a different experience level, is irrelevant to the claimed invention, which requires only that authorization is based on

age. Indeed, allowing a player to play a game or tournament in one category, *e.g.*, players *under* 18 years old, is, in fact, restricting or prohibiting that player from other categories, *e.g.*, players *over* 18 years old. The under 18 year old player is excluded entirely from the over 18 year old games.

Moreover, there is no persuasive evidence to establish substantive distinctions between games played in general and games played in a tournament. For example, whether playing tennis at the U.S. Open Tennis Championship tournament or playing tennis at a neighborhood tennis court, one is still playing the game of tennis. The prerequisites for authorization to play at the U.S. Open, however, are far more rigorous than the prerequisites, if any, at the neighborhood court.

The substantive recitation in claim 1 is that the “processor unit authorizes game execution based on the user age.” Ex. 1001, 5:55–56. This is exactly what Kelly discloses in the “required conditions disclosure” (Ex. 1008, 22:42–46) and the “age disclosure” (*id.* at 42:63–43:5); authorization to play a game, whether the game is part of a tournament or not, can be based on the age and/or other collected data of the player, such as historical game data. There is no persuasive evidence that a skilled artisan would ignore the clear disclosure in Kelly to use age to authorize or prohibit game play merely because it is disclosed in the context of games played in a tournament. *KSR*, 550 U.S. at 420–21 (“The idea that a designer hoping to make an adjustable electronic pedal would ignore Asano because Asano was designed to solve the constant ratio problem makes little sense.”).

Based on the disclosures in Kelly and the testimony of Mr. Kitchen and Dr. Akl, we find that a preponderance of the evidence establishes that

Kelly's disclosure that a player must meet predefined characteristics, such as age, experience, or other collected data before the player is authorized or allowed to participate in a game is a game control that prohibits operation of a video game based on the user's age and/or other data and thus discloses the "authorize play based on age" clauses in the challenged claims.

Applying the flexible approach mandated by *KSR*, and based on Kelly's disclosures and the testimonial evidence about these disclosures, as discussed above, we determine that the evidence establishes that Kelly discloses the "authorize play based on age" clauses recited in the challenged claims.

(3) *A Portable Controller*

Claim 1 recites "a personalized *portable* control." Ex. 1001, 5:45. Claim 16 does *not* have a similar limitation.

As discussed above, Kelly discloses a wireless controller, but does not disclose specifically that the wireless controller is "portable." Kelly discloses:

Game unit 10 can take a variety of forms, including a video game apparatus having one or more display screens, a mechanical game having playing pieces and/or other moving mechanical parts, a personal computer system, a "network computer", a television including or connected to a microprocessor (e.g. a "set top box") for Internet or other information access, or other apparatus.

Ex. 1008, 557–63. Petitioner concedes that Kelly "is silent with regard to whether or not the game unit may be a portable device," as recited in claim 1. Pet. 49. Petitioner turns to Walker for the disclosure of a portable controller.

Walker discloses central controller 102 connected to a number of input/output (I/O) devices 104 and 106. Ex. 1007, 5:9–11. The input/output devices may be a video gaming console, a personal computer, *handheld electronic device*, and the like.” *Id.* at 5:12–14 (emphasis added). Petitioner asserts that a person of ordinary skill would “understand that any handheld electronic device is portable because the user can carry it.” Pet. 49 (citing Kitchen Declaration, Ex. 1010 ¶ 96). Mr. Kitchen merely repeats Petitioner’s argument without stating the underlying facts or data on which his opinion is based. *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.”). Nonetheless, considering the education and experience level of a person of ordinary skill, *i.e.*, a B.S. degree in Electrical Engineering or Computer Engineering, or equivalent, and at least two years of experience in the design and development of video game-related hardware and software, we give Mr. Kitchen’s testimony some probative weight. We determine that the evidence establishes that a person of ordinary skill in this case would understand that a handheld electronic device, as disclosed in Walker, is “portable,” as recited in the challenged claims.

(4) *Storing Age Data*

Claim 1 also recites that the personalized portable control includes a non-volatile memory for storing personalized identification information corresponding to a user of the controller. Ex. 1001, 5:45–50. The personalized identification information includes the user’s “age, and historical game performance data.” *Id.* at 5:50–52; Pet 52 (“Kelly’s disclosure of storing a player’s prize credits won in previous games as well as the number of times the player has played a game teaches storing the

player's historical game performance data.”). Claim 16 recites that the personalized information is stored in a memory of the processing unit, but the updated personalized information is stored in a memory of the controller. *Id.* at 7:1–2; 7:8–9.

Kelly discloses that a player's “credit account” “can be implemented on storage devices such as memory, hard disk, etc. either *local to the individual game unit or on a connected server* that links multiple game units.” Ex. 1007, 24:7–11 (emphasis added). The credit account may include “previously won prize credits,” *i.e.*, historical game performance as well as “a player ID (name, address, ID number, etc.)” *Id.* at 21, 27–30. Thus, Kelly discloses that player data can be stored in memory on the handheld, or portable control, or on the processor or server of the system. Kelly does not, however specifically disclose where the age data is stored.

Petitioner recognizes that “Kelly does not specify where the player's age information is stored.” Pet. 53. Petitioner relies on Walker for the disclosure of “storing the user's age in a player account.” *Id.* According to Petitioner,

We didn't have express disclosure in Kelly that that age was being saved on the controller. We had a lot of player information being stored on that controller, but in Kelly there's no clear, express disclosure of age being sort of on the controller itself, and so we wanted to add in the Walker age from the database. . . . so we added the Walker teachings to say it could easily be – that's easily a field you could add with the other player information, which is already stored on Kelly's controller. Tr. 32:16–33:8.

Walker discloses that the “Player Information/Demographics” database includes the player's age, along with other personalized data, such

as name, address, opponents, billing systems, tournament information, and player history. Ex. 1007, 17:29–18:15.

According to Petitioner, “[i]t would have been obvious to a PHOSITA to store the player’s age with the player’s other account information, as taught by Walker.” Pet. 54 (citing Kitchen Declaration, Ex. 1010 ¶¶ 98–101). Essentially, Walker teaches storing all the personalized data together. Because Kelly teaches storing the player’s account information on the game unit, extending the basic teaching of Walker to Kelly, we agree with Petitioner that “it would have been obvious to also store the player’s age information [in Kelly] in the player account [in Kelly].” *Id.* (citing Ex. 1010 ¶ 100).

Patent Owner argues that Petitioner’s argument fails because it ignores “Walker’s critical disclosure of storing user age information in a ‘database’ ‘associated with or resid[ing] at the central controller.’” Pet. 18 (citing Ex. 2002, ¶ 66). Dr. Akl cites no objective evidence to support his opinion that Walker’s disclosure of storing age data on the server is “critical.” Ex. 2002, ¶ 66. Patent Owner’s argument and Dr. Akl’s testimony regarding criticality of storing age data on the central processing unit are refuted by Kelly, which discloses that a player’s account information can be stored on various storage devices either local to the individual game unit or on a connected server. Ex. 1007, 24:7–11. Walker merely stores personal data in a single database. Extending that same disclosure to Kelly, suggests that Kelly’s age data should be stored with Kelly’s other person data, which can be on the local game unit.

(5) *wireless transmitting of historical game data to the processor unit.*

Patent Owner also argues that Walker and Kelly do not disclose or suggest wireless transmission of historical game performance data to the processor unit. PO Resp. 20–23. Patent Owner does not cite the specific language in the challenged claims on which it relies for this requirement.

Claim 1 recites that the “personalized portable control” (*id.* at 5:45) includes “a transmitter for wireless transmitting of the personalized identification and game control signals to the processor unit.” *Id.* at 5:53–55. The “personalized identification” includes “historical game performance data.” *Id.* at 5:50–52. Thus, this clause recites that historical data is sent wirelessly *from* the control *to* the processor unit, which is the limitation Patent Owner argues is not disclosed in the cited references. We note that this clause also states that the “processor unit authorizes game execution based on the user age.” *Id.* at 5:55–56. Thus, while historical data is sent to the processor, the processor does *not* use historical data to authorize game execution.

Petitioner asserts that Kelly’s game unit 10 includes a wireless transmitter/receiver 24 that is “used to allow game unit 10 to communicate with an operator, server, or other central controller.” Pet. 55 (quoting Ex. 1008, 12:13–17). The complete disclosure in Kelly states that game unit 10 communicates with an operator, server, or other central controller “that regulates and coordinates prize distribution to game apparatuses linked to the controller.” Ex. 1008, 12:15–17. Petitioner concludes from this disclosure in Kelly that “Kelly teaches an embodiment where the server executes game applications and manages the tournaments. In this

embodiment, the game unit transmits ‘appropriate data’ to the server.”
Pet. 55. Petitioner also asserts that Kelly discloses that in some of Kelly’s disclosed embodiments, “a player can be required to play a predetermined number of games (e.g., 5) on a game unit 10 before being allowed to participate in a tournament.” *Id.* at 57 (quoting Ex. 1008, 22:42–53) (Petitioner’s emphasis deleted). Petitioner also quotes Kelly’s disclosure that “[t]he number of times the player has played [*i.e.* historical game data] can be stored with a player identification on a storage device or in memory or at a central database accessible by game apparatus 100.” *Id.*

Petitioner concludes from these disclosures in Kelly that “[i]t would have been obvious to a PHOSITA to transmit the player’s relevant account information to the server in the embodiment where the game unit stores the player’s account and the server executes the game application and manages the tournaments. *Id.* at 57–58 (citing Mr. Kitchen’s Declaration, Ex. 1010 ¶ 104).

Mr. Kitchen testifies that, in his opinion, “it would have been obvious to a person of ordinary skill in the art to enable Kelly’s game unit to transmit the user’s age and number of games played to the server executing the game and managing access to games and/or tournaments. Ex. 1010 ¶ 104.

Once a game is over, credits won from a current game are added to any previous credit balance from previous games and the new credit balance is stored in either local or game unit memory, or on a connected server. Ex. 1008, 23:65–24:11.

According to Patent Owner, “[n]owhere does Kelly disclose that the previously won prize credits are transmitted from the game unit to the server. PO Resp. 21 (citing Dr. Akl’s Declaration, Ex. 2002 ¶ 61). Patent

Owner asserts that “Petitioner appears to acknowledge this deficiency of Kelly through its reliance on the knowledge of a PHOSITA.” *Id.* (citing Pet., 57–58). Patent Owner concludes that “[t]o the extent Petitioner relies on the common knowledge or common sense to support a finding that it would have been obvious to one of ordinary skill to transmit the alleged historical game performance data to its server, Petitioner’s arguments are improper.” *Id.* We disagree.

Petitioner acknowledges that neither Walker nor Kelly individually discloses the claimed invention. The asserted grounds of unpatentability are based on Section 103 of 35 U.S.C. The essence of Section 103 is a determination of whether “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art.” 35 U.S.C. § 103(a). The knowledge and creativity of a person of ordinary skill are critical components of the obviousness analysis. So is common sense. As explained in *KSR*, “[c]ommon sense teaches, however, that familiar items may have obvious uses beyond their primary purposes, and in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle.” *KSR*, 550 U.S. 420. “Rigid preventative rules that deny factfinders recourse to common sense, however, are neither necessary under our case law nor consistent with it.” *Id.* at 421; *see also DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1367 (Fed. Cir. 2006) (“Our suggestion test is in actuality quite flexible and not

only permits, but *requires, consideration of common knowledge and common sense*”) (emphasis added).¹³

Here, the references provide a comprehensive disclosure of various embodiments of gaming systems. The references disclosed wired and wireless systems; CPUs and game controllers; various memories used on servers, controllers or elsewhere; transmitters and receivers for transmitting and receiving data between components of the disclosed systems; and specific use of user age and historical game data in either allowing or prohibiting a user to play a game. The level of skill is high — a degreed engineer with specific experience in gaming systems. Given these facts and the substantial evidence before us, we find nothing “improper” (PO Resp. 21) about relying on the skill, creativity, common knowledge, and common sense of a person of ordinary skill in determining patentability of the claimed invention. Indeed, this is exactly the analysis required.

(6) Motivation to Combine

In assessing obviousness, it is necessary to determine what a person of ordinary skill would glean from the disclosures of portability of the controller and age data storage location in Walker and why such a person would combine these disclosures with Kelly. *KSR*, 550 U.S. at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

¹³ In our Decision to Institute a trial, we noted that Petitioner adds the phrase “in further view of the Knowledge of a PHOSITA” to Petitioner’s Grounds 2 and 3. Dec. Inst. 4; *see also, e.g.*, Pet. 4. In the Decision to Institute, we stated then that this phrase is superfluous because “the knowledge, skill, and creativity of a person having ordinary skill in the art (“PHOSITA”) is a factor in every determination of patentability under § 103(a). Patent Owner has cited no persuasive authority to the contrary.

Regarding the portable controller, Petitioner asserts “[i]t would have been obvious to a PHOSITA to implement Kelly’s game unit on a handheld electronic device as taught by Walker. Pet. 49 (citing Ex. 1010 ¶¶ 95–96). Petitioner asserts a “PHOSITA would have understood that if Walker’s device could be implemented on a handheld electronic device, so too could Kelly’s, thereby improving similar devices in the same way.” *Id.* (citing Ex. 1010 ¶ 97). Mr. Kitchen testifies that Kelly’s game unit is similar to Walker’s I/O device in that they are both used by players to play games executed by a networked server/central controller. Ex. 1010 ¶ 97. Mr. Kitchen concludes that “a skilled artisan would have appreciated that if Walker’s game unit could be implemented on a handheld device, so too could Kelly’s, thereby improving similar devices in the same way.”

The references disclose all the claimed elements and limitations. As stated in *KSR*, “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” 550 U.S. at 416. This is the case here. Making Kelly’s input devices as portable units, as suggested by Walker, does no more than yield predictable results — portability of the controller or input/output device.

Regarding adding age to the personal data information stored in Kelly, Walker discloses obtaining personal information, including age. As discussed above, Kelly also collects age data, and uses age data to allow participation in a particular game. Ex. 1008, 42:63–43:5. Kelly does not disclose explicitly where the age data is stored. *See* Pet. 53 (“Kelly does not specify where the player’s age information is stored.”). Kelly does disclose, however, that there are various options for storing the personalized data, “either local to the individual game unit or on a connected server that links

multiple game units.” Ex. 1008, 24:7–11. Walker suggests storing age data with other personalized data. We are persuaded by a preponderance of the evidence that it would have been obvious to a person of ordinary skill and creativity modify Kelly, as suggested by Walker, and store age data along with the other personal data collected by the system.

Patent Owner argues that because of the “high cost involved in wireless transmission of data, one of ordinary skill in the art would not have been motivated to devote precious wireless resources to transmit historical performance data to the server, especially when such information is already available at the server.” PO Resp. 24 (citing Ex. 2002 ¶ 63).

Patent Owner argues that storing duplicate age information in Kelly’s game unit would only result in significant increasing of the memory cost, complexity, and price of the game unit, while not providing any benefit because the age information is already stored at the server. *Id.* at 20 (citing Ex. 2002 ¶ 67).

Dr. Akl testifies that in November 1997, the effective filing date of the ’818 patent, memory was “prohibitively expensive,” and it would have been important for a game unit manufacturer to avoid additional memory cost. Ex. 2002 ¶ 67. According to Dr. Akl, storing duplicate age information in Kelly’s game unit would only result in significantly increasing the memory cost, complexity, and price of the game unit, while not providing any benefit. *Id.* Dr. Akl reaches this conclusion because, according to Dr. Akl, Kelly’s age information “has already been stored at the server.” *Id.*¹⁴

¹⁴ *See*, however, Pet. 53 (“Kelly does not specify where the player’s age information is stored.”); PO Resp. 17 (“Petitioner admits Kelly does not

Dr. Akl provides no facts or data to support his opinion, and thus we give it little or no weight. 37 C.F.R. § 42.65(a). There are no facts, data, or other persuasive evidence to which we have been directed establishing that adding age information or historical data to a memory would have been “prohibitively expensive,” or would have significantly increase the memory cost, complexity, or price of a game unit. Indeed, the facts are to the contrary, based on the disclosure of the ’818 patent.

The ’818 patent discloses that the *controller* includes non-volatile memory device 134 used to store data corresponding to personal information regarding the user. Ex. 1001, 3:30–34. The ’818 patent also discloses that “[t]he *central processing unit* 122 can also contain a memory device 136 which stores data corresponding to the controllers.” *See also id.* at 3:66–4:19 (disclosing a specific embodiment where personalized data is stored in memory on the controller and duplicated in memory on the CPU). Thus, contrary to Patent Owner’s argument (PO Resp. 20, 24) and Dr. Akl’s testimony (Ex. 2002 ¶¶ 63, 67), and according to the ’818 disclosure, personal user information can be stored in both the controller and duplicated in the central processing unit without it being prohibitively expensive.

(7) Conclusion for Claims 1 and 16

Based on the evidence¹⁵, our analysis of the evidence, and our findings, all discussed above, we conclude that a preponderance of the

disclose storing the age of a user, either on its game unit 10 or server.”) (citing Pet., 53, 64).

¹⁵ The parties have neither submitted objective evidence of nonobvious, nor argued that it is a factor in this case.

evidence establishes that the inventions recited in claims 1 and 16 would have been obvious to a person of ordinary skill based on Walker and Kelly.

c) Claims 20, 21, 24, 31, and 32

The cited references, and most of the claim elements and limitations, in claims 20, 21, 24, 31, and 32 are common to those in claims 1 and 16.

For claims 20, 21, 24, 31, and 32, the parties have argued that player data is stored on the processor, rather than on the controller, as recited in claims 1 and 16. *See e.g.*, Tr. 5:11–26.

Claim 20 recites a game apparatus. A wireless transmitter transmits an “identification code” to a processor. Ex. 1001, 7:26–27. The processor uses this “identification code” to retrieve “identification data” and to authorize game play, based at least in part on an age of the player. *Id.* at 7:28–30. It is clear, however, that the “identification code” is different from the “identification data.” Ex. 1001, 3:52–58 (“The CPU then analyzes the identification code using control 138 and retrieves data stored in the CPU memory 136 which corresponds to the identification code. The CPU can, therefore, retrieve personalized information relating to the user of the identified controller.”).

Claim 20 does not identify what information is contained in the “identification data,” or whether the “age of a player” is part of the “identification data.” The phrase “identification data” does not appear in the written description of the ’818 patent. Its first use in the ’818 patent is in claim 20. The written description discloses that “data” “corresponding to personal information regarding the user of the controller” is obtained and stored in a memory. Ex. 1001, 3:32–39. We determine that “identification

data,” as used in claim 20, is personal information regarding the user of the apparatus.

Claim 20 also does not state where the “identification data” is stored. Both parties assume it is stored in the processor. *E.g., see* Tr. 5:11–13. Claim 20 also does not state where the processor is located. Both parties assume the processor is an element separate from the controller or transmitter and that the processor is “like a server or a central controller.” *Id.* at 5:17–20.

Claim 21 recites a method of playing an interactive game. Ex. 1001, 7:34–40. It is similar to claim 20, but does *not* include an “identification code.” It recites that “data” is transferred wirelessly from a controller to a processor. Authorization of game play is based at least in part on “the data” *and* “an age of the player.” Claim 21 does not recite what information is in “the data.” Claim 21 does *not* recite that “the data” includes the age of the player. Claim 21 does also does *not* recite how the recited method knows the age of the player.

Claim 24 recites a gaming system. Ex. 1001, 7:46–53. It is similar to claim 20 in what it recites, and what it does *not* recite, in that it recites an “identification code” that is used by the processor to authorize game play based on an age of a player. Claim 24 differs from claim 20, however, in that claim 24 uses the “identification code” to authorize game play, whereas claim 20 uses the “identification code” (1) to retrieve “identification data,” and (2) to authorize game play.

Claim 31 recites a method of *playing* a game. Ex. 1001, 8:35–41. It is similar to claim 21 in in what it recites, and what it does *not* recite, in that “data” is transferred wirelessly from a hand-held device to a processor.

Authorization of game play is based at least in part on “the data” *and* “an age of the player.”

Claim 32 recites a method of *operating* a game. Ex. 1001, 8:42–49. The parties have not directed us to any persuasive evidence establishing a substantive difference between *playing* a game, as recited in claim 31, and *operating* a game, as recited in claim 32. Claim 32 recites that the processor uses “the data” it receives “to determine an age of a game player.” Similar to the other claims in this group, claim 32 does *not* recite what information is included in “the data” or how the processor uses “the data” to “determine an age of a game player.”

For claims 20, 21, 24, 31, and 32, Petitioner relies primarily on Walker and proposes to modify Walker, based on Kelly. *E.g.*, see Tr. 8:20–9:8 (“So Walker certainly collects age data, but there's no express disclosure in Walker where that age data is actually authorizing the game play. And so we're using Kelly to show that -- using that Kelly data field to say that you could authorize . . . , authorize game play based on that age data in Kelly”).

Petitioner provides a clause-by-clause analysis of this group of claims, and concludes that they would have been obvious to a person of ordinary skill based on Walker and Kelly. Pet. 10–32.

Patent Owner acknowledges that “[w]hile not identical, claims 21, 24, 31, and 32 recite similar features” as those in claim 20. PO Resp. 25. In our analysis of the “authorize play based on age” clause, which is included in all the challenged claims, we noted minor differences in the words used in each challenged claim for this clause. We conclude, however, that these were distinctions without a substantive difference. The same holds true for other words or terms used in claims 20, 21, 24, 31, and 32. For example, claim 20

refers to “game control signals” (Ex. 1001, 7:27), whereas claim 24 refers to “game playing signals” (*id.* at 49–50). Patent Owner admitted that, “whatever those terms may mean” Patent Owner did not dispute that Kelly and/or Walker transmit from the wireless controller “game playing signals” or “game control signals.” Tr. 43:17–44:4. We discussed above that there is no persuasive evidence or argument to which we have been directed that establishes a substantive difference between “playing” a game, as recited in claim 31, and “operating” a game, as recited in claim 32. Accordingly, we focus our analysis on the substantive issues raised by the parties, and the applicable burden of proof on Petitioner.

For claims 20, 21, 24, 31, and 32, we adopt our findings and conclusions made in the context of claims 1 and 16. We address below Patent Owner’s arguments specific to claims 20, 21, 24, 31, and 32.

Petitioner acknowledges the differences between the challenged claims and the prior art. For example, Petitioner recognizes that Walker does not use the phrase “wireless transmitter,” as recited in claim 20. Petitioner asserts, however, that a “PHOSITA would have understood” that Walker’s I/O device would necessarily include a transmitter in order for the I/O device to communicate with the central controller over a wireless telecommunications network. Pet. 18 (citing Ex. 1010 ¶ 53). Petitioner also notes that Kelly discloses a wireless transmitter. *Id.* at 18–19 (citing Ex. 1008, 12:37–40). Petitioner concludes that “[i]t would have been obvious to a PHOSITA to include a wireless transmitter in Walker’s I/O device as taught by Kelly.” *Id.* at 19 (citing Ex. 1010 at ¶¶ 54–55). Patent Owner does not dispute this and similar proposed combinations of Walker and Kelly.

In general summary, Patent Owner argues that claims 20, 21, 24, 31, and 32 “are patentable” because the proposed combinations of Kelly and Walker:

do not disclose or render obvious (1) authorizing game execution based on the user age; (2) an identification code used by a processor executing a game to retrieve identification data and authorize game play; and (3) transmitting data from a hand-held device to a processor executing the game and authorizing play of the game based at least in part on the data.

PO Resp. 2. Patent Owner also argues that the Petition “provides legally insufficient reasons why or how one would have implemented Walker’s central controller to authorize game execution based at least in part on a player’s age.” *Id.* We address each issue below.

(1) Authorizing Game Execution Based on User Age

Patent Owner argues claims 20, 21, 24, 31, and 32 together on the “authorizing game execution based on user age” limitation. PO Resp. 26. Patent Owner repeats its argument, discussed above in the context of claims 1 and 16, that Kelly “does not disclose or suggest authorizing game play based on the player’s age because its sole reference to ‘age’ has nothing to do with authorizing game play.” *Id.* at 26 (citing Ex. 2002, ¶ 69). We discussed Patent Owner’s position in the context of our discussion of claims 1 and 16.

In both the “required conditions disclosure” (Ex. 1008 at 22:42–46) and the “age disclosure” (*Id.* at 42:63–43:5) in Kelly, meeting the established condition is a prerequisite to participation in a game or tournament. If a player satisfies the prerequisites, the player is authorized to play. If a player *does not* satisfy the prerequisites, the player is *not* authorized to play. Kelly discloses that authorization to play a game,

whether the game is part of a tournament or not, can be based on the age and/or other collected data of the player, such as historical game data.

Petitioner relies on the testimony of Mr. Kitchen for support of its proposed modification of Walker to authorize play based on the age of a player. Pet. 19–23 (citing Ex. 1010). Mr. Kitchen testifies that, in his opinion, “it would have been obvious to a person having ordinary skill in the art at the time of the RE’818 patent to modify Walker’s central controller to authorize gameplay based on the age of the player as taught by Kelly.” Ex. 1010 ¶ 58.

Mr. Kitchen explains that “a skilled artisan would have appreciated that modifying Walker’s central controller to perform an age verification as taught by Kelly would have been one of a finite number of ways to implement age restrictions on a networked game” and consistent with market demands. *Id.* at ¶¶ 58–60.

(2) Identification Code of Claims 20 and 24

Patent Owner’s “identification code” argument applies only to claims 20 and 24. PO Resp. 26 (“Walker and Kelly do not Disclose or Render Obvious the Claimed Identification Code of Claims 20 and 24”) (Section heading IV.B.2 (emphases deleted)). As discussed above, claims 20- and 24 recite that an “identification code” is sent by the wireless transmitter or controller to the processor. In claim 20, the identification code is used by the processor “to retrieve identification data *and* authorize game play based at least in part on an age of a player.” Ex. 1001, 7:28–30. In claim 24, the identification code is used by the processor to authorize game play based on age. *Id.* at 7:51–52.

The written description discloses that central processing unit 122 may contain memory device 136 that stores data corresponding to the data stored in the controller or hand-held I/O device. Ex. 1001, 3:49–51. In this embodiment, the controller does not need to send all the identification data to the processor because it already has this data. Instead, the controller can send an identification code from wireless controller 126 to central processing unit 122. *Id.* at 3:52–54. The identification code identifies the user of the controller. The CPU then analyzes the identification code and retrieves data stored in CPU memory 136 that corresponds to the identification code. *Id.* at 3:54–56. Thus, the CPU retrieves personalized information relating to the user of the identified controller. *Id.* at 3:57–58.

Petitioner asserts that Walker discloses using a player’s “unique identifier” to retrieve identification data and authorize game play. Pet. 19–20.

Walker’s I/O device transmits a player’s unique identifier to the central controller or server. Ex. 1007, 6:21–33; Fig. 3. The identifier can be the user’s name, social security number, account number, a password, or other personal identifier that uniquely identifies the player in the central controller. *Id.* at 6:27–30.

As disclosed in Walker, and illustrated in Figure 3 of Walker, the central controller uses a player’s identifier to retrieve the player’s account stored in a database. *Id.* at 6:34–36. The player’s account includes personal/demographic information, such as a player’s age and historic game data. *Id.* at 17:28–18:15.

Petitioner concedes that “Walker teaches storing the player’s age information in the player’s account, but is silent with regard to authorizing

game play based on the player's age." Pet. 21. Petitioner relies on Kelly for the disclosure of authorizing game play based on the age of the user. *Id.* Petitioner concludes it would have been obvious to "to modify Walker's central controller to implement an age requirement as taught by Kelly." *Id.* at 22 (citing Ex. 1010 ¶ 58).

Patent Owner does "*not dispute* that the references disclose an identification code." Tr. 43:7–15 (emphasis added). What Patent Owner disputes "is how the identification codes are used in the prior art references." *Id.*

Patent Owner argues that Walker's identifier is used to register players, not authorize game play. PO Resp. 28. According to Patent Owner, "registration of players is a separate process from authorization of game play." *Id.* (citing Ex. 2002 ¶ 75). Dr. Akl testifies and opines that "[a]uthorization of game play is a decision-making process, while registration of players only involves collection of information." Ex. 2002 ¶ 75. We disagree.

A player that is not registered in Walker is not allowed or authorized to participate in a game. As disclosed in Walker, after determining that a registered player "is eligible to play, the controller sends an acknowledgment message to the associated I/O device. When the tournament starts, the player is able to begin play." Ex. 1007, 6:62–65. Thus, if a player is identified using the identifier, the player's data is retrieved and checked to determine if the player is "eligible," or authorized, to play. If not eligible, the player not able to play the game. In Walker, the "unique identifier," or identification code, is what triggers eligibility, or authorization to play. Eligibility is determined after the identification data,

or personal player information, based on the identifier is retrieved and reviewed. *Id.* (“After determining that the player is eligible to play, the controller sends an acknowledgment message to the associated I/O device. When the tournament starts, the player is able to begin play.”). Thus, registration is part of, and a prerequisite to, authorization. It is the registration data that determines whether a player is, or is not, authorized to play. This is all that is required by the claims — an identification code that retrieves identification (*i.e.*, registration) data and authorizes play.

The only element missing from Walker is a specific use of age to determine eligibility. This missing element is found in Kelly. As we have explained above, it would have been obvious to combine these disclosures to base eligibility on age.

(3) *Transmitting Data in Claims 21 and 31*

Claim 21 recites a method of playing an interactive game. Ex. 1001, 7:34–40. Claim 21 includes the method step of “transmitting data from a controller using wireless transmissions to a processor executing the interactive game.” *Id.* at 7:35–36. Claim 21 also recites the step of “authorizing play of the interactive game based at least in part on the data *and* an age of the player.” *Id.* at 7:37–38 (emphasis added). There is no antecedent in claim 21 for the recited limitation “age of the player.” We don’t know where it comes from or how the claimed invention knows the age of the player. As discussed above, claim 21 does not state that “age data” is obtained as part the “data” transmitted to the processor. The written description does not define “data” to require that the “data” include the age of the player. Age data is not disclosed as critical data. *See* Ex. 1001, Abstract (“The personalized information can include, for example, the user’s

name, skill level, preferred characters, handicaps, limitations, and/or historical game scores.”); *id.* at 5:13–21 (“The information can include, for example, the user’s name, skill level, preferred characters, handicaps, limitations, and/or historical game scores.”).

Claim 31 is similar to claim 21. It recites a method of operating a game. *Id.* at 8:34–41. Claim 31 includes the method step of “transmitting data from a hand-held device using wireless transmissions to a processor executing the game.” *Id.* at 8:35–36. Similar to claim 21, claim 31 also recites the step of “authorizing play of the game based at least in part on the data *and* an age of a game player.” Ex. 1001, 8:37–38 (emphasis added).

Patent Owner acknowledges that the age of the game player need not be within the data (Tr. 62:7–11) and that “[i]n claims 21 and 31, the age could come from anywhere” (*id.* at 62:12–19).

We review claims 21 and 31 based on the recited limitation that authorization is based on two factors — (1) “the data,” and (2) “an age of the player.”

Patent Owner asserts that Walker and Kelly “fail to disclose or render obvious the claimed data transmitting features of claims 21 and 31.” PO Resp. 29.

Petitioner asserts that Walker teaches that the I/O device transmits the player’s unique identifier (i.e., “identification code”) to the central controller or processor “using wireless transmissions.” Pet. 26 (citing Ex. 1007, 5:19–23). Petitioner also notes that Kelly discloses that its communication device 24 can be a wireless transmitter/receiver. *Id.* (citing Ex. 1008, 12:37–40). We agree with Petitioner’s characterizations of the cited references as

disclosing the step of transmitting data from a hand-held device using wireless transmissions to a processor executing the game.

Petitioner also asserts that Walker teaches using the player's unique identifier (i.e., "the data") to retrieve the player's account and authorize game play. Pet. 26. Walker's I/O device transmits the player's unique identifier to the central controller. Ex. 1007, 6:24–33. The central controller, or processor, then uses the player's identifier to retrieve the player's account stored in a database. *Id.* at 6:34–37. The player's account includes demographic information such as the player's age. *Id.* at 17:28–44. If the player is registered and has paid the required entry fees, the player is authorized to play. *Id.* at 6:36–65.

Petitioner also asserts that Walker teaches storing the player's age information in the player's account, but is silent with regard to authorizing game play based on the player's age. *Id.* at 17:28–44. Petitioner argues again that Kelly teaches a similar networked game system authorizing gameplay based on the age of the player. Pet. 27.

Patent Owner argues that the central controller processor of Walker does not authorize play of the game based "on the data." PO Resp. 30 (citing Ex. 2002 ¶ 79). It is Patent Owner's position that Walker's "transmission of data of [a] player's account information (including age), has everything to do with registration of the player—and nothing to do with authorizing game play." *Id.* at 30–31 (citing Ex. 2002 ¶ 80). Dr. Akl's cited testimony merely repeats Patent Owner's argument.

As discussed above, Walker discloses that if it is determined that the player is eligible to play, the *controller* in Walker sends an acknowledgment message to the associated I/O device, thus allowing the player to play the

game. Ex. 1007, 6:62–65. It is the central controller that determines eligibility to participate in the game. *Id.* at 6:52–56. The central controller receives and updates the player’s record in the database. *Id.* at 6:52–54. This update may reflect, for example, that payment has been made. *Id.* The central control then determines whether the player “is eligible to participate in the tournament.” *Id.* at 6:55–56. “After determining that the player is eligible to play, the *controller* sends an acknowledgment message to the associated I/O device,” which allows play. *Id.* at 6:62–65. Thus, contrary to Patent Owner’s argument, it is Walker’s controller that determines eligibility and authorizes play based on updated information in the player’s record or database.

(4) *Motivation to Combine*

Patent Owner argues that Petitioner “provides legally insufficient reasons why or how a PHOSITA would implement Walker’s central controller with the claimed age requirement.” PO Resp. 31. Patent Owner also argues that Petitioner’s “general assertions obscure the scope and content of the prior art on which it relies for its challenge.” *Id.* at 35.

As discussed above, Walker and Kelly disclose all the recited elements and steps recited in the challenged claims. Whether a patent claiming the combination of prior art elements would have been obvious is determined by whether the improvement is more than the predictable use of prior art elements according to their established functions. *KSR*, 550 U.S. at 417. To reach this conclusion, however, it is not enough to show merely that the prior art includes separate references covering each separate limitation in a challenged claim. *Unigene Labs.*, 655 F.3d at 1360. Rather, obviousness additionally requires that a person of ordinary skill at the time

of the invention “would have selected and combined those prior art elements in the normal course of research and development to yield the claimed invention.” *Id.*; *see also Orexo*, No. 2017-1333, 2018 WL 4288961, at *7.

Petitioner asserts that at the filing date of the ’818 patent, there were two known models for implementing age restrictions on networked games. Pet. 22 (citing Ex. 1010 ¶¶ 39–47, 59). These were direct parental supervision or game provider enforced age restrictions. *Id.* Petitioner concludes that “[g]iven the market demands of the time, a PHOSITA would have been motivated to implement some form of age restriction for networked games deemed inappropriate for children. *Id.* (citing Ex. 1010 ¶ 60).

After summarizing the background of the relevant technology and the prior art, Mr. Kitchen opines that “a skilled artisan would have appreciated that modifying Walker’s central controller to perform an age verification as taught by Kelly, would have been one of a finite number of ways to implement age restrictions on a networked game.” Ex. 1010 ¶ 59. Mr. Kitchen further opines that “given the social and political climate surrounding children being exposed to inappropriate content online” at the relevant time, “a person of ordinary skill would have been motivated to implement an age restriction such as that taught by Kelly in Walker’s gaming network.” *Id.* at ¶ 60.

Contrary to Patent Owner’s argument, we find nothing “legally insufficient” (PO Resp. 31) about Petitioner’s argument or evidence. The Petition discussed the scope and content of the prior art (*e.g.* Pet. 11–13) and further discussed the prior art in detailed discussions of each clause of the challenged claims (*e.g., id.* at 14). The Petition also acknowledged

differences between the claimed subject matter and the prior art. *E.g.*, *id.* at 21 (“Walker teaches storing the player’s age information in the player’s account, but is silent with regard to authorizing game play based on the player’s age.”). Petitioner also discusses the level of ordinary skill in the art. *Id.* at 10).

We also are not persuaded that the Petition fails to meet the statutory and regulatory requirements that petitions identify with particularity each claim challenged, the grounds on which the challenge to each claim is based, and the evidence that supports the grounds for the challenge to each claim. PO Resp. 36 (citing 37 C.F.R § 42.104(b)(2)). The Petition’s clause-by-clause analysis of each challenged claim, and citation to the specific portions of the prior art that disclosed the recited element or limitation fully complied with the applicable statutory and regulatory requirements.

(5) Conclusion for Claims 20, 21, 24, 31, and 32

Based on the evidence, our analysis of the evidence, and our findings, all discussed above, we conclude that a preponderance of the evidence establishes that the inventions recited in claims 20, 21, 24, 31, and 32 would have been obvious based on Walker and Kelly.

2. Claim 25 Based on Walker, Kelly, and Viescas

Petitioner asserts that claim 25 would have been obvious based on Walker, Kelly, and Viescas. *E.g.*, Pet. 5.

Patent Owner argues that Viescas is not a printed publication, and thus does not qualify as a reference under 35 U.S.C. § 102. PO Resp. 47–52. Patent Owner also moves to exclude Viescas (Ex. 1009) and related exhibits (Declaration of Jacob Munford, (Ex. 1026) and Letter from the British Library (Ex. 1027)) from this case. Before addressing the merits of the

patentability of claim 25 based on Walker, Kelly, and Viescas, we first consider the Motion to Exclude and whether Viescas is a printed publication and admissible as evidence in this case.

a) Motion to Exclude

Patent Owner moves to exclude three exhibits in this proceeding, Exhibit 1009, the Viescas reference; Exhibit 1026, the Declaration of Jacob Munford; and Exhibit 1027, a Letter from the British Library. Mot. Excl. 1.

Patent Owner moves to exclude Exhibit 1009, the Viescas reference, under Fed. R. Evid. 401, 402, 403, 801, 802, 805, and 901. Mot. Excl. 1–4. According to Patent Owner, the Viescas reference is unauthenticated, irrelevant, prejudicial, confusing, a waste of time, and irrelevant. *Id.*

Patent Owner also moves to exclude Exhibit 1026, the Munford Declaration, under Fed. R. Evid. 401, 402, and 403 as irrelevant, prejudicial, confusing, and/or a waste of time. Mot. Excl. 4–5.

Additionally, Patent Owner moves to exclude Exhibit 1027 under Fed. R. Evid. 401, 402, 403, 801, 802, and 805 as irrelevant, prejudicial, confusing, and/or a waste of time, and as hearsay. Mot. Excl. 5–6.

We agree with Patent Owner that Exhibits 1026 and 1027 have some deficiencies, which we discuss in the following sections of this Decision in our substantive discussion of these exhibits. The Board, however, acts as both the gatekeeper of evidence and as the weigher of evidence. Rather than excluding evidence that is allegedly confusing, misleading, untimely, and/or irrelevant, we will simply not rely on it or give it little or no probative weight, as appropriate, in our analysis. Similar to a district court in a bench trial, the Board, sitting as a non-jury tribunal with administrative expertise, is well positioned to determine and assign appropriate weight to evidence

presented, including giving it no weight. *See, e.g., Donnelly Garment Co. v. NLRB*, 123 F.2d 215, 224 (8th Cir. 1941) (“One who is capable of ruling accurately upon the admissibility of evidence is equally capable of sifting it accurately after it has been received . . .”).

Thus, in this *inter partes* review, the better course is to have a complete record of the evidence to facilitate public access as well as appellate review. Accordingly, we deny Patent Owner’s Motion to Exclude Evidence.

b) Printed Publication

Viescas is a book. It is titled “The Official Guide to the Prodigy Service.” The entire book is more than 350 pages. Exhibit 1009 is an excerpt from this book.

Patent Owner argues that there is no evidence that Viescas is a printed publication available as a reference under 35 U.S.C. § 102. PO Resp. 47–52. According to Patent Owner, there is no “evidence that Viescas was publicly available prior to November 14, 1997, the priority date of the RE’818 patent.” *Id.* at 47.

Under 35 U.S.C. § 102, a person is entitled to a patent unless the invention was “patented or described in a printed publication in this or a foreign country” either “before the invention” by the patent applicant, or “more than one year prior to the date of the application for patent in the United States.” 35 U.S.C. §§ 102(a), (b). Whether a document qualifies as a printed publication under § 102 is a legal conclusion based on underlying factual determinations. *Medtronic, Inc. v. Barry*, 891 F.3d 1368, 1380 (Fed. Cir. 2018) (citation omitted); *SRI Int’l, Inc. v. Internet Sec. Sys., Inc.*, 511 F.3d 1186, 1192 (Fed. Cir. 2008) (citation omitted). “Public accessibility”

has been called the touchstone in determining whether a reference constitutes a printed publication bar under 35 U.S.C. § 102. *SRI*, at 1194.

A reference is publicly accessible upon a satisfactory showing that it has been disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art exercising reasonable diligence, can locate it. *Blue Calypso, LLC v. Groupon, Inc.*, 815 F.3d 1331, 1348 (Fed. Cir. 2016) (quoting *Kyocera Wireless Corp. v. Int’l Trade Comm’n*, 545 F.3d 1340, 1350 (Fed. Cir. 2008)); *see also In re Cronyn*, 890 F.2d 1158, 1160 (Fed. Cir. 1989) (“The statutory phrase ‘printed publication’ has been interpreted to mean that before the critical date the reference must have been sufficiently accessible to the public interested in the art; dissemination and public accessibility are the keys to the legal determination whether a prior art reference was ‘published.’”) (quoting *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1568 (Fed. Cir. 1988)). *See also Gopro, Inc. v. Contour IP Holding LLC*, 898 F.3d 1170, 1176 (Fed. Cir. 2018) (holding the standard for public accessibility is one of “reasonable diligence” to locate the information by “interested members of the *relevant* public.”) (citations omitted). “If accessibility is proved, there is no requirement to show that particular members of the public actually received the information.” *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d at 1569.

Petitioner bears the burden of establishing that a particular document is a printed publication. *Medtronic. v. Barry*, 891 F.3d at 1380 (citing *Blue Calypso*, 815 F.3d at 1350–51 (holding that petitioner failed to carry its burden of proving public accessibility of the allegedly invalidating reference). *See also In re Wyer*, 655 F.2d 221, 227 (CCPA 1981)

("[W]hether information is printed, handwritten, or on microfilm or a magnetic disc or tape, etc., *the one who wishes to characterize the information, in whatever form it may be, as a 'printed publication'* . . . should produce sufficient proof of its dissemination or that it has otherwise been available and accessible to persons concerned with the art to which the document relates and thus most likely to avail themselves of its contents." (emphasis added)).

In *In re Klopfenstein*, 380 F.3d 1345 (Fed. Cir. 2004), the Federal Circuit rejected an argument that "distribution and/or indexing" are the key components to a "printed publication" inquiry because that argument "fails to properly reflect what [Federal Circuit] precedent stands for," explaining that "printed publication" means reasonably accessible through generally available media that serve to disseminate information. *Id.* at 1348. A printed publication need not be easily searchable after publication if it was sufficiently disseminated at the time of its publication. *Suffolk Technologies, LLC v. AOL Inc.*, 752 F.3d 1358, 1364 (Fed. Cir. 2014).¹⁶

The determination of whether a reference is a "printed publication" under 35 U.S.C. § 102(b) involves a case-by-case inquiry into the facts and circumstances surrounding the reference's disclosure to members of the public. *Klopfenstein*, 380 F.2d at 1350.

Against this general background, we consider the evidence and arguments on which the parties rely.

¹⁶ As explained in *Klopfenstein*, the word "disseminate" is not used in its literal sense, *i.e.*,] "make widespread" or "to foster general knowledge of" and does not require distribution of reproductions or photocopies. 380 F.2d. at 1352, n. 3.

First, we look at the Viescas reference itself. Next, we review the supplemental evidence submitted by Petitioner to prove that Viescas was publically available. Finally, we determine whether Viescas is available as a reference against the '818 patent.

(1) *The Viescas Reference (Ex. 1009)*

Viescas is a book indicating that it was published by Microsoft Press. Ex. 1009, 2. Viescas contains the following publication and copyright information:

“PUBLISHED BY Microsoft Press”
“Copyright © 1991 by John L. Viescas.”

Id. The book also identifies Microsoft Press as a division of Microsoft Corporation. *Id.*

Patent Owner argues that “a mere” copyright notice is not evidence sufficient to establish that Viescas is a printed publication. PO Resp. 49. Patent Owner also argues that a copyright notice does not establish that Viescas was publically accessible prior to the priority date of the '818 patent, which is November 14, 1997. We agree with Patent Owner.

A copyright notice informs the public that copyright protection is claimed, identifies the copyright owner, and states the asserted year of first publication. 17 U.S.C. § 401(b). The purpose of a copyright notice is, simply, to put a reader on notice that a claim has been made that the work is copyrighted. Copyright law states the purpose of the notice, which is to eliminate the defense of innocent infringement. *Id.* at § 401(d) (“If a notice of copyright in the form and position specified by this section appears on the published copy or copies to which a defendant in a copyright infringement suit had access, then no weight shall be given to such a defendant’s

interposition of a defense based on innocent infringement in mitigation of actual or statutory damages, except as provided in the last sentence of section 504(c)(2)").

A copyright notice, without additional evidence, is *not* sufficient to establish that a document was sufficiently accessible to the public interested in the relevant technology before the critical date, and thus is a printed publication under patent law. *See In re Lister*, 583 F.3d 1307, 1311–17 (Fed. Cir. 2009) (holding that an unpublished manuscript that was registered with the Copyright Office, and available for inspection by visitors to that office, was not a “printed publication” for purposes of section 102(b)).

In our Decision to Institute a Trial, we found that there was more evidence than a mere copyright notice. Dec. Inst. 15. As reproduced above, Viescas included a statement that it was “published” by Microsoft Press. Ex. 1009, 2. Additionally, there is a statement prohibiting reproduction “without written permission of the publisher.” *Id.* (“No part of the contents of this book may be reproduced or transmitted in any form or by any means without the written permission of the publisher”). *See Veeam Software Corp. v. Symantec Corp.*, Case IPR2013-00142 (PTAB Aug. 7, 2013) (Paper 11, p. 11–12) (prohibition against unauthorized copying suggests the document was publicly available, as there would be no need for such a warning if the document were not disseminated). Viescas also identified distributors that distributed the book in the U.S., Canada, and in other countries. Ex. 1009, 2. Given the copyright notice *and* substantial indicia of

publication,¹⁷ we determined that Viescas was a printed publication for the purpose of satisfying the reasonable likelihood standard of proof required to institute a trial. Dec. Inst. 15; *see* 35 U.S.C. § 314(a). We also noted that Patent Owner would have an opportunity under 37 C.F.R. § 42.64(b) to further pursue this issue at trial. Dec. Inst. 15.

Following institution of trial, Patent Owner filed objections to several exhibits submitted with the Petition, including Viescas, Exhibit 1009. Paper 16; *see* 37 C.F.R. § 42.64(b)(1). Petitioner responded to Patent Owner's objections by *servicing* supplemental evidence on Patent Owner. Paper 20; *see* 37 C.F.R. § 42.64(b)(2). The supplemental evidence included a Declaration of Jacob Munford (Ex. 1026) and a letter from the British Library (Ex. 1027) regarding the public availability of Viescas.

Patent Owner filed a second notice of objections when Exhibits 1026 and 1027 were *filed* in this case. Paper 26. Patent Owner also filed a Motion to Exclude Viescas (Ex. 1009), the Declaration of Jacob Munford (Ex. 1026), and the letter from the British Library (Ex. 1027), discussed above. Paper 30.

(2) Declaration of Jacob Munford (Ex. 1026)

Mr. Munford earned a Master of Library and Information Science (MLIS) from the University of Wisconsin-Milwaukee in 2009. Ex. 1026 ¶ 1.¹⁸ He has over ten years of experience in the library/information science

¹⁷ Viescas also included additional indicia of publication, including “Library of Congress Cataloging-in-Publication Data” and a statement that “British Cataloging-in-Publication Data available.”

¹⁸ When citing to the testimonial portion of Mr. Munford's Declaration, we cite to the numbered paragraphs of his Declaration, rather than the page

field. *Id.*; *see also id.* Appendix A (containing Mr. Munford's Curriculum Vitae). He is an experienced specialist in processes and procedures used by libraries in acquiring and cataloguing library material for public availability. *Id.* ¶¶ 3, 4. Mr. Munford has been responsible for purchasing library materials, recording publishing data from the materials, creating library records, and preparing the materials for circulation. *Id.* ¶ 2. Mr. Munford also has experience in preparing library materials for public availability. *Id.* ¶ 4.

Based on his knowledge, skill, experience, training, and education, we determine that Mr. Munford is qualified, as an expert, to testify in the form of an opinion in this proceeding. Fed. R. Evid. 702; 37 C.F.R. § 42.62(a) (“... the Federal Rules of Evidence shall apply to a proceeding.”).

We note that this issue of whether Viescas is a printed publication available as a reference in this case does *not* involve a battle of experts, each opining differently. Patent Owner did not file an expert declaration with testimony reaching a different opinion than that stated by Mr. Munford. Patent Owner also did not depose Mr. Munford. This is not to shift any burden of proof on this issue to Patent Owner. Petitioner has the burden to prove that Viescas is available as a reference in this case. *E.g., Medtronic. v. Barry*, 891 F.3d at 1380. In addition, Petitioner had the burden of production. We determine that Petitioner met both burdens. We note this only in the context of weighing the evidence, as we do below. The evidence in this record comes only from the Viescas reference itself, from Mr.

number, to provide a more precise citation. When citing to the exhibits attached to his Declaration, we cite to the page number of the exhibit.

Munford’s Declaration, and from the British Library. We discuss this evidence below.

***University of Illinois-Springfield
Library System “Date Due” Stamp***

Mr. Munford testifies that he obtained a physical copy of Viescas from the University of Illinois-Springfield library system. *Id.* ¶ 6. Appendix VI01 to his Declaration includes copies of cover, title, “library date stamp,” and publication pages as well as selected excerpts from the physical copy he obtained. *Id.*; *see id.*, 33–121. By comparing this physical copy with Exhibit 1009, Mr. Munford concludes that Exhibit 1009 is a true and correct copy of “The Official Guide to the Prodigy Service.” Ex. 1026 ¶ 6. We determine that this comparison by Mr. Munford is sufficient to authenticate Ex. 1009 and is evidence sufficient to support a finding that the Ex. 1009 is what the Petitioner in this proceeding claims it is — an excerpt from the book “The Official Guide to the Prodigy Service.”

Mr. Munford refers to a “date stamp visible on the inside back cover of Appendix VI01.” *Id.* He does not cite to a specific page of Appendix VI01, which begins on page 33 of Ex. 1026 and extends to page 121. Mr. Munford testifies that the “date stamp” “indicates that Exhibit 1009 was publically available as of April 15, 1992.” Ex. 1026 ¶ 6. The only page of his Declaration that contains a date stamp with the date “April 15, 1992” is Exhibit 1026, page 42. A copy of this page is reproduced below.

<i>Super</i>	DATE DUE		<i>le Users</i>
GETTING STAR <i>Carl Townsend</i>	APR 15 1992		HELL
If you're a new compu this is the book for you	MAY 08 1992		MS-DOS version 5,
on the features of the ei			cs. The book focuses
DOS commands and pr			ces hard-to-remember
Includes dozens of tips	OCT 31 1992		keyboard or a mouse.
196 pages, softcover \$			
RUNNING MICRO <i>PC Edition</i>	APR 01 1992		

“Date Due” stamp from Viescas in Exhibit 1026, page 42.

Ex. 1026, 42.¹⁹ Because the heading printed on this stamp states “Date Due,” we refer to it as a “Date Due” stamp.

Mr. Munford testifies that in preparing library materials for public availability, the materials typically would include “a date slip that would be stamped with the due date upon lending.” *Id.* ¶ 4. Mr. Munford further testifies that “this slip is only stamped when the item is being circulated to the public and only after the library in question spent time developing a material record.” *Id.* Mr. Munford also testifies “it is [his] experience that an item's date slip accurately indicates the date of an item's public availability.” *Id.*

The heading “Date Due,” and the listing of various dates, suggests, as Mr. Munford testifies (*id.* ¶ 4) that the “Date Due” information indicates the dates the book was due to be returned to the library after being “circulated to the public” or checked out by a library patron. Thus, the date “April 15,

¹⁹ Citations to the appendices to Mr. Munford’s Declaration are identified by page number of Exhibit 1026.

1992” (Exhibit 1026, page 42) would indicate that the book was accessible to, and used by, the public at least by April 15, 1992. Based on the “Date Due stamp, Mr. Munford concludes that that the copy of Viescas he personally reviewed was “publically available as of April 15, 1992.” Ex. 1026 ¶ 6 (citing Ex. 1026, 42).

An expert, such as Mr. Munford, may base an opinion on facts or data that the expert has been made aware of or personally observed, even if the facts or data are not admissible. Fed. R. Evid. 703. This is the case with the “Due Date” stamp. We determine that this testimony is probative.

We also recognize that neither Mr. Munford nor Petitioner provide any evidence, other than the date stamp, establishing when the book had been indexed, cataloged and shelved in the University of Illinois-Springfield library system.,

Indexing is a relevant factor in determining accessibility of potential prior art, particularly library-based references. *See, e.g., In re Hall*, 781 F.2d 897 (Fed. Cir. 1986) (holding that a dissertation indexed in a university library catalog was a publicly accessible printed publication); *In re Bayer*, 568 F.2d 1357 (CCPA 1978) (holding that a thesis housed, but neither shelved nor catalogued, within a university library was not publicly accessible). But indexing is not “a necessary condition for a reference to be publicly accessible”; it is but one among many factors that may bear on public accessibility. *Voter Verified, Inc. v. Premier Election Sols., Inc.*, 698 F.3d 1374, 1380 (Fed. Cir. 2012) (citing *In re Lister*, 583 F.3d at 1312).

Based on the evidence and the analysis above, we determine that the “Date Due” stamp, and Mr. Munford’s testimony concerning the “Date Due”

stamp, are probative evidence that the Illinois library copy of Viescas was publicly accessible at least by April 15, 1992.

The “MARC Record”

Mr. Munford testifies that he also obtained a “MARC record” of Viescas from the Library of Congress library system. *Id.* ¶ 7. A copy of this MARC record is included at Appendix VI02 of his Declaration (Ex. 1026, 123–124).

Mr. Munford further testifies that he is fully familiar with the catalog record creation process in the library industry. *Id.* ¶ 3. He also testifies that in preparing material for public availability, a library catalog record describing that material would be created. *Id.* According to Mr. Munford, these records are “typically written in Machine Readable Catalog (MARC) code” and contain “information such as a physical description of the material, information from the material's publisher and date of library acquisition.” *Id.* Mr. Munford testifies that “it is my experience that an item’s MARC record accurately indicates the date of an item’s public availability.”

Concerning the specific MARC record he obtained for Viescas (*see id.* ¶ 7; Appendix VI02, *id.* at 123). Mr. Munford testifies that the “008 field of the MARC record . . . indicates that Exhibit 1009 was publically available as of May 30, 1991.” *Id.* ¶ 7.

Excerpts from the MARC record that Mr. Munford reviewed are reproduced below.

LC Online Catalog - Item Information (MARC Tags)



Excerpt from MARC record, Ex. 1026, 123.

The MARC record thus is “Online Catalogue” information from the Library of Congress.

The MARC information is for:

BOOK

The official guide to the Prodigy service

Excerpt from MARC record, Ex. 1026, 123.

The “Full Record” is provided. *Id.* The left column includes a series of 3-digit numbers, starting with “000” and ending with “991.” *Id.* Item 245 states “The official guide to the Prodigy service” and “John L. Viescas.” *Id.* Item 260 states “Redmond, Wash.,” “Microsoft Press,” and “c1991.” *Id.* This information is consistent with the information identified above for the Viescas reference (*see* Ex. 1009, 2).

The “008 field” is reproduced below.

008 910530s1991 waua 001 0 eng

Excerpt from MARC record, Ex. 1026, 123.

Mr. Munford testifies that the “008 field of the MARC record . . . indicates that Exhibit 1009 was publically available as of May 30, 1991.” *Id.* ¶ 7. The numbers themselves, without more, do not establish that Viescas was reasonably accessible through generally available media that serve to disseminate information. *See, e.g., Blue Calypso*, 815 F.3d at 1348. However, we credit Mr. Munford’s testimony as an expert in library science

that “[t]he 008 filed of the MARC record . . . indicates that Exhibit 1009 was publicly available as of May 30, 1991. Ex. 1026 ¶ 7.

(3) *British Library Letter (Ex. 1027)*

Exhibit 1027 is a “Public Availability Date Request” form and a letter dated November 9, 2017, from “Ms S Rampersad” to “Terry Stokke” responding to the request. Ex. 1027, 1, 2. There is no evidence in the record to which we have been directed that identifies who Terry Stokke is, or the relationship of Terry Stokke to this proceeding. Terry Stokke did not submit any testimony in this proceeding.

The entirety of the Public Availability Date Request” form is reproduced below.



PUBLIC AVAILABILITY DATE REQUEST

Customer name	Terry Stokke
Organisation	E.L.F. Research Services LLC
Our reference	170183A
Customer reference	6042hp
Price	£90.00
Item	John L. Viescas, <i>The Official Guide to the Prodigy Service</i> , Microsoft Press (1991) Shelfmark(s): General Reference Collection YK.1992.b.1058

Public Availability Date Request for Viescas. Ex. 1027, 1.

As shown, the form is requesting the public availability date of Viescas. The response to this request is the letter included with Exhibit 1027.

The entirety of the letter is reproduced below.



Terry Stokke
E.L.F. Research Services LLC
1360 University Ave. W.
Suite 166
St. Paul, MN 55104
USA

9th November 2017

Dear Mr Stokke

**"Title - John L. Viescas, The Official Guide to the Prodigy Service,
Microsoft Press (1991) Shelfmark(s): General Reference Collection
YK.1992.b.1058."**

According to our records, this item was received by The British Library on 23rd December 1991 and would have been available for public use from that date.

A scan of the cover pages showing the date stamp on page one indicating the date of availability has been attached, together with the table of contents.

Please note that we can only provide the date that the British Library made this item available for public use; for the actual date of publication, please contact the publisher.

Yours sincerely

Ms S Rampersad

Letter stating public availability date for Viescas. Ex. 1027, 2.

The letter is not signed. *Id.* The first paragraph states: "According to our records, this item was received by The British Library on 23rd December 1991 and would have been available for public use from that date." *Id.* A date stamp, shown below, is the basis for the date stated in the letter.



British Library stamp. Ex. 1027, 4.²⁰

The stamp includes the following numbers, “23,” and “91.” *Id.* It also includes the following letters, “DEC.” *Id.* These letters and numbers are consistent with the statement that Viescas was “received by” the British Library system on December 23, 1991, as stated in the letter. *Id.* at 2. This date stamp, however, does not establish when Viescas was indexed, cataloged and shelved in the library, or when Viescas was reasonably accessible from the British Library. It seems unlikely that the British Library would be able to index, catalog, and shelve all materials it receives on the day they are received. We have only the conclusory statement from the library that Viescas was available to the public from the British Library on December 23, 1991. This unsigned conclusory statement has no probative weight that, for purposes of patent law, Viescas was publicly accessible, and thus a printed publication, on December 23, 1991.

²⁰ This stamp has been enlarged from the original document to illustrate more clearly the numbers and letters shown on the stamp.

(4) Consideration of Supplemental Evidence

Patent Owner argues that the supplemental evidence in this case, including Mr. Munford's Declaration and the British Library letter, "should not be given any weight because it was not filed with the petition, and it would be improper to raise new matter in a reply." PO Resp. 50. We disagree. The supplemental evidence was filed in accordance with our procedures for resolving issues concerning the admissibility of evidence.

Petitioner believed Viescas was a printed publication under patent law when the Petition was filed. In its Preliminary Response, Patent Owner challenged whether Viescas was publicly available prior to November 14, 1997, the priority date of the '818 patent. Prelim. Resp. 4. Patent Owner also argued that the asserted deficiency in Viescas "cannot be remedied." *Id.* at 7.

In our Decision to Institute, we stated that, based on the Viescas document as filed, and relying on the copyright notice and other indicia of publication, we considered Viescas as a printed publication for the purpose of the Decision to Institute. Dec. Inst. 15.

It was clear, however, that there was a dispute concerning the admissibility of Viescas. This dispute did not preclude instituting an IPR proceeding, as we explained in our Decision to Institute. Contrary to Patent Owner's argument, our procedures establish a three-step process to resolve this dispute.

The Office Patent Trial Practice Guide contains the following guidance on challenging admissibility: "A party wishing to challenge the admissibility of evidence must object timely to the evidence at the point it is offered and then preserve the objection by filing a motion to exclude the

evidence.” Office Patent Trial Practice Guide, 77 Fed. Reg. at 49767 (col. 3) (Aug. 14, 2012). See *Flir Systems, Inc. v. Leak Surveys, Inc.*, IPR2014-00411, Paper 113 at 3–4 (PTAB Sept. 3, 2015).

First, there is an objection to the evidence, under § 42.64(b)(1). Second, supplemental evidence is *served* pursuant to § 42.64(b)(2), but does not become part of the record. The supplemental evidence is *filed* only if it is relied on in another authorized paper, such as in the Petitioner’s Reply, as was done here. Third, if the dispute is not resolved, a motion to exclude the *filed* evidence is submitted under § 42.64(c).²¹ The Board then decides the motion to exclude, as we do here.

We pointed out the available procedure for the parties to resolve this dispute during trial. Dec. Inst. 15 (citing 37 C.F.R. § 42.64(b)). The parties followed that procedure, as summarized above. Those procedures were established to allow the parties to efficiently resolve evidentiary issues, or, if not resolved, to develop a more complete record concerning evidence to which an objection is made.

Supplemental evidence is offered to support admissibility of originally filed evidence, such as Viescas in this case. 37 C.F.R. § 42.64(b)(1); see *Handi Quilter, Inc. v. Bernina Int’l AG*, IPR2013-00364, Paper 30 at 2 (PTAB June 12, 2014) (supplemental evidence “is offered solely to support admissibility of the originally filed evidence . . . and not to support any

²¹ Once filed, an exhibit becomes evidence in the proceeding. An opponent “bears the burden of establishing *inadmissibility* of an exhibit” by filing a motion to exclude the evidence. This practice is substantially different from the practice in U.S. district courts, where “the proponent bears the burden of establishing the *admissibility* of its evidence.” *Flir Systems*, IPR2014-00411, Paper 113 at 5 (emphasis added).

argument on the merits (i.e., regarding the patentability or unpatentability of a claim).”).

Accordingly, we find nothing “improper” (PO Resp. 50) about Petitioner’s submission of supplemental evidence.

(5) Was Viescas Publicly Accessible Before Nov. 1997?

In weighing the evidence, we considered: the 1991 copyright notice (Ex. 1009, 2); the statement that Viescas was “published” by Microsoft Press (*id.*); the statement prohibiting reproduction “without written permission of the publisher” (*id.*); the identified distributors in the U.S., Canada, and other countries (*id.*); “Library of Congress Cataloging-in-Publication Data” (*id.*); the testimonial evidence from Mr. Munford that Viescas was publicly available from the University of Illinois-Springfield library system as of April 15, 1992 (Ex. 1026 ¶ 6 (citing Ex. 1026, 42)); and the testimonial evidence from Mr. Munford that the MARC record indicates that Viescas was publically available as of May 30, 1991 (*id.* ¶ 7). We find that this evidence tips the scales to establish that Viescas was publicly accessible more than one year prior to November, 1997. Accordingly, a preponderance on the evidence establishes that Viescas is a valid prior art reference that can be applied against the claims of the ’818 patent.

c) Patentability of Claim 25

We now address the merits of the patentability of claim 25 based on Walker, Kelly, and Viescas.

Claim 25 recites a gaming system. Ex. 1001, 7:55–8:9. Similar to claims 20 and 24, claim 25 includes hand-held game controller that includes a non-volatile memory for storing the identification code. *Id.* at 8:4–5. Similar to claims 20 and 24, claim 25 also includes a central processing unit

(“CPU”) that wirelessly receives an “identification code.” *Id.* at 7:58–59. The CPU analyzes the identification code and retrieves data stored in the CPU memory that corresponds to the identification code. *Id.* at 7:58–59. And, again similar to claims 20 and 24, claim 25 also includes an “authorize play based on age” clause.²² As discussed above in the Claim Construction section of this Decision, the “authorize play based on age” clause in claim 25 recites that “the CPU authorizes game participation if a player’s age is within a defined age group.” *Id.* at 8:8–9).

(1) “Authorize Play Based on Age”

As stated in our Claim Construction section, we determine that the ordinary and customary meaning of all the “authorize play based on age” clauses, including the specific “authorize play based on age” in claim 25, is a control that either prohibits or adjusts operation of a video game based on the user’s age. This construction stays true to the claim language and most naturally aligns with the patent’s description of the invention.

The phrase in claim 25 that authorization is based on whether a “player’s age is within a defined age group” does not change this determination. For example, if play is restricted to players 18 years old and older, there are two age groups, under 18 or 18 and older. Patent Owner conceded that a single number, such as “under 18,” may constitute a defined age group. Tr. 65:16–66:2 (“I think that is a defined age group”). Once the system determines a player’s age based on the database, for example 14

²² See comparison chart in the Claim Construction section above summarizing and comparing the “authorize play based on age” clauses in each of the challenged claims.

years old, the system determines the player is under 18 and thus not authorized to play.

We discussed above the age restriction disclosed in Kelly. Kelly's "required conditions disclosure" discloses that players can be required to meet certain conditions before participating in a game or a tournament. Ex. 1008 at 22:42–46. Kelly's "age disclosure" discloses that the predefined requirements for authorizing play can include the age of the player. *Id.* at 42:63–43:5. Thus, Kelly's required condition that a player be a certain age, such as 18 years old or older, as a predefined age for participation, discloses, as admitted by Patent Owner, the claimed "defined age group."

Patent Owner argues, however, that an age group also *could* be based on "relative age differences" between the players to avoid a large age gap between the players. PO Resp. 43–44 (citing Ex. 2002 ¶ 90). The hypothetical of "relative age differences," however, is neither claimed nor disclosed. The entirety of the written description disclosure concerning age restrictions is the following:

The memory is used to store data, via control 136, corresponding to personal information regarding the user of the controller. Such personal information can include, but is not limited to, a user name, *age*, previous video game scores and statistics, and a current skill level for a video game. Additional information can be stored which is dependent upon the type of video games operated in the system. It will be appreciated that a controller of the present invention provides an advantage in allowing each child in a household to have a personalized controller. By including the *age* of a user, it will be appreciated that amusement games designed for a specific *age group* is not operated by an inappropriate user. Thus, operation of a video game can be prohibited based on the user *age*. Therefore, the controller provides a minimum level of supervision. Further, educational video 'games' can be adjusted to the *age* of the user.

Ex. 1001, 3:32–48 (emphases added). Patent Owner has not directed us to any persuasive evidence that the Specification discloses that an age group *could* be based on “relative age differences,” or that the term “defined age group” is properly limited to relative age differences. Moreover, “we construe the claim as written, not as the patentees wish they had written it.” *Chef America, Inc. v. Lamb-Weston, Inc.*, 358 F. 3d 1371, 1374 (Fed. Cir. 2004).

(2) *ID Code*

Claim 25 requires a game controller comprising “a non-volatile memory storing the identification code.” Ex. 1001, 8:4–5. Walker teaches that the I/O device includes a non-volatile memory. Ex. 1007, 16:26–28 (“each I/O device includes secure memory (RAM. ROM. EPROM. EEPROM and the like) for storing tournament data.”). Walker also teaches that the player enters his or her unique identifier into the I/O device. *Id.* at 6:24–25 (“The player enters 302 a unique identifier through the associated I/O device.”). However, Walker does not disclose storing the player’s unique identifier in the I/O device’s memory.

Viescas is a user guide for the Prodigy Network. Ex. 1009. One feature of the Prodigy network described by Viescas is the “Autologon” feature where the user’s ID and optionally also the user’s password is stored in a file on the user’s computer. *Id.* at 75 (exhibit page 75; document page 330).

As disclosed in Viescas, you can “streamline” the sign-in process by using Autologon to supply your member ID and, optionally, your password. Ex. 1009, 75. The Autologon feature stores the user’s ID and then uses the ID in the “start-up command” to “connect more quickly.” *Id.*

Mr. Kitchen opines it would have been obvious to a person having ordinary skill in the art to modify Walker's I/O device to store the user's unique identifier in the non-volatile memory in order to streamline the login process as taught by Viescas. Ex. 1010 ¶ 82. The rationale for the proposed change is to enable the user to login to the system more quickly. *Id.* Implementing this feature in Walker's I/O device would have required only a simple modification to I/O device software. *Id.*

Patent Owner argues that a person of ordinary skill would not have been motivated to modify Walker with Viescas's Autologon feature to store an identification code in a non-volatile memory of Walker's I/O device. PO Resp. 44–47. Patent Owner argues that Walker discloses a “secure memory within the I/O device for storing tournament data” that is used “to ‘resist tampering’ of data contained in the memory.” *Id.* at 45.

The asserted grounds of unpatentability are based on what the combined disclosures of Walker, Kelly, and Viescas would have suggested to a person of ordinary skill. As we have discussed throughout this Decision, the references provide a comprehensive disclosure of various embodiments of gaming systems: wired and wireless systems; CPUs and game controllers; various memories used on servers, controllers or elsewhere; transmitters and receivers for transmitting and receiving data between components of the disclosed systems; and specific use of user age and historical game data in either allowing or prohibiting a user to play a game. The level of skill is high — a degreed engineer with specific experience in gaming systems. On this record, we determine that it would have been obvious to a person of ordinary skill to choose the right combination of features for the objectives of the specific game system being

designed. If a faster, more streamlined, sign-on process is desired, Viescas suggest how, and why to do it. The fact that the faster sign-on process may be less secure than a more detailed, cumbersome, sign-in process does not preclude the proposed combination. *Winner Int'l Royalty Corp. v. Wang*, 202 F.3d 1340, 1349 n.8 (Fed. Cir. 2000) (“The fact that the motivating benefit comes at the expense of another benefit, however, should not nullify its use as a basis to modify the disclosure of one reference with the teachings of another. Instead, the benefits, both lost and gained, should be weighed against one another.”).

Accordingly, on this record, a preponderance of the evidence establishes that claim 25 would have been obvious based on Walker, Kelly, and Viescas.

III. CONCLUSION

Based on the analysis above, we determine that Petitioner has demonstrated by a preponderance of the evidence that claims 1, 16, 20, 21, 24, 25, 31, and 32 are unpatentable.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that claims 1, 16, 20, 21, 24, 31, and 32 are unpatentable under 35 U.S.C. § 103 based on Walker and Kelly;

FURTHER ORDERED that claim 25 is unpatentable under 35 U.S.C. § 103 based on Walker, Kelly, and Viescas; and

FURTHER ORDERED that this is a Final Written Decision under 35 U.S.C. § 318(a), and that parties to the proceeding seeking judicial

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review of the Decision under 35 U.S.C. § 319 must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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