

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD. AND
SAMSUNG ELECTRONICS AMERICA, INC.,
Petitioner,

v.

MAXELL, LTD.,
Patent Owner.

IPR2024-00777
Patent 11,017,815 B2

Before TERRENCE W. McMILLIN, KEVIN C. TROCK, and
JASON W. MELVIN, *Administrative Patent Judges*.

MELVIN, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. (collectively, “Petitioner”) filed a Petition requesting *inter partes* review of claims 16–27 (“the challenged claims”) of U.S. Patent No. 11,017,815 B2 (Ex. 1001, “the ’815 patent”). Paper 1 (“Pet.”).¹ Maxell, Ltd., (“Patent Owner”) filed a Preliminary Response. (Paper 9, “Prelim. Resp.”). Pursuant to 35 U.S.C. § 314 and 37 C.F.R. § 42.4(a), we have authority to determine whether to institute review.

An *inter partes* review may not be instituted unless “the information presented in the petition . . . and any response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a). For the reasons set forth below, we conclude that Petitioner has shown a reasonable likelihood it will prevail in establishing the unpatentability of at least one challenged claim, and we institute *inter partes* review.

A. REAL PARTIES IN INTEREST

Petitioner identifies itself as the real party in interest. Pet. 101. Patent Owner also identifies itself as the real party in interest. Paper 5, 1 (Patent Owner’s Mandatory Notices).

B. RELATED MATTERS

The parties identify the following related federal district court litigation of the ’815 patent: *Maxell, Ltd. v. Samsung Electronics Co. Ltd. and Samsung Electronics America, Inc.*, No. 5:23-cv-00092-RWS (E.D.

¹ Petitioner refers to this as “Petition 2.” Paper 4, 1–2 (Petitioners’ Notice Ranking Petitions and Explaining Material Differences between Petitions).

Tex.). Pet. 101; Paper 5, 1. We note that IPR2024-00735 addresses claims 1–15 from the ’815 patent.

C. THE ’815 PATENT

The ’815 patent is titled “Editing Method and Recording and Reproducing Device” and issued on May 25, 2021. Ex. 1001, codes (45), (54). It issued from an application filed May 26, 2020. *Id.* at code (22). The ’815 patent relates to a hierarchical management system for recording and reproducing device audio/video (“AV”) data. *Id.* at code (57). The ’815 patent describes a variety of recording and reproducing devices to which the management system relates, including a device capable of receiving and reproducing digital broadcast from an input (e.g., wave antenna, compressed AV data from another device, and analog AV), and data encryption, decryption, and processing steps prior to display on a television set screen via an output terminal. *Id.* at 4:45–55, 5:24–25, 5:28–46.

The specification describes a management system “in which the user can conduct manipulation of arbitrarily rearranging the display sequence of the play lists in the play list catalog on the user interface.” *Id.* at 2:36–39. The added upper management hierarchical level and unified management of play list and user-defined information allows the user to alter the display sequence of play lists. *Id.* at 2:53–55. The specification further describes that, in addition to an individual user’s ability to select and manage arbitrary play lists, a plurality of users sharing a single device can each manage favorite reproduction contents. *Id.* at 2:51, 2:63–67, 3:1.

D. CHALLENGED CLAIMS

Petitioner challenges claims 16–27 of the '815 patent. Pet. 1. Claim 16 is independent and is reproduced below:²

16. A method for reproducing video content associated with user profiles being implemented on an information processing apparatus, comprising:
- [16a] receiving, via a network, first video information wirelessly from a device external to the information processing apparatus, the first video information being received including second video information that is encrypted;
 - [16b] displaying, on a display device, a first user interface for a user to select a user profile from among a plurality of user profiles including a first user profile associated with a first character and a second user profile associated with a second character,
 - [16c] the plurality of user profiles being associated with video information and the first user interface including an option for a user to select the first user profile from the plurality of user profiles by selecting the first character;
 - [16d] receiving a selection of the first user profile;
 - [16e] displaying, in response to the selection, a second user interface for a user to select desired video information to be reproduced from among the first video information,
 - [16f] the second user interface being associated with the first user profile and displaying the first character, the first character associated with a first group of video information and indicating an identity of the user of the first user profile,
 - [16g] the second user interface further displaying thumbnails corresponding to the first group of video information;
 - [16h] displaying the second character and a second group of thumbnails corresponding to a second group of video

² We include bracketed limitation designations, consistent with Petitioner. Pet. vi–ix.

- information associated with the second user profile when the second character is selected,
- [16i] the first group of video information and the second group of video information including one video information that is the same;
 - [16j] receiving a selection to remove the one video information from the first group of video information associated with the first user profile;
 - [16k] removing the one video information from the first group of video information, wherein, upon the one video information being removed from the first group of video information, the one video information continues to be included in the second group of video information for the second user profile and the second group of thumbnails continues to display a thumbnail corresponding to the one video information when the second character is selected;
 - [16l] receiving a selection of desired video information based on a selection of a thumbnail from the first group of thumbnails, the desired video information included in the second video information;
 - [16m] decrypting video information corresponding to the selected thumbnail; and displaying the decrypted video information.

Ex. 1001, 11:58–12:44. Claims 17–20 depend from claim 16. *Id.* at 12:45–13:4. Claim 21 is independent and recites limitations similar to claim 16’s. *Id.* at 13:5–14:7. Claims 22–27 depend from claim 21. *Id.* at 14:8–52.

E. PRIOR ART AND ASSERTED GROUNDS

Petitioner asserts the following grounds of unpatentability:

Ground	Claim(s) Challenged	35 U.S.C. § ³	Reference(s)/Basis
6 ⁴	16–19, 21–25	103(a)	Horn ⁵ , Baumgartner ⁶ , Candelore ⁷
7	20, 26, 27	103(a)	Horn, Baumgartner, Candelore, WinTV ⁸
8	16–27	103(a)	Horn, Baumgartner, Candelore, WinTV, Chao ⁹
9	16–19, 21–25	103(a)	Kaplan ¹⁰ , Bryant ¹¹ , Wong ¹² , Candelore
10	20, 26, 27	103(a)	Kaplan, Bryant, Wong, Candelore, WinTV

Pet. 1. Petitioner relies also on the Declaration of Dr. Benjamin Bederson.
Ex. 1003.

³ The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284 (2011), effective March 16, 2013, amended the applicable statutes. Because the application from which the ’815 patent issued claims priority to an application filed before this date, the pre-AIA version of § 103 applies.

⁴ Grounds 1–5 appear in the Petition for IPR2024-00735.

⁵ U.S. Patent No. 7,275,063 B2, issued Sep. 25, 2007 (Ex. 1005).

⁶ U.S. Pub. No. 2005/0160458 A1, issued Jul. 21, 2005 (Ex. 1016).

⁷ U.S. Pub. No. 2003/0174844 A1, issued Sep. 18, 2003 (Ex. 1013).

⁸ WinTV Installation and Reference Manual, Jun. 30, 1999 (Ex. 1010).

⁹ U.S. Patent No. 7,970,240 B1, issued Jun. 28, 2011 (Ex. 1006).

¹⁰ U.S. Pub. No. 2001/0056434 A1, issued Dec. 27, 2001 (Ex. 1014).

¹¹ U.S. Pub. No. 2004/0201691 A1, issued Oct. 14, 2004 (Ex. 1015).

¹² U.S. Patent No. 7,650,361 B1, issued Jan. 19, 2010 (Ex. 1007).

II. ANALYSIS

A. PRINCIPLES OF LAW

A claim is obvious “if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” 35 U.S.C. § 103(a). The question of obviousness involves resolving 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 when presented (4) objective evidence of non-obviousness (not presented here). *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). Further, “there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007).

B. DISCRETIONARY DENIAL

Patent Owner asserts that we should exercise our discretion to deny institution for two reasons. Prelim. Resp. 3–20.

I. 35 U.S.C. § 314(a)

Patent Owner requests that we discretionarily deny institution under 35 U.S.C. § 314(a) due to the advanced state of the parallel district-court action, which Patent Owner notes has scheduled trial date of May 19, 2025. *See* Prelim. Resp. 17. Petitioner, however, has stipulated not to pursue in the district court action “the same grounds as in the petition or any grounds that could have reasonably been raised in the petition.” Paper 10, 1 (Petitioner’s

Sotera Stipulation). The Office recognizes that such stipulations mitigate concerns of potentially conflicting decisions and duplicative efforts between the Board and the district court. *See* Director Memorandum, *Interim Procedure for Discretionary Denials in AIA-Post Grant Proceedings With Parallel District Court Litigation*, U.S. PATENT AND TRADEMARK OFFICE (June 21, 2022) (“Director’s Interim Procedure”),¹³ at 7–8. Thus, given Petitioner’s stipulation we decline to discretionarily deny institution under § 314(a) based on parallel litigation.

Patent Owner asserts additionally that we should discretionarily deny institution under § 314(a) because this is the second proceeding challenging the ’815 patent and Petitioner has not justified two such challenges. Paper 8 (Patent Owner’s Response to Petitioners’ Notice Ranking Multiple Petitions). Petitioner filed a Notice Ranking Petitions, noting that this proceeding involves a second petition challenging the ’815 patent, after a petition in IPR2024-00735 challenged claims 1–15. Paper 4 (“Pet. Ranking”). Petitioner’s Ranking asserts that the two petitions challenge different claims, and that the 27 collectively challenged claims are voluminous, occupying approximately six columns of the ’815 patent. Pet. Ranking 2. We note also that the independent claims challenged in this proceeding include limitations not present in the claims challenged in the -735 IPR, such as multiple user profiles and encrypted video information. *See* Ex. 1001, claims 16, 21. We conclude that the ’815 patent’s claims justify two petitions based on a combination of the number of

¹³ Available at https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621_.pdf.

limitations and the number of claims. We therefore decline to discretionarily deny institution under § 314(a) based on multiple parallel petitions.

2. 35 U.S.C. § 325(d)

Patent Owner proposes that we discretionarily deny institution under 35 U.S.C. § 325(d) because Kaplan and Bryant previously were presented to the Office during prosecution of the '815 patent, and the Horn–Baumgartner combination is cumulative of those previously presented. *See* Prelim. Resp. 3–14.

Kaplan and Bryant were included on an Information Disclosure Statement and thus were presented, but without a substantive discussion during prosecution, we cannot understand how the Office considered the references. Based on Petitioner's contentions as discussed below, we are persuaded that the Examiner erred in considering Kaplan and Bryant. *See* Pet. 100.

The Horn–Baumgartner–Candelore combinations were not presented during prosecution, and Patent Owner has not shown that Horn's disclosures are cumulative to references that were considered. Patent Owner provides figures from Horn and Honkaniemi (Ex. 2012), a reference considered in a related prosecution (Prelim. Resp. 6–7), but those figures alone do not suffice to demonstrate sufficient similarity between the two references' disclosures. Patent Owner makes a similarly unpersuasive showing for Baumgartner and Volk (Ex. 2013), a reference “considered during examination.” Prelim. Resp. 7–8. None of those assertions persuade us that art substantially the same as the Horn–Baumgartner–Candelore grounds previously were presented to the Office.

As such, we do not discretionarily deny institution under § 325(d).

C. LEVEL OF ORDINARY SKILL IN THE ART

Petitioner asserts that ordinarily skilled artisans “would have held a bachelor’s degree in Computer Science, Electrical Engineering, and Computer Engineering, or a related field, and two years of practical experience in digital data management.” Pet. 5 (citing Ex. 1009, 9; Ex. 1002 ¶ 67). While Patent Owner acknowledges there are slight differences between their definition and Petitioner’s, Patent Owner concedes there is no practical difference between the two definitions. Prelim. Resp. 23. At this stage, we see no reason to depart from Petitioner’s proposed definition, as it appears reasonable and consistent with the asserted prior art and the ’815 patent.

D. CLAIM CONSTRUCTION

Petitioner submits that certain claim terms should be construed under 37 C.F.R. § 42.100(b), and that all other terms should be applied without construction using their plain and ordinary meaning. Pet. 5. Petitioner asserts constructions for: “video information,” “one video information,” “one video information . . . being removed from the first group of video information,” and “user profile[s].” Pet. 5–9.

Other than as discussed below regarding “user profile” (*see infra* at 16 (§ II.E.7)), no claim-construction dispute affects our decision. Thus we do not address Petitioner’s other proposed constructions at this stage. *See Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (“The Board is required to construe ‘only those terms that . . . are in controversy, and only to the extent necessary to resolve the controversy.’”) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

To the extent that the scope of a particular claim term impacts a party's argument during trial, the party should propose an express construction and show how the record supports it.

E. OBVIOUSNESS OVER HORN, BAUMGARTNER, AND CANDELORE

Petitioner asserts that claims 16–19 and 21–25 are unpatentable as obvious over Horn, Baumgartner, and Candalore. *See* Pet. 1, 20–48.

1. Horn (Ex. 1005)

Horn is titled, “Computer system for automatic organization, indexing and viewing of information from multiple sources.” Ex. 1005, code (54). Horn discloses a computer data processing system, including a central processing unit configured with a novel integrated computer control software system, for the management of data objects. Management includes dynamic and automatic organization, linking, finding, cross-referencing, viewing, and retrieval of multiple objects regardless of nature or source. Ex. 1005, code (57). Horn's overall computer control system is termed “MFS” for metadata filing system. Ex. 1005, 5:31–46.

2. Baumgartner (Ex. 1016)

Baumgartner is titled, “Interactive television system with custom video-on-demand menus based on personal profiles.” Ex. 1016, code (54); *accord id.* at code (57). The video may be television programming, video on demand content, and other information. Ex. *Id.* ¶ 82. Baumgartner's system includes “user equipment” such as a personal computer that receives videos from server 36 via a communications network 34 such as the Internet. *Id.* ¶¶ 55 (user computer equipment 22 accesses server 36 using communications path 48), 57 (video on demand content and video recorded

using a network-based video recorder are stored on server 36 and provided to user equipment including personal computers), 82 (user equipment 22 in Fig. 1 may be a personal computer 98 that receives via communications path 48 using input/output 104).

3. Candelore (Ex. 1013)

Candelore describes

a method for scrambling and descrambling program data compris[ing] the receipt of a mating key generator message including a manufacturer identifier. The mating key generator message is transmitted to a first remote source identified by the manufacturer identifier. In response, a mating key is received from the first remote source. Then, the mating key is supplied to a second remote source, the mating key being subsequently used to encrypt a service key used for scrambling program data.

Ex. 1013, code (57). To that end, Candelore describes “decrypting the encrypted content 1620 loaded into the set-top box 1610.” *Id.* ¶ 131; *accord id.* ¶ 72.

4. Reason for the combination

Petitioner contends skilled artisans would have had reason to combine Horn with Baumgartner:

by configuring a PC with functionality, such as a Metadata Filing System (MFS) and associated content management software for managing information including movies, photos, and music as taught by Horn to receive, locally store, and manage video information, including video on demand content and television programs via a wireless connection to the Internet and associate such information with user-selectable user profiles as taught by Baumgartner.

Pet. 20. Petitioner further argues that skilled artisans would have understood video information was among the content data and information Horn organizes, indexes, and views because, although Horn focuses on photographs and music, Horn also explicitly discloses video information, i.e., “movies.” *Id.* at 21 (citing Ex. 1005, 12:13; Ex. 1003 ¶ 132). Petitioner contends that Baumgartner is directed toward a system for managing a user’s access to videos, including video-on-demand content such as movies, and discloses embodiments in which a personal computer device obtains video information from a service via the Internet, as taught in Horn. *Id.* at 21 (citing Ex. 1016 ¶¶ 8, 54–55, 82, Figs. 1, 5). Because Horn discloses a connection to the Internet and a LAN but does not provide any implementation details for that connection, Petitioner submits that a skilled artisan would have sought that additional detail in Baumgartner. *Id.* Baumgartner discloses a wireless implementation of an Internet connection to server 36 as well as storage of video information on a computer’s hard disk drive. *Id.* at 21 (citing Ex. 1016 ¶¶ 54, 85, Fig. 1). Petitioner further submits that skilled artisans would understand to implement a network as a wireless LAN because doing so would have been cheaper and easier than using a wired LAN. *Id.* at 27–28 (citing Ex. 1003 ¶ 283).

Petitioner argues Baumgartner “discloses multiple user profiles that are selectable by a user” and that skilled artisans would have sought to add that functionality in Horn’s system “because Horn teaches personalizing information organization for each individual user based on user preferences.” *Id.* at 21.

Petitioner further argues that modifying the Horn–Baumgartner combination by using encrypted content as taught by Candelore would be

obvious to a skilled artisan because doing so provides known security techniques to video information on a known device (the Horn–Baumgartner computer system receiving and storing video information and with processors capable of performing encryption and decryption algorithms). *Id.* at 23.

Patent Owner contends that skilled artisans would not have been motivated to combine Horn with Baumgartner because they are two different systems. Prelim. Resp. 38 (citing Ex. 2021 ¶ 65). Specifically, Patent Owner argues that Horn is directed to making “collections” based on keywords in documents, and is not directed to making any video-on-demand collections based on a user watch history. *Id.* at 39 (citing Ex. 2021 ¶ 68). We do not agree with Patent Owner, because Patent Owner has not supported that either reference is nonanalogous art, and therefore it is inapposite that they are different systems.

Patent Owner further argues that a skilled artisan would not substitute a hardwired LAN, as taught by Horn, with the wireless modem, as taught by Baumgartner. *Id.* at 39–40 (citing Ex. 2021, ¶¶ 69, 70). Patent Owner argues that it would have been cost prohibitive for a skilled artisan to implement a wireless modem. *Id.* We note that Petitioner relies on not just the expense of a network card, which Patent Owner focuses on, but also on “elimination of the need to run wires to all the endpoint computers in the network.” Pet. 28. Petitioner additionally relies on improved convenience to users. *Id.* On balance, we determine that Petitioner has identified sufficient reason that skilled artisans would have made the combination. Patent Owner has, at most, identified a potential factual dispute that may be resolved through trial.

Patent Owner argues next that the combination would defeat Horn's intended use because Horn "permits faster archiving, retrieval and viewing information" and requires security, whereas wireless networks would have slowed that operation and introduced potential security risks. Prelim. Resp. 40–42. We do not agree that Horn requires a particular network speed to satisfy its fundamental operation. As with the cost of various networks, Patent Owner's arguments regarding speed and security at most establish factual disputes about the desirability of the combination. They do not undermine Petitioner's stated reasons for the combination identified above.

5. Dr. Bederson's testimony

Patent Owner argues that we should discount Dr. Bederson's testimony regarding wireless communications, because he lacks sufficient qualification to express such opinions. Prelim. Resp. 42–44. We do not discount the testimony at this stage, but Patent Owner will be able to cross examine Dr. Bederson regarding the bases for his testimony, and challenge that testimony in the instituted trial.

6. Receiving video information wirelessly

Patent Owner challenges whether the asserted combination discloses receiving digital video information by the network interface wirelessly, limitation 16[a] above. Prelim. Resp. 44–45. Much of the argument addresses Horn individually, without considering the asserted combination. Such arguments are inapposite and do not undermine whether the combination teaches the wireless limitation. To the extent Patent Owner addresses the combination, it does so only to question whether skilled

artisans had reason to combine the references as asserted, and we address those arguments above.

7. *User profiles associated with video information*

Patent Owner challenges whether the asserted combination discloses “the plurality of user profiles being associated with video information and the first user interface including an option for a user to select the first user profile from the plurality of user profiles by selecting the first character,” limitation 16[c] above. Prelim. Resp. 45–47 (emphasis omitted). Patent Owner first faults Petitioner for not addressing why the combination teaches a “user profile” at all. *Id.* at 46. In that regard, Patent Owner relies on Petitioner’s proposed construction that a “user profile” requires “data representing distinctive features and characteristics of a user.” *Id.* at 45 (quoting Pet. 8) (emphasis omitted). Patent Owner appears to argue that Petitioner’s construction requires *both* features *and* characteristics. We do not see a meaningful distinction between those terms in the proposed construction, and Petitioner’s support makes no such distinction. *See* Ex. 1047, 3; Ex. 1048, 3. To the extent Patent Owner relies solely on the conjunctive “and” in the proposed definition, we see no reason to limit a user profile to require both features and characteristics. Thus, we construe a user profile as data representing a user’s distinctive features or characteristics.

Horn discloses that its system facilitates “information organization personalized for each individual user based on preferences selected by the user.” Ex. 1005, 6:11–22. Baumgartner discloses that its system uses “menus based on personal profiles.” Ex. 1016, code (54); *accord id.* ¶ 165 (“If there are multiple users that are able to use a given user equipment, each user may

have a personal profile.”). It further discloses an embodiment where a user selects a profile from among a plurality of profiles “by pressing a button assigned to them.” *Id.* ¶ 165. We determine at this stage that Baumgartner’s disclosure satisfies the claim language requiring a user profile.

Patent Owner disputes whether the combination discloses user profiles associated with video information as recited in limitation 16[c] above. Prelim. Resp. 45–47. In this regard, Patent Owner rehashes its arguments that Horn does not disclose video information and that there would have been no reason for the asserted combination. *Id.* Patent Owner’s argument ignores that the combination accounts for video information in limitation 16[a] through Baumgartner’s disclosures. Pet. 20–23, 25–30. Additionally, Petitioner points out that Horn discloses that its system operates to organize “movies,” which are video information. *Id.* at 27 (quoting Ex. 1005, 12:8–18). Because “video information” is first recited in limitation 16[a], we do not fault Petitioner for failing to make the same showing regarding “video information” in its contentions for limitation 16[c], where Petitioner addresses the user-profile and video-information-association requirements.

8. Thumbnails

Patent Owner disputes whether the combination discloses displaying a thumbnail corresponding to video information as claimed in limitation 16[h] above, submitting that, because Horn does not disclose video information and does not support combination with Baumgartner, it does not disclose displaying thumbnails. Prelim. Resp. 47–48. We do not agree with either of those two predicates, and do not agree at this stage that Petitioner’s showing regarding thumbnails is deficient.

9. Summary

Other than as discussed above, Patent Owner does not contest Petitioner's showing regarding obviousness over Horn, Baumgartner, and Candelore. We have reviewed Petitioner's contentions, including the uncontested aspects, and conclude that Petitioner has adequately supported institution. *See* Pet. 20–48.

F. OBVIOUSNESS OVER HORN, BAUMGARTNER, CANDELORE, AND WINTV

Petitioner asserts that claims 20, 26, and 27 are unpatentable as obvious over Horn, Baumgartner, Candelore, and WinTV. *See* Pet. 1, 48–55.

1. WinTV (Ex. 1010)

The WinTV card (“WinTV”) was a product offered for sale/sold in the U.S. by Hauppauge Computer Works, Inc. Petitioner contends that WinTV was available by at least 11/10/1999 (Ex. 1011). The Installation and Reference Manual (Ex. 1010) is dated 6/30/1999 (Ex. 1010, 6 (native p. iii)). Petitioner contends that the WinTV manual was published no later than September 14, 2003 on the hauppauge.com website. Ex. 1008, 1 ¶ 5 (explaining date encoding in URL), 2 (referencing Folder 002 with capture date in URL of 9/14/2003), 296–380 (Ex. 1010 is a copy of pages 296–380 of Ex. 1008). Petitioner contends that a skilled artisan would have been familiar with Hauppauge WinTV products as they were among the early TV tuner products at that time and were one of only two TV tuner products supported by the Windows Media PC. The WinTV card was a “Plug-and-Play” device installed in PCs running Windows 95, 98 and NT 4.0 (Ex. 1010, 1-1), that along with its software applications (e.g., WinTV-Capture) allowed for the receipt, playback and “motion video capture” of

video and, in combination with a sound card, audio information such as those contained in NTSC formatted television signals. *Id.* at 3-4, 4-1, 4-5. The video information can come from a connected device such as a VCR, video camera or camcorder (*id.* at 1-13), or a live feed such as over the air or cable TV programming. *Id.* at 1-1, 6-1. WinTV also discloses signal conversion (e.g., A–D) and video and audio compression techniques designed to increase efficiency and storage. *Id.* at 3-9, 4-1, 4-5, 4-6, 7-1.

2. WinTV's public accessibility

Petitioner submits that WinTV was published on Hauppauge Computer Works's website no later than September 14, 2003. Pet. 15. According to Petitioner, skilled artisans would have been familiar with Hauppauge's products "as they were among the early TV tuner products at that time and were one of only two TV tuner products supported by the Windows Media PC." *Id.* Petitioner further notes that the products were mentioned in patents "that would have come to the attention of a [skilled artisan] looking for information on such products." *Id.* at 15–16 (citing Ex. 1037, 2:6–8; Ex. 1038, 3:51–55). Although Petitioner does not provide citations for some of its assertions, we note that Dr. Bederson supports the assertions with his testimony. Ex. 1003 ¶ 101.

Patent Owner challenges whether WinTV was publicly accessible. Prelim. Resp. 31–34. In particular, Patent Owner challenges the degree to which the WinTV owner's manual (Exhibit 1010) was indexed or searchable. *Id.* at 33–34. In our view, Petitioner's showing is sufficient for institution and establishes that WinTV was publicly accessible. Patent Owner has, however, identified a factual dispute that will benefit from

further development at trial. Petitioner may wish to supplement the record with additional evidence regarding WinTV's accessibility, now that the issue is in dispute.

3. *Reason for the combination*

Petitioner asserts that Baumgartner explicitly suggests including a television tuner card, as disclosed by WinTV, for decoding analog and digital television channels in a personal computer. Pet. 48 (citing Ex. 1016 ¶ 83). Petitioner contends skilled artisans would have found it obvious to include WinTV's television tuner card in a personal computer, as taught by Horn and Baumgartner, because it provides additional capability to capture videos from television signals and such combinations were known in the art. *Id.* at 49 (citing Ex. 1003 ¶ 336).

Patent Owner asserts that skilled artisans would not have had reason to combine Horn with WinTV "because they are two different systems." Prelim. Resp. 48. Patent Owner contends that Horn teaches only a "simple-to-use data structure" in a computer data processing system "and is not directed to receiving, playing and recording of video." *Id.* at 49. Those arguments are inapposite and Patent Owner has not attempted to show that either reference is nonanalogous art. Patent Owner does not directly address Petitioner's stated reasons for the combination. We determine at this stage that Petitioner has adequately supported the reasons that skilled artisans would have added WinTV's tuner card to the combined Horn–Baumgartner–Candelore system.

4. Summary

Other than as discussed, Patent Owner does not challenge Petitioner's contentions regarding obviousness over Horn, Baumgartner, Candelore, and WinTV. The Petition provides a showing that the limitations recited in claims 20, 26, and 27 are taught by Horn, Baumgartner, Candelore, and WinTV. Pet. 48–55. Petitioner articulates with supporting reasoning and evidence why skilled artisans would have been motivated to combine the relied-on teachings of Horn, Baumgartner, Candelore, and WinTV. *Id.* We have reviewed Petitioner's contentions and determine that there is a reasonable likelihood that Petitioner will prevail with respect to the unpatentability of claims 20, 26, and 27 over Horn, Baumgartner, Candelore, and WinTV.

G. OBVIOUSNESS OVER HORN, BAUMGARTNER,
CANDELORE, WINTV, AND CHAO

Petitioner asserts that claims 16–27 are unpatentable as obvious over Horn, Baumgartner, Candelore, WinTV, and Chao. *See* Pet. 1, 55–60.

1. Chao (Ex. 1006)

Chao discloses a “computer-based, digital-image management system that visually presents an entire archive in a manner that facilitates easy, non-textual searching for specific images.” Ex. 1006, code (57). Figure 8 is reproduced below:

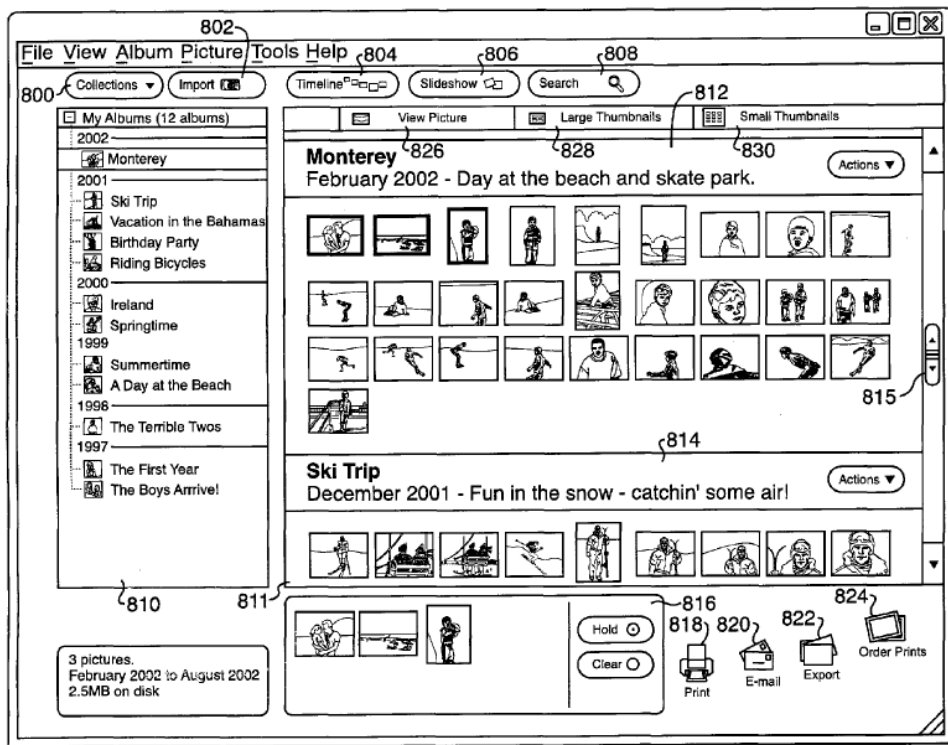


FIG. 8

Id. at 9. Figure 8 is a screenshot depicting a way in which a user may interact with Chao’s archiving system, including a “Collections” button 800, display area 810 for presenting archived collections, and title area 814. *Id.* at 12:56–13:39, Fig. 8. Images represented by thumbnails (as shown in the “My Albums” display area 810) are clustered into collections/albums, which themselves are represented by thumbnails (as shown in the display area 811) based on events, which are then clustered by time such as the year the photos were taken (1997–2002 in display area 810). *Id.* at 12:56–13:9.

2. Reason for the combination

Petitioner asserts that skilled artisans would have had reason to “add[] thumbnails for albums/folders of content data as taught by Chao” in the combined Horn–Baumgartner–Candelore and Horn–Baumgartner–

Candelore–WinTV systems discussed above. Pet. 55–60. Petitioner reasons that folders would have been included in Horn’s content pane and that skilled artisans would configure the system to display a thumbnail for such folders, rather than a folder icon, because Horn already teaches thumbnails for individual objects, and using thumbnails for folders of objects would “provide easy visual navigation for users through their collections, folder, and files, as is taught by Horn.” *Id.* at 58–59. Petitioner adds that thumbnails were already used “to improve the user experience by providing a faster and more efficient way to browse through media content,” so the change would have been applying a known technique in a predictable way. *Id.* at 59.

Patent Owner asserts that Petitioner provides no motivation for the combination. Prelim. Resp. 50–52. As noted above, that ignores Petitioner’s stated reasoning. *See* Pet. 55–60. Patent Owner also faults Petitioner for failing to show “how a [skilled artisan] would get access to OS code running on the Horn computer” to make the modification (Prelim. Resp. 51), but that ignores the conceptual nature of an obviousness challenge and attempts to inject a notion of bodily incorporation that the law does not require.

3. Summary

Other than as discussed, Patent Owner does not challenge Petitioner’s contentions regarding obviousness over Horn, Baumgartner, Candelore, WinTV, and Chao. The Petition provides a showing that the limitations recited in claims 16–27 are taught by Horn, Baumgartner, Candelore, WinTV, and Chao. Pet. 55–60. Petitioner articulates with supporting reasoning and evidence why skilled artisans would have been motivated to combine the relied-on teachings of Horn, Baumgartner, Candelore, WinTV, and Chao. *Id.* We have reviewed Petitioner’s contentions and determine that

there is a reasonable likelihood that Petitioner will prevail with respect to the unpatentability of claims 16–27 over Horn, Baumgartner, Candelore, and Chao (claims 16–19 and 21–25), and over Horn, Baumgartner, Candelore, WinTV, and Chao (claims 20, 26, and 27).

H. OBVIOUSNESS OVER KAPLAN, BRYANT, WONG, AND CANDELORE

Petitioner asserts that claims 16–19 and 21–25 are unpatentable as obvious over Kaplan, Bryant, Wong, and Candelore. *See* Pet. 1, 61–98.

1. Kaplan (Ex. 1014)

Kaplan is directed to “a multimedia management system for storing, manipulating, and displaying multimedia content.” Ex. 1014 ¶ 4. To facilitate the storage and subsequent retrieval of multimedia data files, the system includes a user interface with a plurality of predefined functions to uniquely index multimedia files, create an index database file, and create visual representations of the files for later retrieval. *Id.* ¶ 44. The indexed file stores a pointer in a management system database to a physical file location, while providing a thumbnail image that can be used to represent the file in the user interface. *Id.* Multiple pointers in the database may be related to a single physical file stored on computer media, so there is no need to store multiple physical files of the same multimedia data. *Id.* Kaplan’s Figure 4 is reproduced below:

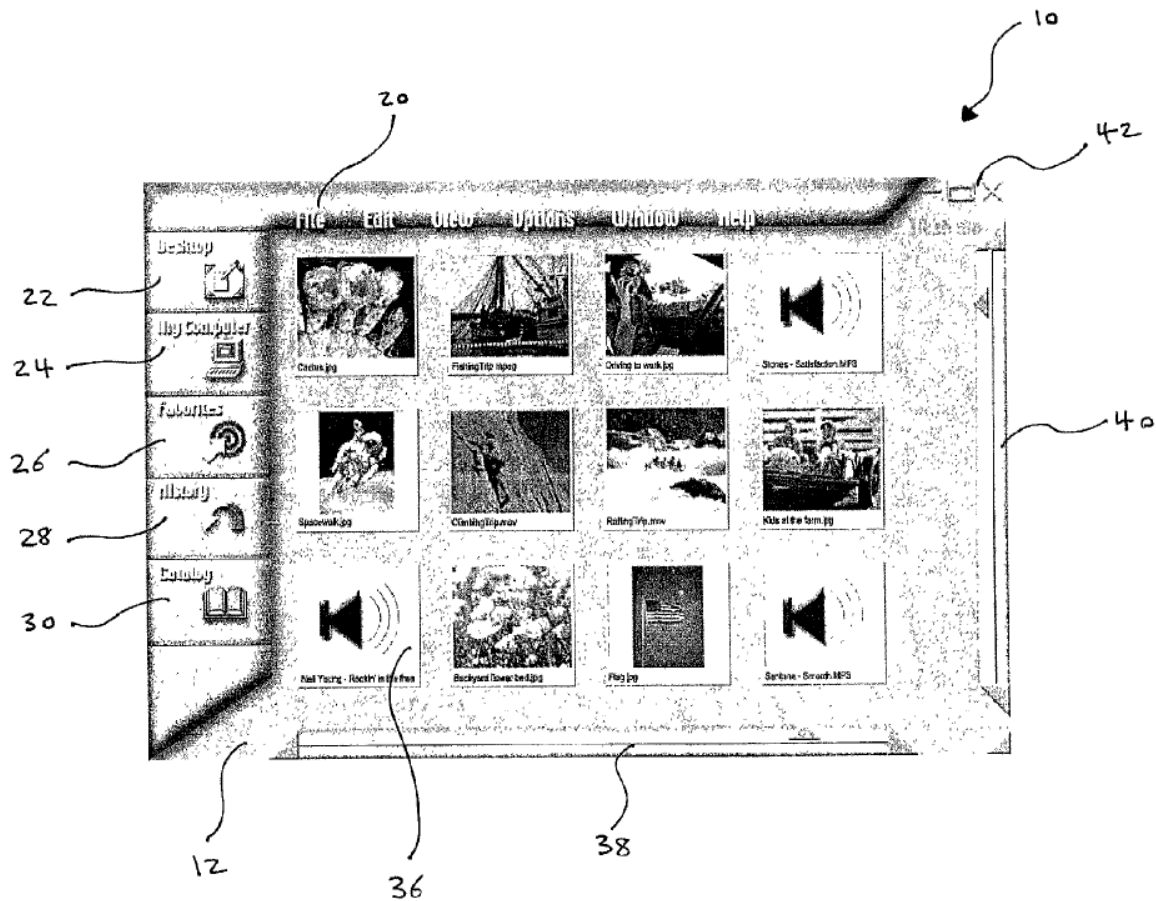


FIG. 4

Id. at Fig. 4. Figure 4 is a graphical representation of control options available to a user via interface 12 that can be displayed on a “monitor or TV.” *Id.* ¶¶ 14, 39. Functions associated with user interface 12 may be carried out via control buttons for various primary options in user interface 12, including Desktop 22, My Computer 24, Favorites 26, History 28, and Catalog 30. *Id.* ¶¶ 39–40. For example, users may store their favorite multimedia content by way of the Favorites 26 primary option. *Id.* ¶ 42. All information and multimedia content is displayed through thumbnails 36, which are small image representations of larger images. *Id.* ¶ 40. A user may click on thumbnails to view and/or listen to multimedia content. *Id.* ¶ 50.

Playback may occur within the thumbnail itself, in a partial-screen mode, or in a full-screen mode. *Id.* ¶ 51.

2. *Bryant (Ex. 1015)*

Bryant is directed to “grouping and classifying digital still images and digital motion images captured using a handheld digital camera.” Ex. 1015 ¶ 29. Grouping and classification data are stored in a database on a host computer. *Id.* The classification provides “affective information,” which is information that relates to the feelings or emotions of a person toward images. *Id.* ¶ 30. An example of affective information is the level of importance a user associates with an image, such as whether the image is a “favorite.” *Id.*

Bryant discloses that its database includes “favlevel” metadata, which indicates whether the user has selected the image as a favorite, and “thmnl” metadata in row 692, which holds a copy of the compressed thumbnail image as stored by the digital camera. *Id.* ¶¶ 84, 85, 87.

Figure 9A of Bryant is reproduced below:

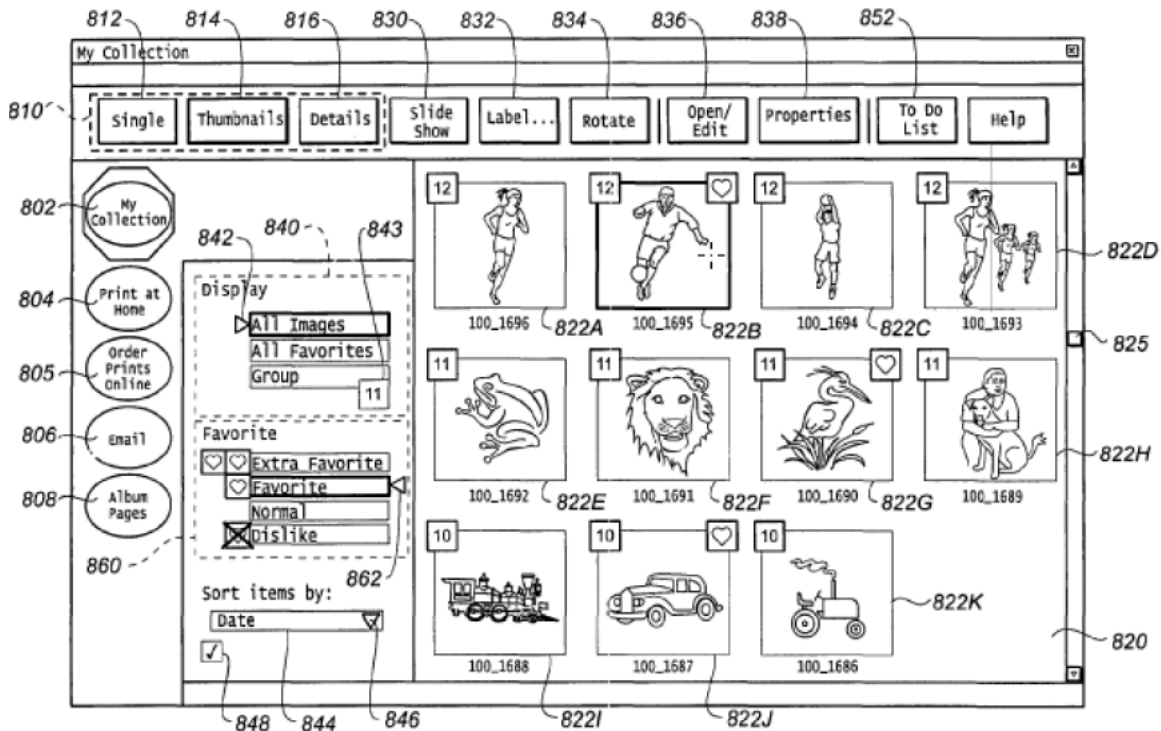


FIG. 9A

Id. at Fig. 9A. Figure 9A depicts an example of a computer user interface screen for displaying all of the transferred images. *Id.* ¶ 89. The user interface screen includes area 820 for displaying the thumbnail images provided using “thmnl” metadata 692 of each object from general assets table 600. *Id.* By moving selector 842 within display selection area 840, the user can select among the display of “All Images,” “All Favorites,” or “Group” based on group number/name box 843. *Id.* The user also can change the level of a selected image to be an “Extra Favorite,” a “Favorite,” a “Normal,” or a “Dislike” image using selector 862 in favorites level selection area 860. *Id.* ¶ 96.

3. Wong (Ex. 1007)

Wong is titled “Media content modification and access system for interactive access of media content across disparate network platforms.” Ex. 1007, code (54). Wong discloses a media content playlist generation and access system for a video entertainment network. *Id.* at code (57). Wong discloses that a plurality of media content from various networks may be conglomerated into a customized list, which may contain stored media content. *Id.* The system also provides manipulation of the playlist from various device displays that are interconnected to the Internet, for further user customization of the playlist. *Id.* Multiple user accounts are provided, which may also be configured for corresponding multiple individualized playlists, each customized to the user’s tastes. *Id.*

Wong discloses an interface allowing a user to select a user profile from among a plurality of user profiles. *Id.* at code (57), 3:13–27, 4:1–5, Fig. 3. Wong’s Figure 3 is reproduced below:

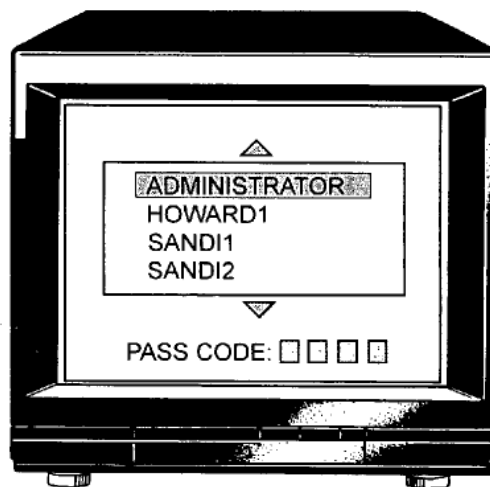


FIG. 3

Id. at Fig. 3. Figure 3 is a screenshot depicting log-in access for the playlist generation and access system. As shown, several active usernames may be displayed in the username window 40, and one username may be highlighted by pressing the “up”, or “down” button on remote-control device 20. *Id.* at 8:14–40. An authentication scheme is provided for user account access security purposes, including viewing and/or modifying playlists. *Id.*

4. Reason for the combination

Petitioner asserts that skilled artisans would have had reason “to supplement the teachings of Kaplan by using Bryant’s teachings regarding image capture and obtaining video information with a user’s camera.” Pet. 61. Petitioner reasons that including “the richer metadata in Bryant would have improved the Kaplan system, allowing for more effective (e.g., more detailed or more personalized) organization and retrieval of multimedia information.” *Id.* at 61. Petitioner reasons further that using Bryant’s “user-customizable metadata, such as ‘groups’ and corresponding areas of the interface menu . . . would allow for more effective (e.g., more detailed or more personalized) organization and retrieval of multimedia information.” *Id.* at 61–62. Petitioner notes that Bryant’s enhanced metadata “would be useful with respect to the search functions in Kaplan.” *Id.* at 62.

Petitioner adds that a skilled artisan would have found it obvious to incorporate interface-accessible, unique profiles for multiple users to the Kaplan–Bryant computer system, as taught by Wong, because Bryant discloses that, due to users having unique emotional reactions to images, “to be most useful, affective information relating to images should be associated with a particular user.” *Id.* at 63–64 (citing Ex. 1015 ¶ 32) (emphasis

omitted). Petitioner notes that Bryant also discloses user identifiers and teaches personalizing information organization for individual users; therefore, combining Wong with Kaplan-Bryant would simply be applying a known technique for multiple user profiles to a known computer system device for user content management. *Id.* at 63–65. Petitioner further contends that it would have been obvious to a skilled artisan to modify the Kaplan–Bryant or Kaplan–Bryant–Wong combinations by using encrypted content, as taught by Candelore. *Id.* at 65–66. Petitioner asserts motivation would have come from the benefit of adding security for video information. *Id.*

Patent Owner contends that Petitioner’s reasons for the combination are conclusory and vaguely stated, and further asserts that Petitioner shows what Kaplan, Bryant, Wong, and Candelore teach individually, but fails to adequately articulate how the references’ teachings may be combined. Prelim. Resp. 52–61. We view the combination as adequately stated, and determine at this stage that the reasons justify the combination. Should Patent Owner believe that Petitioner has not justified an aspect of the combination asserted against a particular limitation, we will address such arguments made during trial.

Patent Owner does point to some limitations where it believes Petitioner’s justification falls short. It asserts that the contentions against limitations 16[j] and 16[k] cite extensively to the references without adequate explanation. *Id.* at 58. We do not agree. Petitioner explains that the combination uses Bryant’s metadata teachings to improve Kaplan’s system by more effectively managing multimedia information. *See* Pet. 61. For limitations 16[j] and 16[k], Petitioner relies on Kaplan disclosing “an

indexed database file and pointers to a physical file location for an object such as a video.” *Id.* at 85. Petitioner explains how that structure facilitates the limitations at issue. *Id.* at 86. That Petitioner additionally explains how Bryant also discloses a structure facilitating the limitations (*id.* at 87–90) does not confuse the issue or somehow undermine obviousness.

Patent Owner contends further that Petitioner relies on Horn for limitation 16[h] without justifying such a combination. Prelim. Resp. 60 (citing Pet. 81, 83). Petitioner’s contentions for that limitation assert that the Kaplan–Bryant combination discloses a second group of thumbnails corresponding to a second group of video information (Pet. 81–82), and that when the system is modified to incorporate Wong’s multiple user profiles, it would operate as claimed (*id.* at 82–83). We agree with Patent Owner that the Petition is somewhat unclear regarding Wong’s display of accounts and media—the Petition asserts that, although Wong uses text, using thumbnails as taught by Horn would have been obvious “for the reasons set forth in limitation [16h].” *Id.* at 83. Because that reference is made within a discussion of limitation 16[h], it is understood to refer to assertions against that limitation in the earlier, Horn–Baumgartner–Candelore ground, which itself references earlier discussion (*see id.* at 39). Petitioner asserts that Horn discloses thumbnails corresponding to stored information. *See id.* at 38–39. But Petitioner never expressly justifies using Horn’s thumbnails within the Kaplan–Bryant–Wong–Candelore combination. Given Petitioner’s contention that the combination already discloses a second group of thumbnails corresponding to a second group of video information, it is not clear from the present record whether Petitioner requires any teaching from

or motivation concerning Horn. We leave this issue for possible resolution through trial.

5. Wirelessly receiving video information

Petitioner asserts that both references disclose receiving video information via the Internet, for storage on a hard drive. Pet. 68 (citing Ex. 1014 ¶¶ 3, 4, 71; Ex. 1015 ¶ 149). Petitioner asserts it would have been obvious to incorporate “a wireless modem in place of [Bryant’s] modem 22 for connection to the Internet service provider . . . to allow . . . Bryant’s home computer to be placed where a wired connection was unavailable.” Pet. 67–68.¹⁴ Petitioner notes that Baumgartner teaches wireless connection of a computer to the Internet, and that using such known technology was “nothing more than the use of a known product for its intended purpose and involved minimal skill.” *Id.*

Patent Owner contests whether the Kaplan–Bryant combination discloses wirelessly receiving video information (Prelim. Resp. 61–62), but does not address Petitioner’s additional assertion discussed above—that common knowledge beyond Kaplan and Bryant additionally informed skilled artisans such that using a wireless rather than wired network would have been obvious. Patent Owner does not explain why Petitioner is wrong in that regard.

¹⁴ Petitioner notes that Bryant’s camera already includes “a wireless modem.” Pet. 67. Bryant discloses a camera where the modem “transmits some or all of the captured images to a service provider.” Ex. 1015 ¶ 137; *accord id.* ¶ 140. That further supports using a wired network connection in Bryant’s home computer.

We determine at this stage that Petitioner’s contentions adequately support institution, because Petitioner has shown that the required modification was known in the prior art and that skilled artisans had reason to make the modification.

6. *User profile associated with video information*

Petitioner asserts that Bryant discloses “the plurality of user profiles being associated with video information” (limitation 16[c] above) because Bryant teaches “affective information relating to images should be associated with a particular user.” Pet. 63 (quoting Ex. 1015 ¶ 32).

Patent Owner contests whether the Kaplan–Bryant–Wong combination discloses the claimed user profile, but does so only on the basis of the same narrow claim construction discussed above regarding Horn and Baumgartner, which we do not adopt. *See supra* at 16 (§ II.E.7).

We determine at this stage that Bryant’s teaching satisfies the claim language.

7. *Video information continuing to be included in a second group after being deleted from the first group*

Petitioner asserts that the Bryant–Kaplan combination discloses that video information included in both the first and second groups but then deleted from the first group continues to be included in the second group, as in limitation 16[j]/[k] above, for several reasons.

First, Petitioner asserts that issue preclusion and collateral estoppel preclude Patent Owner from contesting that Bryant discloses the limitation or that the Bryant–Kaplan combination renders the limitation obvious. Pet. 84–85. Petitioner relies on “nearly identical” language and substantive match between limitation 16[j]/[k] here and “limitation 2.9” of U.S. Patent

No. 9,384,783, also owned by Patent Owner, which the Board addressed in IPR2018-01432.¹⁵ Ex. 1009, 10–15 (construction), 31–36 (disclosure by Bryant–Kaplan combination).

Next, Petitioner asserts that Kaplan discloses “an indexed database file and pointers to a physical file location for an object such as a video.” Pet. 85 (citing Ex. 1014 ¶ 44). Petitioner further asserts that Bryant discloses “multiple collections of image objects represented by thumbnails” and managing those collections with a “local database” with a structure that “allows a media file to be simultaneously classified in multiple groups.” *Id.* at 87–90; *see* Ex. 1009, 31–35; Ex. 1015 ¶¶ 82–87, 89–106.

As to collateral estoppel, Patent Owner points out that the Board’s prior decision was made under a “broadest reasonable interpretation” claim-construction standard and thus “the claim construction issues have not actually been litigated.” Prelim. Resp. 65. That may be so, but Patent Owner has not raised a claim-construction issue here regarding limitation 16[k]. Patent Owner also asserts that the claim language here is not meaningfully the same as that in the earlier decision. *Id.* at 66. But Patent Owner points only to other limitations, not to 16[j] and 16[k]. *Id.* We do not understand collateral estoppel to apply only to whole claims, but to patentability issues affecting such claims. *See Google LLC v. Hammond Development Int’l, Inc.*, 54 F.4th 1377, 1382 (Fed. Cir. 2022) (“It is well established that patent

¹⁵ “Limitation 2.9” in the ’783 patent recites “wherein, even if one video information recorded on the recording medium included in both the first group of video information and the second group of video information is deleted from the first group of video information, the one video information continue to be included in the second group of video information.” Ex. 1009, 10–11 n.4; *accord* Ex. 2009, 9:15–20.

claims need not be identical for collateral estoppel to apply. Rather, collateral estoppel requires that the issues of patentability be identical.” (citations omitted)). That said, we need not decide the collateral-estoppel issue at this stage, because we agree with Petitioner that the Kaplan–Bryant combination teaches the limitation based on the disclosures identified above.

8. Summary

Other than as discussed above, Patent Owner does not contest Petitioner’s showing regarding obviousness over Kaplan, Bryant, Wong, and Candelore. We have reviewed Petitioner’s contentions, including the uncontested aspects, and conclude that Petitioner has adequately supported institution. *See* Pet. 61–98.

I. OBVIOUSNESS OVER KAPLAN, BRYANT, WONG, CANDELORE, AND WINTV

Petitioner asserts that claims 20, 26, 27 are unpatentable as obvious over Kaplan, Bryant, Wong, Candelore, and WinTV. *See* Pet. 1, 98–99. Patent Owner does not separately address these assertions beyond our discussion above regarding Kaplan, Bryant, and Candelore. We will address any disputed contention during the instituted trial.

III. CONCLUSION

For the reasons discussed above, we conclude Petitioner has shown a reasonable likelihood of prevailing with respect to at least one claim. We have evaluated all of the parties’ submissions and determine that the record supports institution.

This decision to institute trial is not a final decision as to patentability of any challenged claim, or any factual or legal issue underlying

patentability. Any final decision will be based on the full record developed during trial. We expressly inform Patent Owner that any argument not asserted in a timely filed Response or another manner permitted during trial shall be deemed forfeited or waived, regardless of whether the argument was presented in the Preliminary Response.

IV. ORDER

Accordingly, it is

ORDERED that, pursuant to 35 U.S.C. § 314(a), *inter partes* review of claims 16–27 of the '815 patent is instituted on the grounds set forth in the Petition; and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial commencing on the entry date of this decision

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