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Paper 10
Date: February 12, 2025

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ROKU, INC.,
Petitioner,

v.

ANONYMOUS MEDIA RESEARCH HOLDINGS, LLC,
Patent Owner.

IPR2024-01058
Patent 10,719,849 B2

Before ELIZABETH M. ROESEL, FREDERICK C. LANEY, and MICHAEL T. CYGAN, *Administrative Patent Judges.*

LANEY, *Administrative Patent Judge*.

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

I. INTRODUCTION

Roku, Inc. ("Petitioner") filed a Petition (Paper 2, "Pet.") requesting an *inter partes* review of claims 1–13 of U.S. Patent No. 10,719,849 B2 (Ex. 1001, "the '849 patent"). Anonymous Media Research Holdings, LLC ("Patent Owner") filed a Preliminary Response (Paper 7, "Prelim. Resp.").

We have authority to determine whether to institute an *inter partes* review. 35 U.S.C. § 314 (2024); 37 C.F.R. § 42.4(a) (2024). 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 that follow, we do not institute an *inter partes* review because the information presented in the Petition, in view of the Preliminary Response, does not persuade us that Petitioner is reasonably likely to prevail with respect to at least 1 of the claims challenged.

II. BACKGROUND

A. Related Matters

The parties identify the following civil actions as related matters: *Anonymous Media Research Holdings LLC v. Samsung Electronics Co. Ltd.*, No. 2:23-cv-00439 (E.D. Tex.); and *Anonymous Media Research Holdings LLC v. Roku, Inc*., No. 3-24- cv-04171 (N.D. Cal.). Pet. 106; Paper 8, 2 (Patent Owner's Second Updated Mandatory Notices).

B. Priority Date

The ’849 patent was issued July 21, 2020 from an application that was filed October 22, 2019, and asserts the benefit of a nonprovisional application filed May 26, 2005, as well as a provisional application filed May 27, 2004 (hereinafter “the 2004 provisional application”). Ex. 1001, codes (22), (45), (60), (62).

Petitioner contends that the ’849 patent claims are not entitled to priority based on the 2004 provisional application (Ex. 1009), and consequently, the earliest effective priority date is May 26, 2005. Pet. 1, 16–18. But Patent Owner has not contested the prior art status of Petitioner’s asserted references (*see generally* Prelim. Resp.), and it is unnecessary for us to address that issue to reach a decision in this case. As a result, we accept Petitioner’s contention about the priority date for purposes of this Decision.

C. The ’849 patent (Ex. 1001)

The ’849 patent discloses a media usage monitoring and measurement system and method, including “analyz[ing] sequence data to enhance content identification and/or to establish channel identification.” Ex. 1001, codes (54), (57).

Figure 1 is reproduced below.

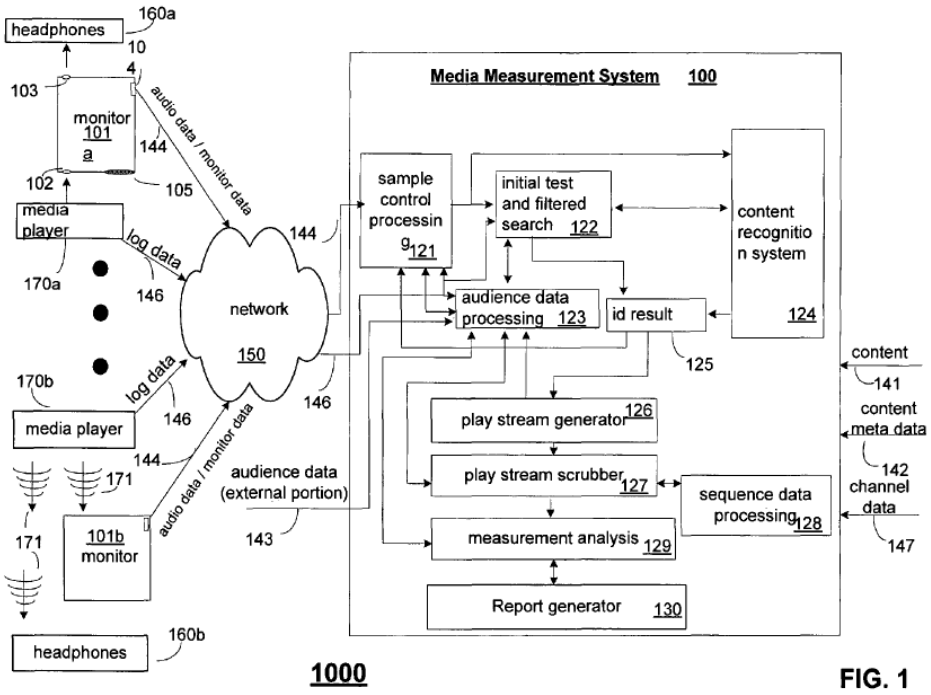

FIG. 1

Figure 1 shows a media usage monitoring and measurement system, including monitoring devices 101, which capture audio/monitor data 144 from media player 170 and upload the data through network 150 to media measurement system 100, where the data is received at sample control processing module 121. Ex. 1001, 2:30–32, 3:5–28, 3:45–50, 4:58–60. The audio data is divided into samples, either at monitor 101 or at module 121. *Id.* at 4:62–67. Module 121 submits a sample either to initial test and filtered search module 122 or to content recognition system 124. *Id.* at 4:67–5:3. Module 122 conducts an initial identification attempt. *Id.* at 5:3–5. If no identification is made, then content recognition system 124 performs a search using a larger portion of the sample, applying "known content recognition methods that identify content by extracting parameters from a media signal and applying an algorithm to those parameters to search for a content match." *Id.* at 5:43–46, 5:48–52. The

identification result is passed to ID result module 125, which in turn passes the result to play stream generator 126, which generates a raw play stream relating a sequence of samples to content identification results. *Id.* 5:39–43, 5:46–48, 6:24–27, 8:13–15, Fig. 2 (step 207), Fig. 4 (illustrating raw play stream 410). The raw play stream is then processed by play stream scrubber 127 that uses sequence data processing module 128 to generate a clean play stream and clean play list, which can then be used by measurement analysis module 129 and report generator 130. *Id.* at 6:27–37, 8:13–32, Fig. 2 (steps 209–212).

The method then "attempts to identify the channel by searching known channel data to find an apparent content sequence match to the play list" (step 211). Ex. 1001, 7:21–25, 8:21–23. "If step 211 successfully identifies the channel, information such as content sequence data for the identified channel may be used by step 212 to further scrub or rescrub the play stream." Ex. 1001, 8:29–32.

D. Illustrative Claim

Petitioner challenges claims 1–13 of the '849 patent, of which claims 1, 6, and 10 are independent. Claim 1 is illustrative of the claimed subject matter and is reproduced below:

> 1[P] A media measurement method comprising:
>
> [1.1] using one or more computers to generate a play stream of content identification results corresponding to a sequence of data samples, the data samples comprising representations of video data captured at a media monitoring device,
>
> [1.2] wherein content identifiers of the play stream's content identification results are obtained by using

corresponding data samples to search a computerized database of known content; and

[1.3] in response to obtaining the content identifiers, using one or more computers to utilize a sequential order of at least two different obtained content identifiers in the play stream to identify a channel corresponding to the data samples,

[1.4] the at least two different obtained content identifiers identifying different media content items; and

[1.5] using one or more computers to utilize an identified channel corresponding to the data samples to generate a media measurement report.

Ex. 1001, 15:14–32 (bracketed designations added). Independent claims 6 and 10 are nearly identical to claim 1, except claim 6 is directed to a "computer program" and claim 10 is directed to a "computer system." *Id.* at 15:50–6:9, 16:24–45.

E. Asserted Challenges and Evidence

Petitioner asserts the following challenges to patentability.

Claims Challenged	35 U.S.C.[1] §	Reference(s)/Basis
1, 5, 6, 9, 10, 13	103(a)	Wang777[2], Wang060[3]

[1] The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) ("AIA") amended 35 U.S.C. § 103 with an effective date of March 16, 2013. Because the '849 patent issued on an application filed before March 16, 2013, we refer to the pre-AIA version of § 103.

[2] U.S. Patent Application Publication No. US 2007/0143777 A1, published June 21, 2007, filed February 18, 2005 ("Wang777") (Ex. 1005).

[3] U.S. Patent Application Publication No. US 2002/0083060 A1, published June 27, 2002 ("Wang060") (Ex. 1006).

Claims Challenged	35 U.S.C.[1] §	Reference(s)/Basis
2–4, 7, 8, 11, 12	103(a)	Wang777, Wang060, Herley[4], Seet[5]
1–13	103(a)	Pitman[6], Schrempp[7], Wells[8]

Pet. 3. Petitioner submits the Declaration of Samuel H. Russ, Ph.D. Ex. 1003. Patent Owner submits the Declaration of William Leo Hoarty. Ex. 2001.

III. ANALYSIS

Petitioner raises several challenges to the patentability of the claims issued in the '849 patent. Pet. 40–103. Patent Owner contends that 35 U.S.C. § 325(d) applies to this case and that we should discretionarily deny institution. Prelim. Resp. 7–19. Patent Owner also asserts that Petitioner's challenges are deficient under § 314(a); in particular, Patent Owner disputes the sufficiency of Petitioner's evidence to show the prior art discloses or suggests claim elements 1.3, 6.3, and 10.3 of the independent claims. *Id.* at 20–62. Although Patent Owner's arguments applying § 325(d) and *Advanced Bionics,*

[4] U.S. Patent Application Publication No. US 2004/0260682 A1, published December 23, 2004 ("Herley") (Ex. 1011).

[5] U.S. Patent Application Publication No. US 2005/0193016 A1, published September 1, 2005, filed February 17, 2005 ("Seet") (Ex. 1012).

[6] U.S. Patent Application Publication No. US 2002/0116195 A1, published August 22, 2002 ("Pitman") (Ex. 1013).

[7] U.S. Patent Application Publication No. US 2003/0018709 A1, published January 23, 2003 ("Schrempp") (Ex. 1014).

[8] U.S. Patent Application Publication No. US 2003/0086341 A1, published May 8, 2003 ("Wells") (Ex. 1015).

LLC v. Med-El Electromedizinishe Geräte GmbH, IPR2019-01469, Paper 6, (PTAB Feb. 13, 2020) (precedential) are sound, we decline to exercise our discretion. Nevertheless, as discussed below, our merits analysis also leads to denial of the Petition because the cited evidence fails to persuade us that Petitioner is reasonably likely to prevail on any claim challenged.

A. Legal Standards

In an *inter partes* review, "the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable." *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016); *see also* 35 U.S.C. § 312(a)(3) (requiring *inter partes* review petitions to identify "with particularity . . . the evidence that supports the grounds for the challenge to each claim"); 37 C.F.R. § 42.104(b) (requiring a petition for *inter partes* review to identify how the challenged claim is to be construed and where each element of the claim is found in the prior art relied upon).

A patent claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved based on 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 presented, objective evidence of

nonobviousness, i.e., secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

Additionally, the obviousness inquiry typically requires an analysis of "whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue." *KSR*, 550 U.S. at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (requiring "articulated reasoning with some rational underpinning to support the legal conclusion of obviousness")). Petitioner cannot satisfy its burden of proving obviousness by employing "mere conclusory statements," but "must instead articulate specific reasoning, based on evidence of record, to support the legal conclusion of obviousness." *In re Magnum Oil Tools Int'l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016).

B. Level of Ordinary Skill in the Art

Petitioner contends that a person of ordinary skill in the art ("skilled artisan") would have had "a bachelor's degree in electrical engineering, computer engineering, computer science, or equivalent degree with at least two years of relevant industry experience, including in digital media content delivery." Pet. 3 (citing Ex. 1003 ¶ 31).

Patent Owner argues that Petitioner's definition of a skilled artisan is "unduly narrow" because it excludes persons having relevant industry experience, but no "formal degree." Prelim. Resp. 5–6 (citing Ex. 2001 ¶¶ 46–48). Patent Owner asserts that its declarant, Mr. Hoarty, qualifies as a skilled artisan despite lacking a formal degree. *Id.* at 6 (citing Ex. 2001 ¶ 50). Patent Owner

also criticizes Petitioner's definition for failing to require industry experience designing and implementing automated content recognition ("ACR") systems. *Id.*

We agree with Patent Owner that a person can qualify as a skilled artisan based on relevant industry experience in lieu of a formal degree. We also agree that ACR systems are relevant to the subject matter of the '849 patent. We disagree, however, that industry experience with ACR systems is required to qualify as a skilled artisan. The '849 patent describes a media usage monitoring and measurement method that relies on "known content recognition methods," including known ACR. Ex. 1001, code (54), 5:48–54. The claimed invention relates to analyzing sample sequence data to enhance content identification and to establish channel identification. *Id.* at code (57), 15:14–32 (claim 1). The '849 patent relies upon known ACR systems, but does not claim a new method of content recognition such that industry experience designing or implementing ACR systems is required. We accept that such experience may assist in providing relevant industry experience. For these reasons, we determine that a skilled artisan would have had a bachelor's degree in electrical engineering, computer engineering, computer science, or an equivalent degree, with two years of relevant industry experience in digital media content delivery or designing or implementing ACR systems. A person may qualify as a skilled artisan based on more than two years of relevant industry experience in lieu of a bachelor's degree.

Based on the declarants' qualifications and the level of ordinary skill in the art articulated above, we accept both Dr. Russ and

Mr. Hoarty as qualified experts for this Decision. Ex. 1003 ¶¶ 8–14; Ex. 2001 ¶¶ 50–51; *see Kyocera Senco Indus. Tools Inc. v. Int'l Trade Comm'n*, 22 F.4th 1369, 1376–77 (Fed. Cir. 2022) ("To offer expert testimony from the perspective of a skilled artisan in a patent case—like for claim construction, validity, or infringement—a witness must at least have ordinary skill in the art. Without that skill, the witness' opinions are neither relevant nor reliable.").

C. Claim Construction

In an *inter partes* review, we apply the same claim construction standard as would be used by a district court to construe a claim in a civil action involving the validity or infringement of a patent. 37 C.F.R. § 42.100(b). Under that standard, claim terms are given their ordinary and customary meaning, as would have been understood by a POSA at the time of the invention, in light of the language of the claims, the specification, and the prosecution history of record. *Id.*; *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–19 (Fed. Cir. 2005) (en banc); *Thorner v. Sony Comput. Entm't Am. LLC*, 669 F.3d 1362, 1365–66 (Fed. Cir. 2012).

Petitioner contends that "none of the claim terms require explicit constructions" and "all claim terms have been given their plain and ordinary meaning, in the context of the '849 patent specification, under the *Phillips* standard." Pet. 19. Patent Owner does not dispute this contention (*see generally* Prelim. Resp.) and its declarant, Mr. Hoarty, states that he "applied the plain and ordinary meaning of all claim terms at issue" (Ex. 2001 ¶ 52).

"The Board is required to construe 'only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.'" *Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (quoting *Vivid Techs., Inc. v. Am. Sci. Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)). Here, both parties rely on the plain and ordinary meaning for all of the terms used in the claims challenged in the Petition and neither party suggests a particular meaning beyond what is clearly conveyed by the claim terms in the context of the '849 patent. Therefore, we need not construe expressly any of the claim terms.

D. Petitioner's First Challenge

Petitioner contends that the recited subject matter of claims 1, 5, 6, 9, 10, and 13 is unpatentable over Wang777 and Wang060. Pet. 3, 40–62. Patent Owner disputes this contention because the evidence relied upon by Petitioner as disclosing or suggesting "utilize [or utilizing] a sequential order of at least two different obtained content identifiers in the play stream to identify a channel corresponding to the data samples" (as recited in claim elements 1.3, 6.3, and 10.3) is deficient, as well as, dispositive. Prelim. Resp. 35–43. Because we agree Patent Owner has raised a dispositive issue for this challenge, we focus our analysis accordingly. *Beloit Corp. v. Valmet Oy*, 742 F.2d 1421, 1423 (Fed. Cir. 1984) (holding that once a dispositive issue is decided, there is no need to decide other potentially dispositive issues). And because Petitioner relies exclusively on Wang777 for the above limitation (Pet. 52–56, 58 (indicating that the same arguments and evidence for element 1.3

apply to elements 6.3 and 10.3)), we begin our analysis with an overview of Wang777.

1. Wang777 (Ex. 1005)

Wang777 "generally relates to identifying a source of transmitted content, and more particularly, to matching audio or media file samples to a broadcast source from which the sample was transmitted." Ex. 1005 ¶ 2. More specifically, Wang777 explains that "[i]n the field of content identification, it may be desirable to identify not only content, but also a source (e.g., channel, stream, or station) of a broadcast transmission. For example, it may be desirable to detect from a free-field audio sample of a radio broadcast which radio station a user is listening to, as well as to what song the user is listening." Ex. 1005 ¶ 18.

Wang777 describes a "system for identifying a broadcast source of desired content," which includes an audio sampling device 102 used to "record an audio sample broadcast or transmitted by a broadcaster 104." Ex. 1005 ¶ 20. To identify a broadcast source, Wang777 follows the process shown in Figure 4, reproduced below.

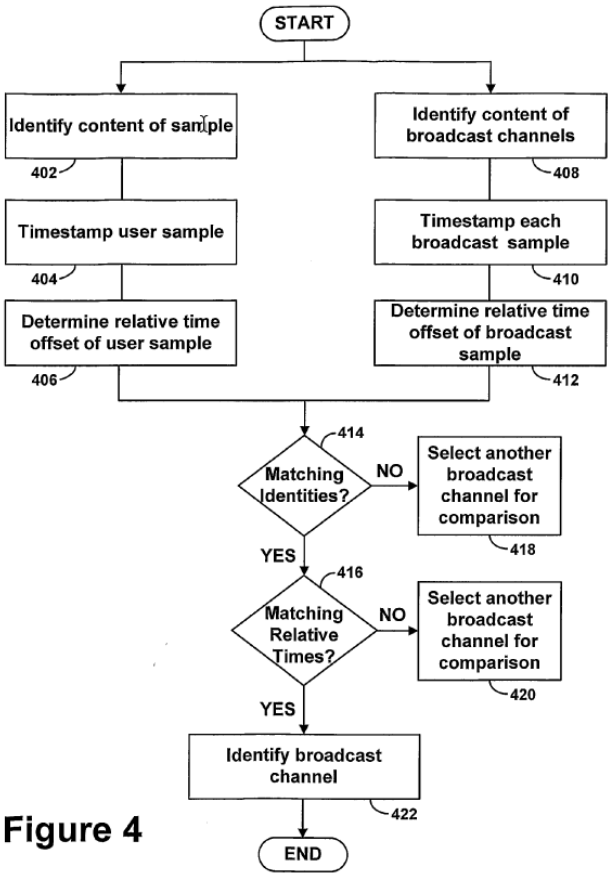

Figure 4

Figure 4 discloses a flowchart for identifying a broadcast source that performs timestamped identification. *Id.* ¶¶ 16, 47.

"Initially, a user audio sample collected by the user is identified using a content identification means, as shown at block 402." *Id.* ¶ 47. "While the user audio sample is collected, a user sample timestamp (UST) is taken to mark the beginning time of the audio sample based on a standard reference clock, as shown at block 404." *Id.* Using known identification methods also "produces an accurate relative time offset between a beginning of the identified content file from the database and a beginning of the audio sample being analyzed . . . [and] a user sample relative time offset (USRTO) and a user

sample identity are noted as a result of identifying the user audio sample, as shown at block 406." *Id.*

"At the same time, broadcast audio samples are taken periodically . . . from each of at least one broadcast channel being monitored by a monitoring station; and similarly, a content identification step is performed for each broadcast channel, as shown at block 408." *Id.* ¶ 49. "For each broadcast sample, a broadcast sample timestamp (BST) is also taken to mark the beginning of each sample based on the standard reference clock, as shown at block 410." *Id.* ¶ 50. "Further, a relative time offset between the beginning of the identified content file from the database and the beginning of the broadcast sample being analyzed is computed" and "a broadcast sample relative time offset (BSRTO) and a broadcast sample identity is noted as a result of identifying each broadcast audio sample, as shown at block 412." *Id.*

"To identify a broadcast source, the user audio sample and broadcast audio samples are compared to first identify matching sample identities, as shown at block 414, and then to identify matching 'relative times' as shown at block 416." *Id.* ¶ 51. "If no matches are found, another broadcast channel is selected for comparison, as shown at blocks 418 and 420," and this process continues until a match is found, which is reported back to the user, as shown at block 422. *Id.* "Thus, matching the sample identities ensures that the same song, for example, is being compared. Then, matching the relative times translates the samples into equivalent time frames, and enables an exact match to be made." *Id.* ¶ 53.

2. Claim Elements 1.3, 6.3, and 10.3

Claim elements 1.3, 6.3, and 10.3 each recite: "utilize [or utilizing] a sequential order of at least two different obtained content identifiers in the play stream to identify a channel corresponding to the data samples." Ex. 1001, 14:47–50, 15:13–16, 16:13–16. Petitioner contends

> in response to obtaining the user sample identities (content identifiers), Wang777 alone or in view of Wang060[9] teaches using one or more computers to utilize user sample identity[n] and user sample identity[n+1] (a sequential order of at least two different obtained content identifiers) in the play stream, . . . to identify a broadcast source (channel) corresponding to the data samples.

Pet. 56 (citing Ex. 1003 ¶¶ 142–144). To support this contention, Petitioner directs us to Wang777's discussion regarding source

[9] We note that Petitioner's entire analysis of claim elements 1.3, 6.3, and 10.3 omits any application of Wang060; instead, Petitioner and its expert rely solely on Wang777 for supporting evidence that the claimed subject matter was known in the prior art. *See* Pet. 40–42, 52–56, 58; Ex. 1003 ¶¶ 136–142. Without any analysis from Petitioner showing how it contends Wang060 applies to claim elements 1.3, 6.3, and 10.3, we have no way of understanding the "view" Petitioner contends Wang060 provides. "Failure to prove the matter as required by the applicable standards means that the party with the burden of persuasion loses on that point—thus, if the fact trier of the issue is left uncertain, the party with the burden loses." *Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1327 (Fed. Cir. 2008). Petitioner provides nothing more than a "skeletal argument" for Wang060 disclosing any part of claim elements 1.3, 6.3, and 10.3, which is insufficient to satisfy the particularity requirement of 35 U.S.C. § 312(a)(3). *See SmithKline Beecham Corp. v. Apotex Corp.*, 439 F.3d 1312, 1320 (Fed. Cir. 2006).

identification via time-stamped identity. *Id.* at 52–56 (citing Ex. 1005 ¶¶ 4, 51–56, 68–70, 72, Figs. 4, 5; Ex. 1003 ¶¶ 138–144).

Petitioner highlights that Wang777 teaches identifying a broadcast source/channel corresponding to an audio data sample. *Id.* at 53. And Petitioner points to Wang777's description of the process for making that identification, which entails capturing and time-stamping an audio data sample and matching the sample identity with its associated time to a broadcast channel that has broadcasted audio data with the same identity at the same associated time. *Id.* at 53–56 (Ex. 1005 ¶¶ 51–52, 68–70, Figs. 4, 5; Ex. 1003 ¶¶ 138–144). Petitioner argues that the description of Wang777's process "focus[es] on identifying the source/channel for a single audio data sample," but contends that "Wang777 further discloses identifying a source/channel corresponding to the audio data samples using a sequential order of at least two different obtained content identifiers in the play stream." *Id.* at 55. For this contention, Petitioner and its declarant depend entirely on paragraph 72 of Wang777, which states:

> In another embodiment, to further verify that the user is actually listening to a given broadcast channel, and that it is not just a coincidence (such as a user taking a recording from a CD player), user samples can be taken over a longer period of time, e.g., longer than a typical audio program, such as over a transition between audio programs on the same channel. If a match that is considered to be correct is actually the correct channel, a content alignment should be continuously maintained between Song transitions. An exception can occur when the user records an audio sample while changing broadcast channels. However, continuity of identity over a program transition may be an indicator that the correct broadcast channel is being tracked. Thus, sample identity (e.g., Equation (1)) can be tracked, and user sample identity changes

> can also be tracked. For example, sample identities at multiple time periods can be tracked (as shown below in Equations 3-5), and if a first sample identity does not equal a second sample identity from a second time period (as shown below in Equation 5), then the continuity or transition between songs has been tracked. This can provide further confidence that a correct match has been made (e.g., when both the user and the broadcast Sources change synchronously).
>
> User sample identity[n]=Broadcast sample identity[n] Equation (3)
>
> User sample identity[n+1]=Broadcast sample identity[n+1] Equation (4)
>
> User sample identity[n]≠User sample identity[n+1] Equation (5)
>
> where [n] is the nth sample in time.

Ex. 1005 ¶ 72; *see also* Pet. 55–56 (citing Ex. 1005 ¶ 72; Ex. 1003 ¶¶ 139–142).

More particularly, Petitioner calls out Wang777's teaching in the above paragraph about content identifiers being obtained "over a period of time (e.g., longer than a typical audio program, such as over a transition between audio programs on the same channel)" to verify a given channel because "[i]f the correct channel is identified, the content identifiers (e.g., user sample identity[n] and user sample identity[n+1]) will match even across a transition between audio programs (e.g., a transition from one song to another)." Pet. 55–56 (citing Ex. 1005 ¶ 72; Ex. 1003 ¶ 141). Petitioner notes Wang777 teaches that this process may "provide further confidence that a correct match has been made (e.g., when both the user and the broadcast sources change synchronously)." *Id.* at 56.

Patent Owner disputes the sufficiency of Petitioner's evidence from Wang777 to show the use of "a sequential order of at least two

different obtained content identifiers in the play stream to identify a channel corresponding to the data samples," as recited in claim elements 1.3, 6.3, and 10.3. Prelim. Resp. 35–43 (citing Ex. 1001, 8:9–22, 9:52–53, 9:61–63, Fig. 4; Ex. 1005 ¶¶ 51–56, 72–73; Ex. 2001 ¶¶ 77–92). Patent Owner concedes that Wang777 discloses a process for identifying a channel using an audio data sample by: "(1) comparing an identity within a listener's audio sample to identities of a broadcast sample; and (2) identifying matching 'relative times,' which simply refers to identifying a time alignment between the sample identities." *Id.* at 35–36 (citing Ex. 1005 ¶¶ 51–52; Ex. 2001 ¶¶ 79–80); *see id.* at 35 (citing Ex. 1005 ¶¶ 52–56; Ex. 2001 ¶ 80). And Patent Owner notes Wang777 states that, with that two-step process to identify a broadcast channel, "the probability of misidentification is low" because the probability of the audio sample satisfying both conditions without being from the matched broadcast channel "is fairly small." *Id.* at 37 (citing Ex. 1005 ¶ 55). Nevertheless, Patent Owner argues this two-step process performed on a single audio data sample fails to teach or suggest *two different content identifiers to identify a channel* corresponding to the data samples and, according to Patent Owner, Petitioner "mischaracterizes Wang777's transition-tracking feature" that is described in paragraph 72 to fill the void. *Id.*

Patent Owner asserts that the transition-tracking feature in Wang777's paragraph 72 "only applie[s] **after** a channel has already been identified and only to determine whether a transition in the user sample aligns with a transition in the broadcast sample." Prelim. Resp. 35–36 (citing Ex. 2001 ¶ 78). Patent Owner points to

Wang777's characterization of the process described in paragraph 72 as providing "**further verif[ication]** that the user is actually listening to a **given** broadcast channel" and asserts that a skilled artisan "would understand that the 'given broadcast channel' is the channel identified pursuant to [the] earlier [two-step process performed on a single audio data sample]." *Id.* at 35, 38–39 (citing Ex. 1005 ¶ 72; Ex. 2001 ¶¶ 81–83). In Patent Owner's words,

> while th[e] transition-tracking feature [in Wang777's paragraph 72] does in fact compare different identities (e.g., song81 and song22) in a longer user sample (e.g., a sample long enough to obtain different identities) against different identities (e.g., song81 and song22 over the same period of time) of a broadcast sample(s), it does not do so to *identify a channel*. Rather, the channel was previously identified pursuant to [the two-step process performed on a single audio data sample] and this feature is simply tracking song transitions to determine whether the listener changed channels.

Id. at 39–40 (citing Ex. 1005 ¶¶ 51–61, 72; Ex. 2007 ¶¶ 81–83, 85). This understanding is confirmed by subsequent paragraph 73, Patent Owner asserts, because paragraph 73 makes clear that, if it is determined that a user has changed channels using the process Wang777's paragraph 72 discloses, then a search for a new broadcast channel match must be performed and, thus, Wang does not suggest that the transition-tracking feature is capable of identifying a correct channel. *Id.* at 40, 43 (citing Ex. 1005 ¶ 73 ("If it is determined that a user has changed channels, the monitoring station 514 **can then search for an identi[t]y match** for the new identity of the audio sample to verify the new broadcast source to which the user is listening"); Ex. 2001 ¶¶ 86, 92).

Having thoroughly considered all of the evidence and arguments presented by both parties, we find Petitioner's evidence to be insufficient to carry its burden of showing Wang777 discloses or suggests claim elements 1.3, 6.3, and 10.3. More specifically, we find that Petitioner does not present persuasive evidence that Wang777 discloses or suggests the use of "a sequential order of at least two different obtained content identifiers in the play stream to identify a channel corresponding to the data samples." Furthermore, Petitioner's declarant, Dr. Russ, adds little, if any, persuasive value because his testimony is almost indistinguishable from Petitioner's argument in the Petition and, as such, incorporates the same flaws. *Compare* Pet. 52–56 *with* Ex. 1003 ¶¶ 137–144.

The reason Petitioner's reliance on paragraph 72 of Wang777 is unavailing is because we are not persuaded that it discloses or suggests using two different content identifiers *to identify a channel*. When viewing the cited portions of that paragraph in the proper context of what Wang777 teaches as a whole (as we are required to do), we are not persuaded a skilled artisan would understand that the disclosed additional and different content identifiers in the alleged play stream are being used to identify a channel.

Turning first to where there is agreement between the parties, Wang777 describes identifying a broadcast source "by performing a timestamped identification." Ex. 1005 ¶ 47. Wang777 describes this identification process as depending on two equations: Equation (1)—(User sample identity) = (Broadcast sample identity); Equation (2)—(User Sample Relative Time Offset) + (Reference Time - User Sample Timestamp) = (Broadcast Sample Relative Time Offset) + (Reference

Time – Broadcast Same Timestamp). *See id.* ¶¶ 47–52. Wang777 teaches that "matching the sample identities ensures that the same song, for example, is being compared" and "[t]hen, matching the relative times translates the samples into equivalent time frames, *and enables* an exact match to be made." *Id.* ¶ 53 (emphasis added). Wang777 also teaches that "[t]he probability of misidentification is low, since the probability that a user sample is taken from the wrong broadcast channel or non-monitored audio source (such as a CD player) and happens to satisfy Equations (1) *and* (2) is fairly small." *Id.* ¶ 55 (emphasis added). And still further, Wang777 teaches a skilled artisan that

> [a] decision is thus made as to whether the user audio sample originated from a given broadcast source by noting whether Equations (1) *and* (2) *hold*. If a broadcast channel is found for which this holds then this broadcast channel is determined to be the channel to which the user is listening. This information is noted *and relayed to* the user or *a reporting means, which uses the information for some follow-on action*.

Id. ¶ 56 (emphasis added). What these portions of Wang777 make indisputably clear is that (1) a single audio data sample is used to identify a broadcast channel; (2) to identify a broadcast channel from an audio data sample there must be match between *both* the audio sample identities *and* their relative times; and (3) the information from the identification process may be used for follow-on actions.

Now turning to the heart of the dispute between the parties, we consider the follow-on action Wang777 describes in paragraph 72. Paragraph 72 teaches an embodiment that includes a process "to further verify that the user is actually listening to a given broadcast

channel, and that it is not just a coincidence." Ex. 1005 ¶ 72. We find that the use of "verify" and "a given broadcast channel" in that sentence, when viewed in the context of Wang777 as a whole, suggests the verification process detailed in paragraph 72 is a subsequent process applied after a broadcast channel has been identified using the two-step matching process applied to a single audio data sample. This understanding is consistent with Wang777's statement that the verification process "can provide **further confidence that a correct match has been made** (e.g., when both the user and the broadcast sources change synchronously)" because the referenced "correct match" that "has been made" refers to a broadcast channel match that the verification process was "given" to gain "confidence" in the validity of the match previous made. *Id.* (emphasis added). As Wang777 states, "[i]f a match that is considered to be correct is actually the correct channel, a content alignment should be continuously maintained between song transmissions." *Id.*

Petitioner contends that Wang777 "discloses identifying a source/channel corresponding to the audio data samples using a sequential order of at least two different obtained content identifiers in the play stream." Pet. 55 (citing Ex. 1005 ¶ 72). We disagree. The verification process in paragraph 72 uses samples taken over a period of time, and may include multiple different content identities, but Wang777 explains that those different content identities are only considered to evaluate continuity with an already identified broadcast channel. Ex. 1005 ¶ 72. This is problematic for Petitioner's challenge because element 1.3 expressly recites that the "different obtained

content identifiers" are used "to *identify* a channel corresponding to the data samples," rather than to *verify* an already identified channel. Ex. 1001, 14:47–50 (emphasis added). Petitioner has not established persuasively that using a different content identifier to *verify* a known channel is sufficient to disclose or suggest using the different content identifiers to *identify* a channel.

Furthermore, we agree with Patent Owner that paragraph 73 of Wang777 undermines Petitioner's reliance on the additional identifiers used in the verification process because Wang777 explains, when that process determines a given channel does not match a different content identifier, the system must still "search for an identi[t]y match for the new identity of the audio sample to verify the new broadcast source to which the user is listening." Ex. 1005 ¶ 73. Wang777 therefore suggests that the additional different content identifiers used with the verification process are, in fact, not *identifying* a channel corresponding to their data samples.

Thus, when considering what Wang777 teaches as a whole, a skilled artisan would recognize that the verification process Wang777 teaches does not identify a channel corresponding to the data samples. Wang777 never suggests that the verification process involves searching for or identifying a channel; instead, the verification process starts with a known channel, which was "given" to it by another process that used one content identifier to identify the channel, and the verification process evaluates the correctness of the channel to provide "confidence" a "correct match" has been made by the identification process. *See id.* ¶ 72.

3. Conclusion for Petitioner's First Challenge

For the above reasons, we determine that Petitioner's challenge to independent claims 1, 6, and 10 based on Wang777 and Wang060 does not meet the threshold for institution of an *inter partes* review. Petitioner's arguments and evidence for dependent claims 5, 9, and 13 do not remedy the deficiencies in Petitioner's showing for their respective parent claims (i.e., claims 1, 6, and 10). Accordingly, Petitioner has not demonstrated a reasonable likelihood of prevailing on its assertion that claims 1, 5, 6, 9, 10, and 13 are unpatentable over Wang777 and Wang060 under 35 U.S.C. § 103(a).

E. Petitioner's Second Challenge

Petitioner challenges dependent claims 2–4, 7, 8, 11, and 12 as unpatentable over Wang777, Wang060, Herley, and Seet. Pet. 3, 63–72. Patent Owner opposes. Prelim. Resp. 43.

Petitioner's combination of Wang777, Wang060, Herley, and Seet does not remedy the deficiencies in Petitioner's showing for independent claims 1, 6, and 10 as discussed above. Accordingly, Petitioner has not demonstrated a reasonable likelihood of prevailing on its assertion that claims 2–4, 7, 8, 11, and 12 are unpatentable over Wang777, Wang060, Herley, and Seet under 35 U.S.C. § 103(a).

F. Petitioner's Third Challenge

Petitioner contends that the recited subject matter of claims 1–13 is unpatentable over Pitman, Schrempp, and Wells. Pet. 3, 72–104. Patent Owner disputes this contention because the evidence relied upon by Petitioner to disclose or suggest "identify[ing] a channel corresponding to the data samples" (as recited in claim elements 1.3,

6.3, and 10.3) is deficient, as well as dispositive. Prelim. Resp. 43–46. Because we agree Patent Owner has raised a dispositive issue for this challenge, we again focus our analysis accordingly. And because Petitioner relies exclusively on Pitman[10] for the above portion of claim elements 1.3, 6.3, and 10.3 (Pet. 89–94 (indicating that the same arguments and evidence for element 1.3 apply to elements 6.3 and 10.3)), we begin our analysis with an overview of Pitman.

1. Pitman (Ex. 1013)

Pitman, entitled "System for Selling a Product Utilizing Audio Content Identification," is directed to a system for selling a product containing audio content in which the audio content is automatically

[10] We recognize that Petitioner's contention for element 1.3 also relies on Wells, but Wells is only cited to disclose the use of a sequential order of at least two different obtained content identifiers to identify a match. *See* Pet. 91–94 (citing Ex. 1015 ¶¶ 234–235, 259–264; Ex. 1003 ¶¶ 240–242). In other words, Petitioner is not relying on Wells to disclose "identifying a channel corresponding to the data sample"; instead, Petitioner relies solely on Pitman for that limitation and relies on Wells to show that modifying Pitman's alleged channel identification process to include a sequential order of at least two different obtained content identifiers would have been obvious. *See id.* Although Petitioner states "Wells teaches identifying a source by looking at content matches over time," Petitioner offers nothing to suggest Wells identifies a channel associated with the sourced audio data. *Id.* Without any analysis from Petitioner regarding how Wells contributes to what was known about identifying a channel (versus content) from data samples, we have no way of understanding how Petitioner contends Wells may disclose or suggest identifying a channel corresponding to the captured data samples. Thus, to the extent Petitioner contends Wells shows "identifying a channel corresponding to the data samples," we find only a "skeletal argument" for this contention, which is insufficient to preserve a claim. *SmithKline Beecham Corp.*, 439 F.3d at 1320.

identified. Ex. 1013, code (57), ¶ 3. Pitman describes a process to automatically identify audio content that includes the steps of: recording content, generating a signature/fingerprint, comparing the signature/fingerprint to signatures/fingerprints in a database of known content, and, if the content is matched, identifying the matching content (e.g., the artist and title of a song) along with providing one or more products containing (or relating to) the matching content to a user. *Id.* ¶¶ 30–36.

2. Claim Elements 1.3, 6.3, and 10.3

Claim elements 1.3, 6.3, and 10.3 each recite: "utilize [or utilizing] a sequential order of at least two different obtained content identifiers in the play stream to identify a channel corresponding to the data samples." Ex. 1001, 14:47–50, 15:13–16, 16:13–16. Our focus here, however, is on the "identify a channel corresponding to the data samples" portion of that element. And for that limitation, Petitioner contends that Pitman "teaches identifying a channel (e.g., an album/movie) corresponding to the data samples (segments of audio or video)." Pet. 91. Supporting this contention, Petitioner highlights the following teachings from Pitman.

In general terms, Pitman discloses a method for "allow[ing] a listener to automatically identify audio content so that a product containing the audio content can be purchased." Pet. 80 (citing Ex. 1013 ¶¶ 3, 6, 71, 73, 76, claims 1–15; Ex. 1003 ¶¶ 223–224). To identify the audio content provided to a listener, Pitman analyzes samples of the received audio data to establish a set of keys (signatures/fingerprints). *Id.* at 89–90 (citing Ex. 1013 ¶¶ 30–36,

Figs. 2A, 3; Ex. 1003 ¶ 238). Those keys are compared to identifying information in a database, and, if a match is found, an identification of the audio content (e.g., the artist and title) is made. *Id.* Because a listener may enjoy the identified audio content and may want "to purchase a recording of the song or a product containing the song (e. g., an album or video)," Pitman uses the identified audio content to select one or more related products. *Id.* at 90 (citing Ex. 1013 ¶¶ 5, 30–31, 35). As an example, Pitman explains "if the audio content image is a portion of a song, the list displayed to the listener could include products such as a cassette single of the song, an album containing the song, a music video for the song, a concert video including a live performance of the song, a movie in which the song appears, and a movie soundtrack including the song." *Id.* at 76 (citing Ex. 1013 ¶¶ 5, 30–31, 35, 71, Fig. 3; Ex. 1003 ¶ 239).

Patent Owner asserts that Petitioner's evidence is deficient because "Pitman does not *identify a channel* as claimed, and Petitioner's contrary assertion is premised on ignoring other requirements associated with that claim language—namely that the identified channel *correspond[] to the data samples*." Prelim. Resp. 44. Patent Owner asserts that Pitman's identification of known products associated with the content identified (e.g., a song) from a data sample is fundamentally different than identifying the channel corresponding to the data samples that were actually received by a listener. *Id.* at 44–45 (citing Ex. 2001 ¶¶ 93–96). Pitman, Patent Owner states, "does not care what channel the identified content was played on when the listener heard it—it only cares about providing the listener with all products associated with the identified content so that

the listener has as many purchase options as possible as a way to listen to the song again." *Id.* at 45 (citing Ex. 2001 ¶ 96). This approach by Pitman, according to Patent Owner, may identify a channel that a listener *could* use sometime in the future to listen to the identified content, but it does not identify the channel corresponding to the data sample that was actually captured by the media monitoring device and used to derive the content identification. *Id.* at 45–46 (citing Ex. 2001 ¶¶ 97–98).

Having thoroughly considered all of the evidence and arguments presented by both parties, we find Petitioner's evidence to be insufficient to carry its burden of showing that Pitman discloses or suggests "identify a channel corresponding to the data samples." More specifically, we find the supporting evidence from Pitman to be unpersuasive of Petitioner's conclusion that Pitman "teaches identifying a channel (e.g., an album/movie) corresponding to the data samples (segments of audio or video)." Pet. 91. Furthermore, Petitioner's declarant, Dr. Russ, adds little, if any, persuasive value because his testimony here again is mostly duplicative of Petitioner's argument in the Petition and, as such, incorporates the same flaws. *Compare* Pet. 89–94 *with* Ex. 1003 ¶¶ 237–243.

First, we note that the claims expressly define a data sample as "comprising representations of video data captured at a media monitoring device" (Ex. 1001, 15:17–19, 15:56–57, 16:32–33). Petitioner's evidence is deficient because the album identified in Pitman, which Petitioner alleges is a channel corresponding to the data sample, does not actually have any connection to a communication path of Pitman's alleged data sample, which

represents audio data captured at a media monitoring device. As Pitman clearly states, the identified album is simply a product that a user may purchase, rather than a means of communication corresponding to the data sample used to identify the album. Ex. 1013 ¶ 6. And while it may be true that an album generally *could* form a part of a communication path that corresponds to a data sample, Petitioner, and its expert, have provided no basis here to find that Pitman (alone or in combination with Schrempp or Wells) teaches or suggests that Pitman's album forms a part of the communication path corresponding to the data sample that was used to select the album. Nor does Petitioner, or its expert, provide any reasonable basis for us to find that Pitman even suggests identifying a channel corresponding to the data sample; on the contrary, the goal for using a data sample in Pitman is to find something that a listener may want to purchase (e.g., an album that has a particular song) and a channel corresponding to the data sample is no such thing because it is necessarily something the listener is able to access already.

We disagree with Petitioner's reasoning that identifying an album corresponding to a data sample, as disclosed in Pitman, suggests identifying a channel corresponding to the data sample, as claimed. Pet. 91. A skilled artisan would recognize that "a channel corresponding to the data sample," in the context of the independent claims here, is a communication path or source for the captured audio data that forms the data sample. Our understanding is confirmed by the '849 patent. For example, the '849 patent establishes that, in the context of media measurement systems, channels are communication paths that listeners utilize to consume audio data and "although

'channel' identification in a traditional media measurement system may sometimes be limited to radio or television broadcast station" the invention seeks to address the need "to track usage of media across several types of media delivery vehicles including radio, television, CD, DVD, computer download, portable media players (e.g. MP3 players, ipod), and other vehicles." Ex. 1001, 1:14–26. Additionally, the '849 patent explains that "characteristics of the audio data are analyzed . . . to identify *the source of transmission or storage of the media played by an individual* based on audio characteristics of that signal." *Id.* at 7:14–17 (emphasis added). Petitioner's alleged channel from Pitman, however, does not have any connection to the source of transmission or storage of the media played by a listener.

3. Conclusion for Petitioner's Third Challenge

For these reasons, we determine that Petitioner's challenge to independent claims 1, 6, and 10 based on Pitman, Schrempp, and Wells does not meet the threshold for institution of an *inter partes* review. Furthermore, Petitioner's arguments and evidence for dependent claims 2–5, 7–9, and 11–13 does not remedy the deficiencies in Petitioner's showing for their respective parent claims (i.e., claims 1, 6, and 10). Accordingly, Petitioner has not demonstrated a reasonable likelihood of prevailing on its assertion that claims 1–13 are unpatentable over Pitman, Schrempp, and Wells under 35 U.S.C. § 103(a).

IV. ORDER

It is ORDERED that institution of an *inter partes* review is *denied*.

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