

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SNAP INC.,
Petitioner,

v.

PLAYVUU, INC.,
Patent Owner.

IPR2023-00848
Patent 10,931,911 B2

Before KEN B. BARRETT, BARBARA A. PARVIS, and
TERRENCE W. McMILLIN, *Administrative Patent Judges*.

PARVIS, *Administrative Patent Judge*.

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

I. INTRODUCTION

Snap Inc. (“Petitioner”) filed a Petition (Paper 2 (“Pet.”)) requesting *inter partes* review of claims 1–11 (“challenged claims”) of U.S. Patent No. 10,931,911 B2 (Ex. 1001, “the ’911 Patent”). Playvuu, Inc. (“Patent

Owner”) filed a Preliminary Response. Paper 7 (“Prelim. Resp.”). With our authorization, Petitioner filed a Preliminary Reply to Patent Owner’s Preliminary Response (Paper 9, “Prelim. Reply”) and Patent Owner filed a Preliminary Sur-reply (Paper 11, “Prelim. Sur-reply”).

We have authority to determine whether to institute review under 35 U.S.C. § 314 and 37 C.F.R. § 42.4. We may institute an *inter partes* review if “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).

Upon consideration of the contentions and the evidence of record at this preliminary stage, we conclude Petitioner establishes a reasonable likelihood of prevailing in demonstrating the unpatentability of the challenged claims of the ’911 patent. Accordingly, we grant Petitioner’s request and institute an *inter partes* review of all challenged claims of the ’911 patent and with respect to all grounds set forth in the Petition.

II. BACKGROUND

A. *Real Parties-in-Interest*

Petitioner identifies itself, Snap Inc., as the real party-in-interest. Pet. 88. Patent Owner names itself, Playvuu, Inc., as the real party-in-interest. Paper 6, 1.

B. *Related Matters*

Each party identifies a judicial matter that would affect, or be affected by, a decision in this proceeding. In particular, the parties inform us that the ’911 patent is asserted in the following district court proceeding: *Playvuu*,

Inc. v. Snap Inc., No. 2:22-cv-06019-GW-PD (C.D. Cal.). Pet. 88; Paper 6,
1.

C. The '911 Patent

The '911 patent is titled “Creating and Disseminating of User Generated Content Over a Network.” Ex. 1001, code (54). The '911 patent describes systems and methods for enabling a user to generate content over a network. *Id.* at 3:48–53. An exemplary system is illustrated in Figure 1.

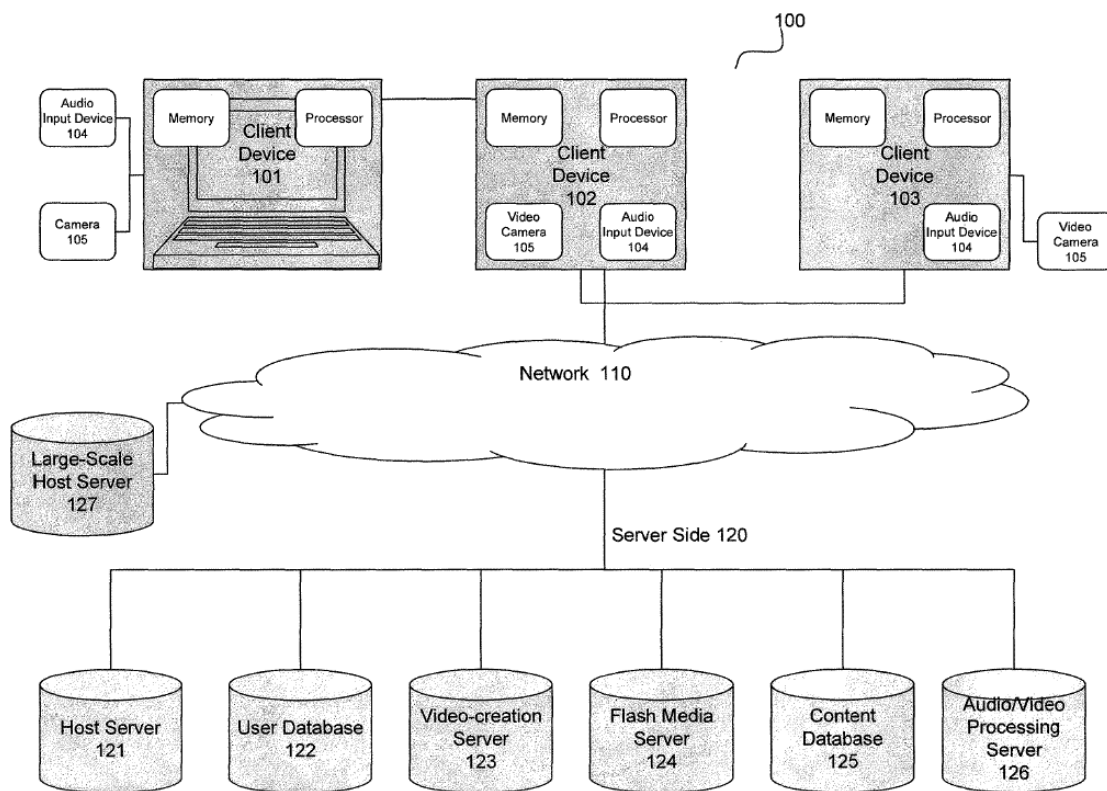


FIG. 1

Figure 1, above, illustrates a block diagram of system 100 having client devices 101–103, network 110, and server side 120. *Id.* at 5:12–15, 6:18–25, Fig. 1. Client devices 101–103 are operated by a user and can be a server desktop, a desktop computer, or a mobile computing device. *Id.* at 5:14–22. Client devices 101–103 are coupled to network 110 and communicate with remote servers on server-side 120. *Id.* at 5:41–42, 6:18–25.

Server-side 120 is illustrated in more detail in Figure 2 of the '911 patent. *Id.* at 1:54–57, 7:59–61.

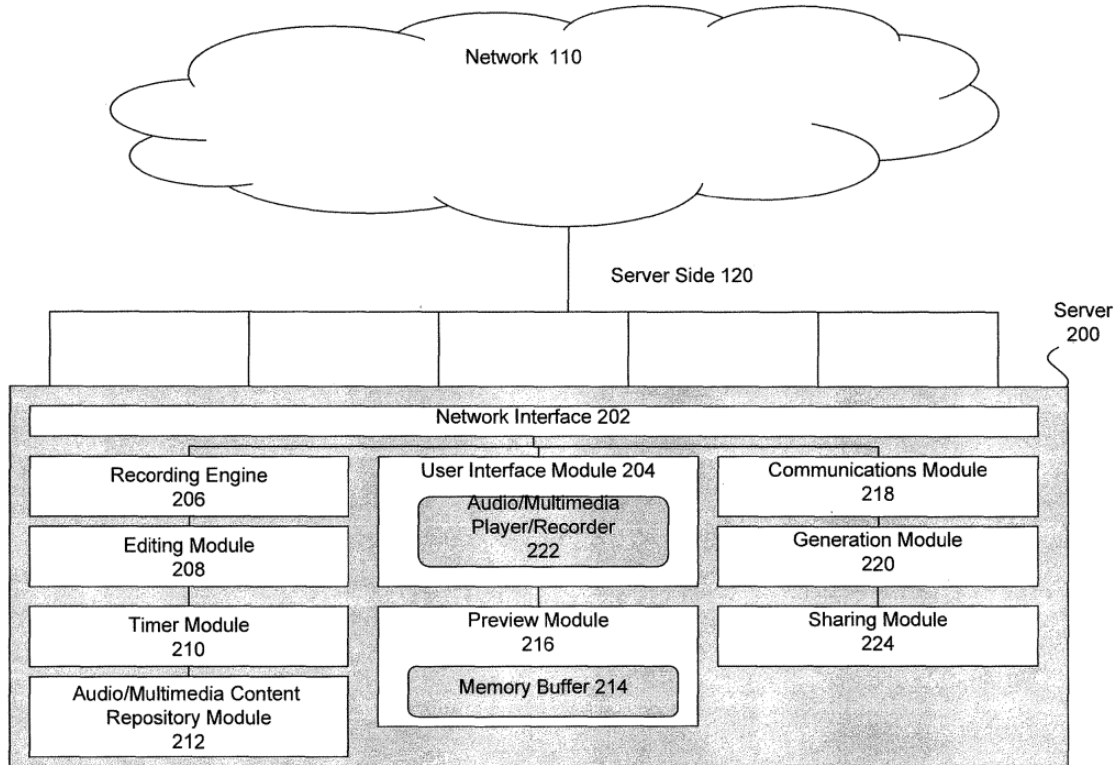


FIG. 2

Figure 2, above, illustrates a block diagram of a system of server 200 on server side 120 for facilitating generation of audio and video content generation over a network. *Id.* at 7:59–63, Fig. 2. As shown in Figure 2, server 200 includes communications module 218 (*id.* at 7:61–62, Fig. 2), recording engine 206 (*id.* at 8:36–37, Fig. 2), preview module 216 (*id.* at 9:28–29, Fig. 2), generation module 220 (*id.* at 10:9–10, Fig. 2), editing module 208 (*id.* at 10:30–32, Fig. 2), audio/multimedia content repository module 212 (*id.* at 10:41–43, Fig. 2), user interface module 204 (*id.* at 11:7–8, Fig. 2), and sharing module 224 (*id.* at 12:36–37, Fig. 2).

Communications module 218 receives communications from network 110 (*id.* at 8:4–6) and manages “one-way, two-way, and/or multi-way communication sessions over a plurality of communications protocols.” *Id.* at 7:61–66. Recording engine 206 is a “combination of hardware components and/or software agents able to record multimedia (e.g., audio, text, image, and/or video) content for example, over a network connection (e.g., Internet).” *Id.* at 8:37–41. Preview module 216 is a “combination of hardware components and/or software agents able to perform playback of multimedia content such as playback of recorded content and/or simultaneous playback of multiple pieces of multimedia content (e.g., audio, image, video, etc.).” *Id.* at 9:27–33.

Additionally, generation module 220 is a “combination of hardware components and/or software agents able to perform any additional processing procedures,” such as generating a “synchronized multimedia file from a compilation of individual audio and video files.” *Id.* at 10:10–17. Editing module 208 performs “audio processing including but not limited to noise reduction, fading-in, fading out, reverberation, etc.” and “video processing including, but not limited to, geometric conversions, color correction and saturation, digital compositing, de-mosaicing, white balance, noise reduction, segmenting, auto-exposure adjustment, de-interlacing, anti-flicker correction, filtering, etc.” *Id.* at 10:30–37. Audio/multimedia content repository module 212 is a “combination of hardware modules and/or software agents able to store, playback, and/or read audio-based and other multimedia data and content, in a variety of formats, including, but not limited to, mp3, mp4 . . . DVD, CD, Blu-Ray, HD-DVD.” *Id.* at 10:41–49.

Further, user interface module 204 is a “combination of hardware components and/or software agents able to generate, modify, and/or adjust

user interfaces,” and can provide a user interface for facilitating “multimedia content recording and playback over a network.” *Id.* at 11:8–10, 11:62–65. Sharing module 224 is a “combination of hardware components and/or software agents able to manage, track, modify, and/or enforce the privacy attributes” of user content. *Id.* at 12:36–42.

D. Illustrative Claim

Petitioner challenges claims 1–11 of the ’911 patent. Pet. 18. Claims 1, 10, and 11 are independent claims. Claims 2–9 depend directly from claim 1. Independent claim 1, reproduced below, is illustrative of the claimed subject matter.

1. [1a¹] A method for generating and sharing audio/video content to a social network, comprising:
 - [1b] initiating a content creation process in response to a request from a user;
 - [1c] prompting the user to record content;
 - [1d] prompting the user to select an audio composition from a list of compositions retrieved from a host server;
 - [1e] presenting the user with a record button;
 - [1f] presenting the user with a selection of visual media content for use as a background, wherein upon selecting an instance of pre-recorded visual media content from the selection, the user is presented with an interface to selectively edit the instance of pre-recorded visual media content;
 - [1i] providing simultaneous aural playback of the audio composition during a recording session, thereby permitting the user to hear the composition during recording;

¹ Herein we use Petitioner’s designations for the elements of claim 1. Pet. 33–72. Petitioner notes that the non-alphabetical nature of the designations is intentional. *Id.* at 49.

- [1j] generating recorded content based on the recording session by compositing video captured during the recording session with the instance of pre-recorded visual media content, such that the video captured during the recording session is selectively made transparent to reveal the instance of pre-recorded visual media content;
- [1l] displaying a preview of the recorded content to the user, wherein the preview of the recorded content enables the user to change the timing or latency of the recorded content to relative to the selected audio composition;
- [1m] selecting a privacy attribute for the recorded content;
- [1n] sending the recorded content to the host server, wherein the host server is configured to store multimedia content to facilitate access to other users according to the selected privacy attribute;
- [1o] receiving a request to publish the recorded content;
- [1r] in response to the request to publish, processing and encoding individual components of the recorded content to create a streamable video; and
- [1s] publishing the streamable video by copying the streamable video to a media server.

Ex. 1001, 20:26–65.

E. Evidence

Petitioner relies on the patent references summarized in the table below.

Name	Reference	Exhibit
Cohen	US 2009/0164034 A1, filed Dec. 19, 2008, published June 25, 2009	1004
Chu	US 6,086,380, filed Aug. 20, 1998, issued July 11, 2000	1005
Sherman	US 2003/0164924 A1, filed Jan. 8, 2003, published Sept. 4, 2003	1006
Joslin	US 7,324,166 B1, filed Nov. 15, 2004, issued Jan. 29, 2008	1007

Lei	US 2008/0285859 A1, filed Apr. 26, 2007, published Nov. 20, 2008	1008
Austerberry	David Austerberry, The Technology of Video & Audio Streaming (2002).	1014

Petitioner also relies on the Declaration of Jeremy Cooperstock, Ph.D. (Ex. 1003) to support its contentions that the challenged claims are unpatentable. Patent Owner relies on the Declaration of Michael I. Shamos, Ph.D. (Ex. 2001) in support of its contentions that we should exercise our discretion to deny the Petition under 35 U.S.C. § 325(d).

F. Asserted Grounds

Petitioner asserts that the challenged claims of the '911 patent are unpatentable based on the following grounds summarized in the table below (Pet. 18):

Claim(s) Challenged	35 U.S.C. §²	References/Basis
1–10	103(a)	Cohen, Chu, Sherman, Joslin
11	103(a)	Cohen, Chu, Sherman, Joslin, Lei
1–10	103(a)	Cohen, Chu, Sherman, Joslin, Austerberry
11	103(a)	Cohen, Chu, Sherman, Joslin, Lei, Austerberry

² Based on the record before us, the challenged claims of the '911 patent have an apparent effective filing date before March 16, 2013 and, therefore, the 35 U.S.C. § 103 provision of the Leahy-Smith America Invents Act ("AIA"), Pub. L. No. 112-29, §§ 3(b)–3(c), 3(n)(1), 125 Stat. 284, 285–87, 293 (2011) does not apply. *See* Ex. 1001, codes (60), (63). Our determinations and findings herein would not change if the AIA provision did apply.

III. DISCRETIONARY DENIAL OF THE PETITION

Patent Owner argues we should exercise our discretion under 35 U.S.C. § 314(a) to deny institution of *inter partes* review in view of the parallel district court proceeding. Prelim. Resp. 23–28. Patent Owner also argues that the Petition should be denied under 35 U.S.C. § 325(d). *Id.* at 5–23. Petitioner addresses discretionary denial in its Petition and Preliminary Reply. Pet. 23–25; *see generally* Prelim. Reply. Patent Owner’s Preliminary Sur-reply responds to Petitioner’s Preliminary Reply. *See generally* Prelim. Sur-reply. We address the parties’ arguments regarding discretionary denial in all the briefs below.

A. 35 U.S.C. § 314(a)

Under Section 314(a), the Director has discretion to deny institution. *See* 35 U.S.C. § 314(a) (stating “[t]he Director *may not* authorize an *inter partes* review to be instituted unless the Director determines that the information presented in the petition . . . 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”) (emphasis added). The Board’s precedential decision in *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv*”) sets forth six factors that we consider as part of this balanced assessment when determining whether to use our discretion to deny institution.

Our analysis under *Fintiv* is guided by the USPTO Director’s Memorandum issued on June 21, 2022, titled “Interim Procedure for Discretionary Denials in AIA Post Grant Proceedings with Parallel District Court Litigation” (“Director’s Memo”). Pursuant to the Director’s Memo, we “will not discretionarily deny institution . . . where a petitioner presents a [*Sotera*] stipulation.” Director’s Memo at 3 (citing *Sotera Wireless, Inc. v.*

Masimo Corp., IPR2020-01019, Paper 12 (PTAB Dec. 1, 2020) (precedential as to § II.A)). We have considered all arguments and evidence presented by both parties as to whether we should exercise discretion and deny institution of *inter partes* review under *Fintiv*. Pet. 23–25; Prelim. Resp. 23–28; Prelim. Reply, Prelim. Sur-reply. Petitioner submitted a stipulation titled “Defendant/Counterclaimant Snap Inc.’s *Sotera* Stipulation,” which was filed in the co-pending district court litigation and, with the exception of the listing of the grounds in the instant proceeding, is the same as the stipulation filed in the *Sotera* case. Ex. 1047. Because Petitioner has offered a stipulation like in *Sotera*, i.e., to “not pursue in [the co-pending district court litigation] the specific grounds [asserted in this *inter partes* review], or any other ground . . . that could have been reasonably raised in the IPR” (Pet. 23; Ex. 1047), we do not discretionarily deny institution under *Fintiv*.

B. 35 U.S.C. § 325(d)

1. Principles of Law

Under § 325(d), in determining whether to institute an *inter partes* review, “the Director may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office.” In evaluating whether the same or substantially the same prior art or arguments were previously presented to the Office, the Board has identified several non-exclusive factors for consideration. *Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 at 17–18 (PTAB Dec. 15, 2017) (precedential as to § III.C.5, first paragraph) (“the *Becton, Dickinson* factors”). Those factors are as follows:

- (a) the similarities and material differences between the asserted art and the prior art involved during examination;
- (b) the cumulative nature of the asserted art and the prior art evaluated during examination;
- (c) the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection;
- (d) the extent of the overlap between the arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the prior art;
- (e) whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art; and
- (f) the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments.

Id. (footnote omitted); *see also* Patent Trial and Appeal Board Consolidated Trial Practice Guide 62–63 (Nov. 2019).³

We further apply the following two-part framework in determining whether to exercise its discretion under § 325(d), specifically:

- (1) whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and
- (2) if either condition of [the] first part of the framework is satisfied, whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims.

Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH, IPR2019-01469, Paper 6 at 8 (PTAB Feb. 13, 2020) (precedential) (“*Advanced Bionics*”). *Becton, Dickinson* factors (a), (b), and (d) relate to

³ Available at <https://www.uspto.gov/TrialPracticeGuideConsolidated>.

the first step, and *Becton, Dickinson* factors (c), (e), and (f) relate to the second step. *Id.* at 10.

We turn to the parties' contentions regarding § 325(d). For the reasons given below, we are not persuaded to discretionarily deny the Petition based on § 325(d).

2. *Advanced Bionics Part One: Whether the Prior Art and Arguments are the Same or Substantially the Same*

Beginning with the first part of the *Advanced Bionics* framework, we consider whether *Becton, Dickinson* factors (a), (b), and (d) indicate that “the same or substantially the same art previously was presented to the Office” or that “the same or substantially the same arguments previously were presented to the Office.” Previously presented art includes art made of record by the Examiner, and art provided to the Office by an applicant, such as on an Information Disclosure Statement (“IDS”), in the prosecution history of the challenged patent. *Becton, Dickinson*, Paper 8 at 7–8.

In a non-final office action, the Examiner rejected all application claims as anticipated by Cohen. Ex. 1002, 114–119. Applicant responded by amending the only independent application claim and adding application claims 8–12. *Id.* at 98–112. In the final office action, the Examiner rejected application claims 1–11 as obvious over Cohen and two other references, specifically U.S. Patent Publication No. 2010/0027961 A1 (“Gentile”) and U.S. Patent Publication No. 2008/0109306 A1 (“Maigret”). Ex. 1002, 78–91. The Examiner cited Gentile for two recitations added by amendment, which correspond to elements 1f and 1j in claim 1 and similar elements in the other independent claims. *Id.* The Examiner cited Maigret as an alternative to Cohen with respect to elements relating to creating and publishing streamable video. *Id.* The Examiner rejected application claim 12

as obvious over Cohen, Maigret, and U.S. Patent Publication No. 2011/0053688 A1 (“Crawford). *Id.* at 87–89.

Applicant appealed and filed an Appeal Brief. *Id.* at 52–66. In response, the Examiner issued a Notice of Allowability that stated in its reasons for allowance “[i]n light of the newly amended feature(s) and arguments of pp. 5, 9 and in conjunction with all other limitations of the independent claims render claims 1, 11, and 12 allowable.” *Id.* at 17.

Petitioner acknowledges that the Examiner considered Cohen. *See, e.g.*, Pet. 24–25. Although Petitioner argues with respect to *Becton, Dickinson* factors (b)–(d) that “the Examiner [did not] have the benefit of *Chu, Sherman, Joslin, and Lei* (or *Austerberry*)” (*id.* at 24), Petitioner also argues that the claim elements “were well-known to POSITAs by 2009–2010.” *Id.* at 16. Indeed, Petitioner argues that Gentile provides additional evidence that elements 1f and 1j were “also obvious as generally known.” *Id.* at 7–10, 49, 56.

Patent Owner provides extensive argument (*see, e.g.*, Prelim. Resp. 5–23) and the testimony of Dr. Shamos (Ex. 2001) in support of its position that part one of the *Advanced Bionics* framework is met. In its Preliminary Reply, Petitioner argues that the Petition shows the asserted combination and Dr. Cooperstock’s Declaration are not cumulative to the evidence considered by the Examiner and, further, that the Examiner failed to appreciate the teachings of the art considered, including Cohen. Prelim. Reply 1–5.

Upon consideration of the arguments and evidence of both parties, we find that Cohen was previously presented to the Office and the disclosures in the art asserted in the Petition, including *Chu, Sherman, Joslin, and Lei*, overlap the art before the Examiner during prosecution. We do not provide further analysis of part one of the *Advanced Bionics* framework because

even assuming part one is satisfied, for the reasons discussed below, we determine that Petitioner demonstrates that the Office erred in a manner material to the patentability of the challenged claims.

3. *Advanced Bionics Part Two: Whether Petitioner has Demonstrated Material Error*

We next analyze the second part of the *Advanced Bionics* framework and consider *Becton, Dickinson* factors (c), (e), and (f) in connection with our analysis. *Advanced Bionics*, Paper 6 at 8.

As to *Becton, Dickinson* factor (c), “the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection,” Petitioner does not dispute that Cohen was relied on by the Examiner in rejecting the claims. Also, Gentile, relied on in the Petition as additional evidence showing obviousness, was relied on by the Examiner as a secondary reference in an obviousness rejection.

As to *Becton, Dickinson* factor (e), “whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art,” Petitioner provides persuasive evidence of Examiner error. Pet. 16–17, 23–25, 28–72, 80–87. Petitioner argues that Patent Owner’s “Appeal Brief argued *Cohen* (and *Gentile*, *Crawford*, and *Maigret*) failed to teach [1b], [1e], [and] [1r].” Pet. 16 (citing Ex. 1002, 57–58). Petitioner argues “as discussed in those elements below, P[atent] O[wner]’s arguments were wrong as to *Cohen* and/or failed to acknowledge the claimed elements were well-known to POSITAs [(persons of ordinary skill in the art)] by 2009–2010” and, thus, “the Examiner erred in allowing the Challenged Claims.” *Id.* (citing Ex. 1002 ¶¶ 116–127, 133–136). For the reasons discussed below (see §§ IV.D, IV.E), we preliminarily find that the Petition shows that each of the elements of the challenged claims is taught by the asserted art.

Further, we preliminarily find (*id.*) that Petitioner shows that Cohen itself teaches many recitations of the challenged claims.

Also, the reasons for allowance in the Examiner's Notice of Allowability state "[i]n light of the newly amended feature(s) and arguments of pp. 5, 9 and in conjunction with all other limitations of the independent claims render claims 1, 11, and 12 allowable." Ex. 1002, 17. In the cited portions of the Appeal Brief, Applicant argued that the Examiner had not established a motivation to combine the references relied on. *Id.* at 56, 60. Petitioner argues that the Petition's explanation for why a person having ordinary skill in the art would have been motivated to combine the references is more detailed than the motivation provided by the Examiner. Prelim. Reply 4. For the reasons given below (*see* §§ IV.D, IV.E), we preliminarily find that Petitioner has articulated sufficiently persuasive reasoning, based on the evidence of record, as to why one of ordinary skill in the art would have made Petitioner's proposed combinations. Based on the record before us at this early stage, we find that Petitioner has shown that the Examiner erred in failing to appreciate that a person having ordinary skill in the art would have combined the teachings in the manner recited in the claims. Pet. 28–32, 84; Ex. 1003 ¶¶ 202–217, 511–517.

Finally, as to *Becton, Dickinson* Factor (f), "the extent to which additional evidence and facts presented in the Petition warrant reconsideration of prior art or arguments," Petitioner provides a detailed element-by-element analysis showing how Cohen Chu, Sherman, Joslin, and Lei relate to the independent challenged claims. Pet. 28–73, 80–87. Petitioner also relies upon Dr. Cooperstock's Declaration to support the analysis. *Id.* The addition of an expert declaration in this case that supports

obviousness and rationale to combine significantly adds evidence that was unavailable to the Examiner.

Considering *Becton, Dickinson* factors (c), (e), and (f) together, we conclude that Petitioner sufficiently demonstrates Examiner error based on the grounds in its Petition, with support from expert testimony, which show, in particular, that the Examiner overlooked, or did not appreciate, the materiality of the cited references as relating to the claims at issue. As discussed above, Petitioner also sufficiently demonstrates Examiner error by showing a lack of appreciation that there would have been a reasonable basis for a person having ordinary skill in the art to have combined the teachings in the manner recited in the claims.

4. *Conclusion*

For the reasons discussed above, we conclude that the Petition presents facts and evidence that, in this case, sufficiently demonstrate the Examiner erred in a manner material to the patentability of the challenged claims, and we therefore decline to exercise our discretion to deny institution under 35 U.S.C. § 325(d).

IV. ANALYSIS

A. *Legal Standards*

Petitioner bears the burden of persuasion to prove unpatentability of the claims challenged in the Petition, and that burden never shifts to Patent Owner. *Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015).

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 on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) when in evidence, objective evidence of nonobviousness, i.e., secondary considerations.⁴ *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

B. Level of Ordinary Skill in the Art

Petitioner asserts that a person of ordinary skill in the art would have had at least a bachelor’s or equivalent degree in computer engineering, computer science, or related field, and 2–3 years of experience in the research, design, or development of audio and video production, editing, network storage, and streaming systems and related hardware, software, and firmware or equivalent experience. A person with less education but more relevant experience, or more education and less experience, may also qualify.

Pet. 25–26 (citing Ex. 1003 ¶¶ 187–190). At this stage in the proceeding, Patent Owner does not dispute Petitioner’s proposal. *See generally* Prelim. Resp.

Considering the subject matter of the ’911 patent, the background technical field, and the asserted prior art, we agree with Petitioner’s proposed qualifications for an ordinary level of skill, except we decline to adopt “at least” as that language is vague and open-ended. Otherwise, Petitioner’s proposed definition is consistent with the level of skill reflected

⁴ Patent Owner does not present objective evidence of nonobviousness at this stage of the proceeding.

in the specification of the '911 patent and the asserted prior art references. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

Accordingly, for purposes of this Decision, and based on the current record, except as noted above, we adopt Petitioner's assessment of the level of skill for one of ordinary skill in the art.

C. *Claim Construction*

We apply the same claim construction standard used in district court actions under 35 U.S.C. § 282(b), namely that articulated in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). *See* 37 C.F.R. § 42.100(b). In applying that standard, claim terms generally are given their ordinary and customary meaning as would have been understood by a person of ordinary skill in the art at the time of the invention and in the context of the entire patent disclosure. *Phillips*, 415 F.3d at 1312–13. “In determining the meaning of the disputed claim limitation, we look principally to the intrinsic evidence of record, examining the claim language itself, the written description, and the prosecution history, if in evidence.” *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d 1005, 1014 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1312–17).

Petitioner asserts that, “[a]pplying *Phillips* here, all terms have their plain and ordinary meaning.” Pet. 26. Petitioner states that the parties “have served preliminary claim constructions in the related District Court case,” but the “Challenged Claims are obvious under either party’s constructions.” *Id.* at 27 (citing Ex. 1051; Ex. 1052; Ex. 1003 ¶ 199). Petitioner also states that it “asserted in the district court litigation that some terms’ ambiguous outer bounds render claims indefinite,” but “the claims are understandable enough for IPR purposes.” *Id.* at 27.

Petitioner provides only one express construction, which is that the claim elements are performed by one or more servers, rather than a client. *Id.* at 26–27. Petitioner argues that the ’911 patent Specification “indicates performance of the claim elements are server-controlled” by describing “performance ‘over a network.’” *Id.* at 26 (citing Ex. 1001, code (57), 3:48–53). Petitioner argues, therefore, a person having ordinary skill in the art “would have understood the Challenged Claims’ elements are performed server-side” and “Petitioner compared the claims to the prior art accordingly.” *Id.* at 27. Petitioner argues to the extent we do not adopt Petitioner’s construction, “it would also have been obvious to move processing between servers and clients in a server/client system by 2009–2010.” *Id.* at 27 (citing Ex. 1003 ¶ 197).

Patent Owner does not propose any claim constructions. *See generally* Prelim. Resp. At this early stage, Patent Owner does not dispute Petitioner’s construction. *Id.*

Consistent with Petitioner’s arguments, the ’911 patent describes that it discloses “methods and systems for creating and disseminating of audio and video content *generated by a user over a network.*” Ex. 1001, code (57) (emphasis added). The ’911 patent similarly describes “[e]mbodiments of the present disclosure include systems and methods for enabling a user to generate audio content *over a network*” and “the present disclosure relates to *using a network* for generating audio and video content *over a network.*” *Id.* at 3:48–53 (emphases added). The ’911 patent also describes receiving “a request to create” audio content or multimedia content “*over a network.*” *Id.* at code (57) (emphasis added). Based on the record at this early juncture, we use Petitioner’s proposed construction for purposes of institution.

For purposes of this decision, we use the ordinary and customary meaning of the remaining terms of the claims. Based on the record before us at this early juncture, we need not make further, express determinations regarding claim construction to resolve a dispute between the parties. *See Realtime Data, LLC v. Iancu*, 912 F.3d 1368 (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))).

D. Unpatentability of Claims 1–10

Petitioner asserts that claims 1–10 are unpatentable as obvious over the combination of Cohen, Chu, Sherman, and Joslin. Pet. 18, 28–72. Petitioner asserts, in the alternative, that claims 1–10 are unpatentable as obvious over the combination of Cohen, Chu, Sherman, Joslin, and Austerberry. *Id.* at 18, 66–68, 87–88.

We begin with an overview of the asserted references. We then turn to the parties’ contentions.

1. Cohen

Cohen is titled “Web-Based Performance Collaborations Based on Multimedia-Content Sharing.” Ex. 1004, code (54). Cohen describes systems and methods for web-based performance collaborations based on multimedia content sharing, for example, through an online interface. *Id.* ¶ 36. An exemplary system is illustrated in Figure 1.

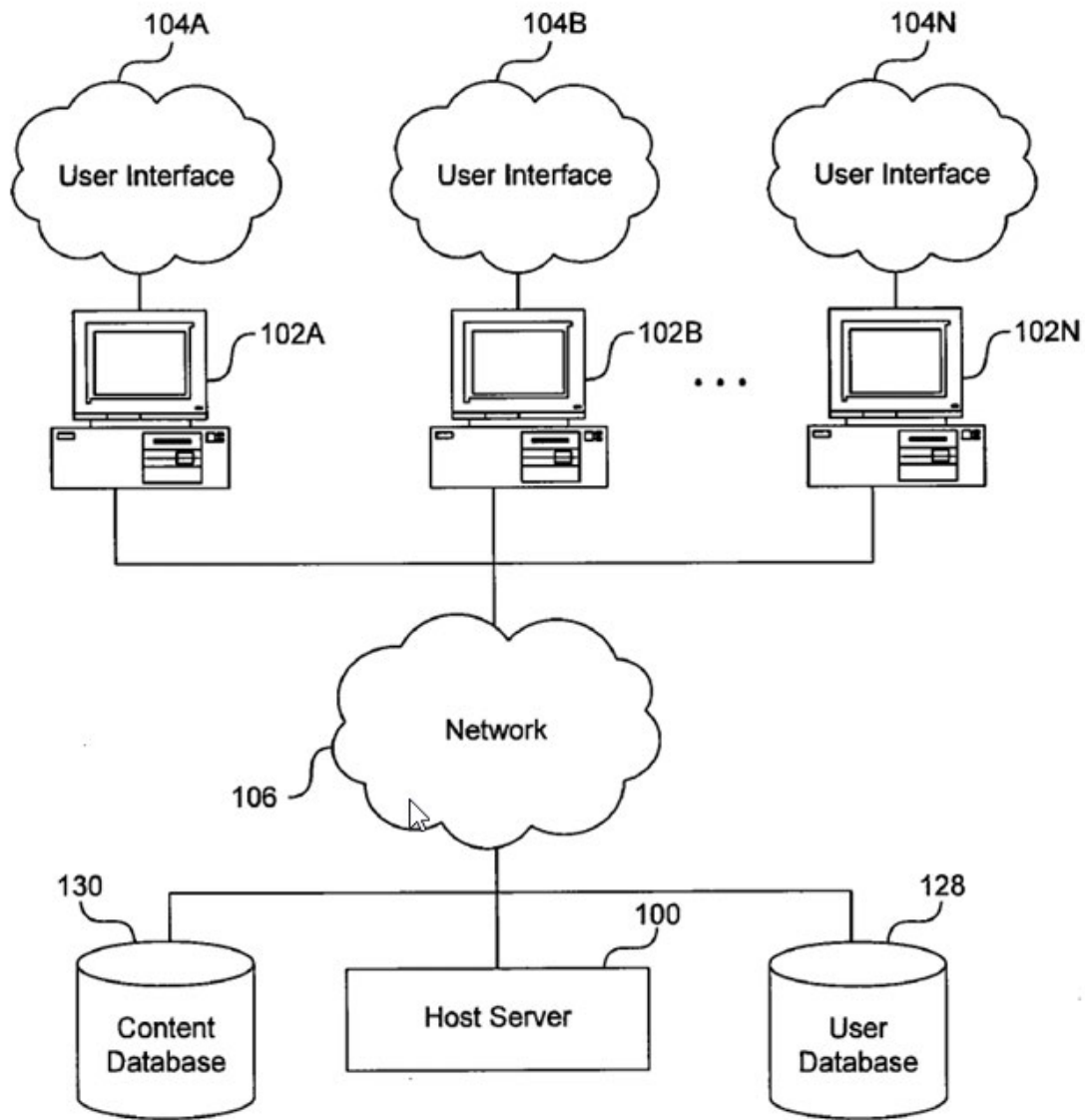


FIG. 1

Figure 1, above, illustrates a block diagram of client devices 102A–N, network 106, and host server 100. *Id.* ¶¶ 54–55, Fig. 1. Client devices 102A–N can be a server desktop, a desktop computer, or a mobile computing device. *Id.* ¶ 55. Client devices 102A–N are coupled to network 106 and communicate with remote servers that provide user interfaces of the World Wide Web via a web browser, for example. *Id.* ¶¶ 55, 59.

The host server is described in more detail in Figure 2 of Cohen. *Id.* ¶¶ 7, 63.

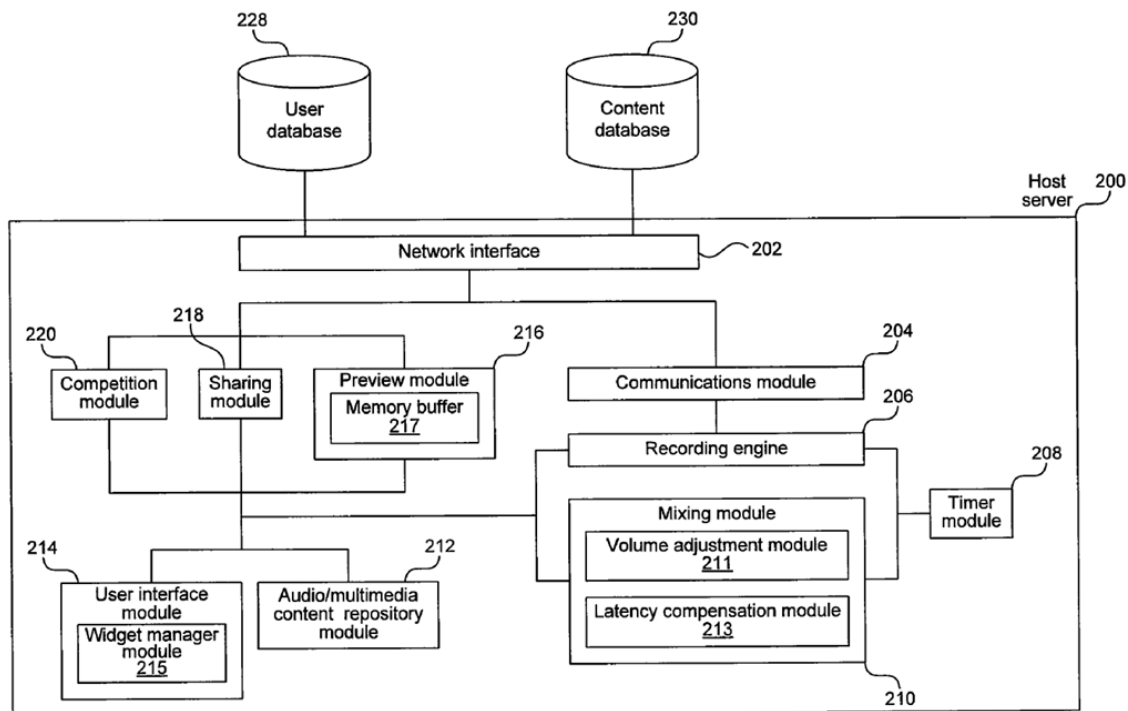


FIG. 2

Figure 2, above, illustrates a block diagram of a system of host server 200 coupled to user database 228 and content database 230. *Id.* ¶ 63, Fig. 2. As shown in Figure 2, host server 200 includes communications module 204, recording engine 206, preview module 216, mixing module 210, audio repository module 212, user interface module 214, and sharing module 218. *Id.* ¶ 64, Fig. 2.

Communications module 204 “receives data (e.g., audio data, textual data, audio files, video data, etc.), information, commands, requests (e.g., text, video, and/or audio-based), and/or text[-]based messages over a network.” *Id.* ¶ 68. Recording engine 206 is a “combination of hardware components and/or software agents able to record multimedia (e.g., audio, text, image, and/or video) content for example, over a network connection

(e.g., Internet).” *Id.* ¶ 72. Preview module 216 is a “combination of hardware components and/or software agents able to perform playback of multimedia content such as playback of recorded content and/or simultaneous playback of multiple pieces of multimedia content (e.g., audio, image, video, etc.).” *Id.* ¶ 78.

Additionally, mixing module 210 is a “combination of hardware components and/or software agents able to combine multiple audio tracks and to generate a mixed track” and performs, for example, “synchronization, filtering, noise removal/cancellation, and/or spectral analysis.” *Id.* ¶¶ 83, 86. Mixing module 210 also “is able to perform image processing techniques and/or video processing techniques including, but not limited to, geometric conversions, color adjustments, digital compositing, de-mosaicing, image editing, morphing, segmenting, video de-noising, deinterlacing, de-flicking, filtering, etc.” *Id.* ¶ 86. Audio repository module 212 is a “combination of hardware modules and/or software agents able to store, playback, and/or read audio-based and other multimedia data and content, in a variety of formats, including, but not limited to, mp3, mp4 . . . DVD, CD, Blu-Ray, HD-DVD.” *Id.* ¶ 90.

Further, user interface module 214 is a “combination of hardware components and/or software agents able to generate, modify, and/or adjust user interfaces,” and can provide a user interface for facilitating “multimedia content recording, multimedia content exchange, [and] multimedia playback.” *Id.* ¶ 92. Sharing module 218 is a “combination of hardware components and/or software agents able to manage, track, modify, and/or enforce the privacy attributes” of user content. *Id.* ¶ 109.

2. *Chu*

Chu is titled “Personalized Karaoke Recording Studio.” Ex. 1005, code (54). Chu relates to “a self-operated karaoke recording booth” in which “a user is provided with a selection of background scenes from which to choose and also with the option of having the lyrics of the karaoke selection displayed or suppressed.” *Id.* at code (57). Chu describes “[f]rom a computer keyboard located below the screen the user selects a particular background scene from among a plurality of alternatively selectable, electronically stored background image scenes.” *Id.* at 3:9–12. Chu describes “the background scene involves a moving sequence that appears to be occurring directly behind the image of the face of the user.” *Id.* at 3:15–17. In Chu’s recording session, a “sound track typically involves karaoke music and will normally be coordinated with the background scene that will appear behind the user’s image.” *Id.* at 3:59–63.

Chu describes during a karaoke selection “a number of different inputs are fed to an audio/video mixer 124.” *Id.* at 14:48–52. In particular, Chu describes transmitting “music of the selected karaoke composition,” “the video image from the video camera 30,” “the vocal performance of the performer 21,” and the “chosen background scene,” which is “typically a moving scene.” *Id.* at 14:50–64. Audio video mixer 124 mixes the video signals and audio. *Id.* at 15:27–31.

3. *Sherman*

Sherman is titled “Video Karaoke System and Method of Use.” Ex. 1006, code (54). relates to “[k]araoke systems that allow dubbing an actor’s voice in a video clip.” Ex. 1006 ¶ 2. Specifically, Sherman describes a system that includes software for displaying screens to a user that allow the user to select a movie for a new recording, select a particular clip, record

over one or more actors' voices, and save the video clip in a preferred format. *Id.* ¶ 14. Sherman also describes offering an option for editing visual elements of a movie clip, including replacing the background of a scene and replacing actors in a scene with still images or video of the user. *Id.* ¶ 24.

4. *Joslin*

Joslin is titled "Live Actor Integration in Pre-Recorded Well Known Video." Ex. 1007, code (54). Joslin relates to "insert[ing] a participant realistically into familiar background media." Ex. 1007, code (57). Joslin describes that a "digitally stored performance may also be modified and uploaded to a server for subsequent download" through "the Internet." *Id.* at 2:41–44. More specifically, Joslin describes a "means for retrieving a participant's performance video and modifying the format and resolution to compressed digital video for internet video streaming, and uploading to a server for later download by the participant via the internet." *Id.* at 3:40–44.

5. *Austerberry*

Austerberry is a book titled "The Technology of Video & Audio Streaming." Ex. 1014, 1. Austerberry describes capturing video and audio content, digitally encoding files in a streamable form (e.g., MPEG), and delivering them over the Web. *Id.* at 7–8. 10–11, Fig. 1.4.

6. *Independent Claim 1*

Petitioner provides a detailed element-by-element analysis and reasoning to combine the asserted references. Pet. 28–72. Patent Owner argues that "Petitioner has not carried out a proper analysis" under *Graham* because the Petition does not identify differences between Cohen and the challenged claims or how those differences are satisfied by the secondary references. Prelim. Resp. 28. For reasons discussed further herein, we

preliminarily find that Petitioner shows each element recited in claim 1 is taught by the prior art. Patent Owner does not dispute Petitioner's showing with respect to any specific element.

Patent Owner further argues "Petitioner never admits that there are any differences between what Cohen 'teaches' and the Challenged Claims, but yet also does not advance an anticipation argument, or an obviousness argument based solely on Cohen." Prelim. Resp. 34–35. Although obviousness of claim 1 over Cohen alone is not set forth in Petitioner's summary table (Pet. 18), explicit arguments in a limitation-by-limitation analysis in a petition may be considered. *Polygroup Ltd. MCO v. Willis Elec. Co., Ltd*, 759 F. App'x 934, 942–943 (Fed. Cir. 2019) (unpublished) (citing *Realtime Data*, 912 F.3d at 1372–73).

Patent Owner also argues that Petitioner does not present sufficient reasoning to make its proposed combinations. For the reasons set forth below, we find Petitioner's showing in that regard sufficient for institution.

a) Reasoning to Combine

First, Petitioner provides reasons for combining Cohen and Chu as follows:

A POSITA having *Cohen* and *Chu* (with/without *Sherman/Joslin*) would have been motivated to modify *Cohen*'s teachings of recording users singing over pre-recorded audio content with *Chu*'s similar process using *Chu*'s user-selectable background and compositing functionality, at least in view of *Chu*'s teaching that such improvements were desirable and *Cohen*'s teaching that modifications to its system were possible. EX1003, ¶206. In combination, these teachings would have provided an improved multimedia-creation system with additional user-selectable content (e.g., user-selectable backgrounds) and compositing functionality. *Id.* A POSITA would have understood these additions were desirable by 2009–2010. *Id.*

Pet. 28–29. Petitioner submits the testimony of Dr. Cooperstock in support of its position that a person having ordinary skill in the art would have combined Cohen’s and Chu’s teachings in the manner proposed. *See, e.g.*, Ex. 1003 ¶¶ 202–206.

Second, Petitioner argues that a person having ordinary skill in the art also would have been motivated to modify the combination of Cohen and Chu with Sherman’s teachings “of replacing a background’s static portions with another background or video” because such modification would have been understood to have been “an improved multimedia-creation system including additional user-selectable content (e.g., user-selectable editable backgrounds)” and such additions would have been understood to be “desirable by 2009–2010.” Pet. 29. Petitioner submits the testimony of Dr. Cooperstock in support of its position that a person having ordinary skill in the art would have combined Cohen’s, Chu’s, and Sherman’s teachings in the manner proposed. *See, e.g.*, Ex. 1003 ¶¶ 207–210.

Third, Petitioner argues that a person having ordinary skill in the art would have been further motivated to modify the combination of Cohen, Chu, and Sherman with Joslin’s teachings of “processing, encoding, and publishing” because Joslin teaches “another choice” for implementing sharing. Pet. 30, 31. Petitioner argues the resulting combination would have been understood as “an improved system” including “characteristics a POSITA would have recognized were desirable by 2009–2010.” *Id.* Petitioner submits the testimony of Dr. Cooperstock in support of its position that a person having ordinary skill in the art would have combined Cohen’s, Chu’s, Sherman’s, and Joslin’s teachings in the manner proposed. *See, e.g.*, Ex. 1003 ¶¶ 211–213.

Fourth, relying on the testimony of Dr. Cooperstock, Petitioner argues “further motivation can be found in a POSITA’s general knowledge at the time.” *Id.* at 31 (citing Pet. 7–10; Ex. 1003 ¶ 214). Dr. Cooperstock testifies as follows:

Beyond the specific motivations to combine *Cohen*, *Chu*, *Sherman*, and *Joslin* provided by the references themselves, further support for such motivation can be found in a POSITA’s general knowledge at the time, such as described by the references identified in §I. For example, a POSITA would have been well aware of teachings that adding additional compositing, editing, sharing, and file creation methodologies were desirable in view of the references discussed in §I. *See, e.g.*, EX1009 (*Corset*) at ¶¶[0001]–[0005], EX1010 (*Relan*) at ¶¶[0004]–[0009] and [0018], EX1011 (*Gausseride*) at ¶¶[0004]–[0009], EX1012 (*Manico*) at ¶¶[0002]–[0008], EX1013 (*Gentile*) at ¶¶[0003]–[0008], EX1014 (*Austerberry*), *passim*, EX1015 (*YouTube*) at 1, 4, 23, 80, 82. Each of these references would have informed a POSITA’s general understanding as of 2009–2010 that it was desirable to combine *Cohen*, *Chu*, *Sherman*, and *Joslin* as described herein.

Ex. 1003 ¶ 214. Petitioner provides further arguments in support of its reasons to combine in its element-by-element analysis. Pet. 32–72.

Petitioner also argues a person of ordinary skill in the art would have had a reasonable expectation of success in making its proposed combination. Pet. 31–32. Petitioner submits the testimony of Dr. Cooperstock in support of its position. *See, e.g.*, Ex. 1003 ¶¶ 215–217.

Patent Owner argues Petitioner “does not provide a rational reason to combine the cited documents in a manner that satisfies the features recited by the Challenged Claims.” Prelim. Resp. 3. Patent Owner does not rely on the testimony of Dr. Shamos in support of its arguments that the rationales to combine in the Petition are deficient. *See generally* Ex. 2001 (not testifying

regarding the rationales to combine in the Petition). We address each of Patent Owner's arguments in turn.

First, Patent Owner argues that the Petition's rationale to combine is deficient because it is the same for each proposed combination. Prelim. Resp. 30; *see also id.* at 37 (referring to the combinations as "generic"). We preliminarily do not find fault with Petitioner's use of the word "improved" and the phrase "desirable by 2009–2010" with respect to each of the proposed combinations. Pet. 28–32. Also, we preliminarily find the teachings of the secondary references are consistent with Petitioner's arguments and Dr. Cooperstock's testimony that the proposed combinations would have been understood to be improvements and additional user-selectable features and compositing functionalities would have been understood to have been desirable. *See, e.g.*, Ex. 1005, 2:18–23 (describing "conventional systems" as having "disadvantages" with respect to superimposing on "a prerecorded background scene"), 2:32–36 (describing that the "prior art" has "deficiencies"), 5:1–32 (describing that "the present invention may be considered to be an improvement in an automated, self-operated karaoke recording system" and that "[p]referably the system also includes a video background storage device for electronically storing a plurality of alternatively selectable background image scenes"), 5:33–47 (describing suppressing images of the backdrop to avoid "the double exposure or phantom effect characteristic of conventional" karaoke devices); Ex. 1006 ¶ 38 (describing that Sherman's teachings allow an electronic greeting service to deliver a "highly individualized video clip"); Ex. 1007, 1:44–46 (describing the "evolution" of karaoke as inserting "participants into a background entirely pre-produced specifically for the purpose of inserting a participant member"). We further preliminarily find the teachings

of the asserted references are consistent with Petitioner’s arguments and Dr. Cooperstock’s testimony that more distribution methods would have been recognized as desirable and Joslin’s more particularized disclosure would have motivated an ordinarily skilled artisan to make the proposed combination. *See, e.g.*, Ex. 1004 ¶ 104 (describing accessibility “by the user’s friends or connections in the online social network”), ¶ 142 (listing multiple social network sites “(e.g., Friendster, Facebook, Linkedin, etc.)”; Ex. 1007, 3:40–44 (describing “modifying the format and resolution to compressed digital video for internet video streaming”), 10:33–35 (describing storing the recording in “compressed video file (MPEG-2)” format); Ex. 1014, 9 (describing that the “applications for streaming are endless”), 10 (describing that “[s]treaming media presents the professional communicator with a whole new way to deliver information” and that by “leveraging the Internet, distribution costs can be much lower than the traditional media”).

Second, Patent Owner argues that the Petition is deficient because it does not discuss “why Cohen requires any such modification” or “how the combination would have been made without disrupting the purpose and function of Cohen.” Prelim. Resp. 30–31. Patent Owner’s arguments are conclusory. For the reasons given above, we preliminarily find that Petitioner’s reasons for making the proposed modifications are consistent with the evidence of record. We also preliminarily find that Petitioner shows similarity in the teachings of the asserted references and supports that Cohen itself teaches combining its embodiments with each other and other systems. Pet. 28–32; Ex. 1004 ¶¶ 216–217.

Third, Patent Owner argues that the Petition is deficient because “various combinations” are discussed and the Petition includes argument

such as “even if Cohen were deficient (it isn’t).” Prelim. Resp. 36–38; *see also id.* at 33–34 (arguing the Petition is not clear as to “whether all four documents must be combined to satisfy each separate element of the claim”). We understand Patent Owner’s argument to be that the Petition is deficient for identifying teachings in both Cohen and, alternatively, in a secondary reference. *Id.* The Federal Circuit addressed a similar factual situation involving alternative positions with approval in *Realtime Data, LLC v. Iancu*, 912 F.3d 1368 (Fed. Cir. 2019). In that case, the petitioner set forth alternative positions as to how the prior art taught the elements of the claims. *See id.* at 1373 (“As both the Board and Realtime recognized, HP also argued *in the alternative* that Nelson disclosed some of the elements in the claims at issue.”). Patent Owner also, more specifically, argues Petitioner’s reliance on Sherman’s start screen feature in combination with Cohen’s teachings lacks explanation as to how or why a person having ordinary skill in the art would have made that proposed combination. Prelim. Resp. 36. Petitioner’s reliance on Sherman is an alternative argument to its reliance on Cohen’s teachings relating to user interface module 214. Pet. 34–35. Petitioner relies on (*id.* at 35) Sherman’s teaching that its functions are “described in the order in which a user is likely to initiate them” and that “an initial screen will present the user with the option of selecting a movie for a new recording.” Ex. 1006 ¶¶ 13–14. We preliminarily find Petitioner’s showing sufficient. *See SightSound Techs., LLC v. Apple Inc.*, 809 F.3d 1307, 1318–19 (Fed. Cir. 2015) (affirming the Board’s obviousness determination that was based on the “[f]inding that the reason to combine was manifested by the references themselves”).

Fourth, Patent Owner argues “Petitioner fails to articulate how or why the various embodiments of Cohen can or would have been combined.”

Prelim. Resp. 47. Patent Owner characterizes certain embodiments in Cohen relied on by Petitioner as “entirely unrelated.” *Id.* (citing Ex. 1004 ¶¶ 74, 114). Patent Owner also argues that the Petition’s arguments relying on Cohen’s teachings of both a challenge button and a record button are flawed. *Id.* at 48. Contrary to Patent Owner’s argument, Cohen itself teaches combining its embodiments with each other. Ex. 1004 ¶¶ 216–217. We also preliminarily find contrary to Patent Owner’s arguments that Cohen’s paragraphs 74 and 114 pertain to “unrelated embodiment[s]” (Prelim. Resp. 47), those paragraphs in Cohen describe recording engine 206 and competition module 220, both of which are illustrated in Figure 2 as being modules in host server 200. Ex. 1004, Fig. 2; *see also id.* ¶ 64 (describing that host server 200 includes “recording engine 206” “and/or a competition module 220” (emphasis added)). We preliminarily find that Petitioner’s identification of multiple teachings in Cohen, including the challenge button and the record button, in support of its argument that prompting a user to select an audio composition and then playing that same audio composition would have been known does not undermine Petitioner’s position.

At this stage, we find Petitioner’s reasons for combining the asserted art are sufficiently persuasive for institution. Petitioner’s arguments that a person having ordinary skill in the art would have had a reasonable expectation of success also are sufficient for purposes of institution. We find that Petitioner’s reasoning is not undermined by Patent Owner’s arguments based on the preliminary record before us at this early stage in the proceeding.

b) Element 1a

The preamble of claim 1 recites “[a] method for generating and sharing audio/video content to a social network.” Relying on the testimony

of Dr. Cooperstock, Petitioner argues “[i]f a limitation,” the preamble “was generally known” and is taught by Cohen. Pet. 33 (citing, e.g., Ex. 1004 ¶¶ 36, 37, 105; Ex. 1003 ¶¶ 219–226).⁵ At this early stage, Patent Owner does not dispute Petitioner’s showing for the preamble.

We preliminarily find Petitioner’s argument supported by Cohen’s statement that it describes “systems and methods for web-based performance collaborations based on multimedia content sharing, for example, through an online interface.” Ex. 1004 ¶ 36. We preliminarily find further support in Cohen’s statement that it “relates to using an online social network for web-based musical collaborations and audio/multimedia content mixing.” *Id.* ¶ 37.

We, therefore, determine that Petitioner has shown sufficiently that the asserted art teaches the preamble for purposes of institution.

c) Element 1b

Element 1b recites “initiating a content creation process in response to a request from a user.” Relying on the testimony of Dr. Cooperstock, Petitioner argues that element 1b is taught by Cohen’s user interface disclosures. Pet. 34–36 (citing, e.g., Ex. 1004 ¶¶ 68, 70, 71, 92–94, 164, Figs. 1, 2, 4A, 4B; Ex. 1003 ¶¶ 229–244). Petitioner argues in the alternative element 1b is taught by screens displaying initially described in Chu and Sherman. *Id.* at 35 (citing, e.g., Ex. 1005, 2:49–54, 11:21–36; Ex. 1006 ¶¶ 13, 14). At this early stage, except to the extent discussed above, Patent Owner does not dispute Petitioner’s showing for element 1b.

We preliminarily find that Petitioner’s argument is supported by Cohen’s disclosure of “user interface module 214,” which is a “combination

⁵ We take no position at this stage on whether the preamble is limiting.

of hardware components and/or software agents able to generate . . . user interfaces and widgets suitable for receiving user input for querying [and] multimedia recording.” Ex. 1004 ¶ 92. We further preliminarily find Petitioner’s argument is supported by Cohen’s disclosure that “when a user wishes to record a track, the communication module 204 prompts the user for permission to access peripheral devices (e.g., microphone, camera, web-cam, etc.) connected to the user device.” *Id.* ¶ 70.

We, therefore, determine that Petitioner has shown sufficiently that the asserted art teaches element 1b for purposes of institution.

d) Element 1c

Element 1c recites “prompting the user to record content.” Relying on the testimony of Dr. Cooperstock, Petitioner argues that element 1c is taught by Cohen’s disclosure of interfaces with interactive elements that provide mechanisms allowing users to record content. Pet. 36–38 (citing, e.g., Ex. 1004 ¶¶ 48, 68, 92–94, 127–128, 131, 133, Figs. 1, 2, 4A, 4B; Ex. 1003 ¶¶ 245–259). Petitioner argues in the alternative element 1c is taught by Sherman’s initial screen prompting users to pick movies. *Id.* at 38 (citing, e.g., Ex. 1006 ¶ 14, Fig. 2). At this early stage, except to the extent discussed above, Patent Owner does not dispute Petitioner’s showing for element 1c. We preliminarily find that Petitioner’s argument is supported by Cohen’s disclosure of user interfaces, such as those illustrated in Figures 4A and 4B. Ex. 1004, ¶¶ 93, 128, 131, 133, Figs. 4A, 4B.

We, therefore, determine that Petitioner has shown sufficiently that the asserted art teaches element 1c for purposes of institution.

e) Element 1d

Element 1d recites “prompting the user to select an audio composition from a list of compositions retrieved from a host server.” Relying on the testimony of Dr. Cooperstock, Petitioner argues that element 1d is taught by Cohen’s disclosure of interfaces with user-selectable category tabs. Pet. 39–42 (citing, e.g., Ex. 1004 ¶¶ 46, 90, 91, 93, 94, 123–129, 131–133, 156, 169, 188, 191, 195, 196, 206, Figs. 4A, 4B; Ex. 1003 ¶¶ 260–274). Petitioner argues in the alternative element 1d is taught by Chu’s disclosure of presenting the user with listings within a selected category. *Id.* at 42 (citing, e.g., Ex. 1005, 5:1–16, 9:8–45, 12:34–48). At this early stage, except to the extent discussed above, Patent Owner does not dispute Petitioner’s showing for element 1d. We preliminarily find that Petitioner’s argument is supported by the cited disclosures of Cohen. *See, e.g.*, Ex. 1004 ¶ 46 (describing users “brows[ing] listings of audio tracks or videos”), ¶ 94 (describing that “user interface module 214 identifies user requests and displays a listing of beats, tracks, and/or video content”), ¶ 128 (describing that “user interface 400 includes a number of selectable tabs allowing the user to select to view a listing of track entries (e.g., tab 402), beat entries (e.g., tab 404), or video entries (e.g., tab 409)”), Figs. 4A, 4B.

We, therefore, determine that Petitioner has shown sufficiently that the asserted art teaches element 1d for purposes of institution.

f) Element 1e

Element [1e] recites “presenting the user with a record button.” Relying on the testimony of Dr. Cooperstock, Petitioner argues that element 1e is taught by Cohen’s disclosure of presenting the user with a record button. Pet. 43–45 (citing, e.g., Ex. 1004 ¶¶ 41, 48, 95, 97, 100, 137, 139, 150–154, 164, 183, 197, 206, Figs. 1, 2, 5A, 5B, 6A; Ex. 1003 ¶¶ 275–288).

Petitioner argues in the alternative element 1e is taught by Sherman's record button. *Id.* at 44 (citing, e.g., Ex. 1006 ¶ 15, Figs. 5, 6). At this early stage, except to the extent discussed above, Patent Owner does not dispute Petitioner's showing for element 1e. We preliminarily find that Petitioner's argument is supported by the cited disclosures of Cohen. *See, e.g.*, Ex. 1004 ¶ 95 (describing with respect to user interface module 214 "a record button may be displayed such that a user can record audio over the video" and "a record button is also typically displayed such that a user can generate a record request over the beat"), ¶ 97 (describing that a user interface includes "a record button for initiating a recording session"), Figs. 5A, 5B, 6A (each illustrating a user interface with a button having the word "RECORD").

We, therefore, determine that Petitioner has shown sufficiently that the asserted art teaches element 1e for purposes of institution.

g) Element 1f

Element [1f] recites "presenting the user with a selection of visual media content for use as a background, wherein upon selecting an instance of pre-recorded visual media content from the selection, the user is presented with an interface to selectively edit the instance of pre-recorded visual media content." Relying on the testimony of Dr. Cooperstock, Petitioner argues that element 1f is taught by Cohen's disclosure of generating content with Chu's disclosure of selecting a background. Pet. 45–49 (citing, e.g., Ex. 1004 ¶¶ 40, 46, 72, 114, 212, Figs. 1–3B, 5A, 5B, 6A; Ex. 1005, code (57), 3:9–17, 3:59–4:2, 5:22–32, 9:18–45, 12:49–64, Figs. 2, 3; Ex. 1003 ¶¶ 290–292, 296–302). Petitioner argues in the alternative element 1f is taught by the combination of Cohen with Sherman's disclosure of replacing scene's static portions and replacing them with other backgrounds. *Id.* at 46 (citing, e.g., Ex. 1006 ¶¶ 3–6, 12–14, 20, 24, Figs. 2–7; Ex. 1003 ¶¶ 289–

302). At this early stage, except to the extent discussed above, Patent Owner does not dispute Petitioner’s showing for element 1f.

We preliminarily find that Petitioner’s argument is supported by the cited disclosures of Cohen and Chu. *See, e.g.*, Ex. 1004 ¶ 40 (describing producing audio and video content), ¶ 212 (describing recording audio and “video content”); Ex. 1005, code (57) (describing a karaoke recording booth where a user “is provided with a selection of background scenes from which to choose”), 3:9–17 (describing a user selecting “a particular background scene from among a plurality of alternatively selectable, electronically stored background image scenes” and masking a “portion of the background scene” so “the finished recorded performance” does not “result in a ‘double exposure’ effect”), 3:59–4:2 (describing coordinating karaoke music “with the background scene that will appear behind the user’s image”), 5:22–32 (describing storing “a plurality of alternatively selectable background image scenes” and providing a means for selecting “a single one of the selectable background scenes”), 12:49–64 (describing a user selecting from among “different background scenes stored on the hard disk 72”). We also preliminarily find Petitioner’s alternative arguments supported by the disclosures of Sherman. *See, e.g.*, Ex. 1006 ¶¶ 3–6 (describing “customizing a motion film selection”), 24 (describing that users can “segment out the static background of a scene and replace it with another background or even video”).

We, therefore, determine that Petitioner has shown sufficiently that the asserted art teaches element 1f for purposes of institution.

h) Element 1i

Element [1i] recites “providing simultaneous aural playback of the audio composition during a recording session, thereby permitting the user to

hear the composition during recording.” Relying on the testimony of Dr. Cooperstock, Petitioner argues that element 1i is taught by Cohen’s disclosure of performing simultaneous playback during a recording session. Pet. 49–52 (citing, e.g., Ex. 1004 ¶¶ 46–48, 74, 114, 137, 138, 150, 152, 173, 175, 200, Figs. 1–2, 5A, 5B, 6A; Ex. 1003 ¶¶ 303–318). Petitioner argues in the alternative element 1i is taught by Chu. *Id.* at 51 (citing, e.g., Ex. 1005, code (57), 3:36–48, 5:1–16, 9:26–45, 14:38–64, Figs. 2, 3). At this early stage, except to the extent discussed above, Patent Owner does not dispute Petitioner’s showing for element 1i. We preliminarily find that Petitioner’s argument is supported by the cited disclosures of Cohen. *See, e.g.*, Ex. 1004 ¶ 48 (during “the recording session, the audio track or video content to which the recording user is recording over is played”), ¶ 74 (“recording engine 206 can perform simultaneous aural playback of a beat to the recording user during a recording session”).

We, therefore, determine that Petitioner has shown sufficiently that the asserted art teaches element 1i for purposes of institution.

i) Element 1j

Element [1j] recites “generating recorded content based on the recording session by compositing video captured during the recording session with the instance of pre-recorded visual media content, such that the video captured during the recording session is selectively made transparent to reveal the instance of pre-recorded visual media content.” Relying on the testimony of Dr. Cooperstock, Petitioner argues that element 1j is taught by Cohen’s disclosure of recording video of users via recording engine 206 and communication module 204 with Chu’s disclosure of compositing the user-selected background with the user video. Pet. 52–56 (citing, e.g., Ex. 1004 ¶¶ 40, 46–48, 72, 73, 114, 137; Ex. 1005, 1:6–21, 2:36–48, 3:19–58, 5:1–48,

9:26–10:16, 14:49–16:11, 16:25–39, Figs. 2, 3; Ex. 1003 ¶¶ 319–332). At this early stage, except to the extent discussed above, Patent Owner does not dispute Petitioner’s showing for element 1j.

We preliminarily find that Petitioner’s argument is supported by the cited disclosures of Cohen and Chu. *See, e.g.*, Ex. 1004 ¶ 46 (describing generating a mixed track), ¶ 72 (describing that “recording engine 206 can record audio or video input”); Ex. 1005, 3:19–58 (describing masking out “that portion of the background scene that occupies the same space in the viewing screen as the image of the face of the performer”), 5:1–48 (describing that “images of the backdrop are suppressed” and “only images of the karaoke performer” are passed to the video display), 14:49–64 (describing that “a number of different inputs are fed to an audio/video mixer 124” including the “music of the selected karaoke composition,” “the chosen background scene,” “the video image from the video camera 30,” and “the vocal performance of the performer 21”), 14:65–15:9 (describing that the “audio video mixer 124 combines the images from the video camera 30 and the selected image scene from the video storage background hard disk 72 such that the video images from the video camera 30 are superimposed upon the image scene from the hard disk 72”), 15:10–26 (describing that audio video mixer 124 provides a chroma-key that “performs the process of replacing portions of one video signal with another by replacing those portions of the first video signal having a certain color range with corresponding portions of a second video signal” and “electronically filters from the selected background image scene from the hard disk 72 all portions thereof except those upon which the images of the backdrop 34 are superimposed”).

We, therefore, determine that Petitioner has shown sufficiently that the asserted art teaches element 1j for purposes of institution.

j) Element 11

Element [11] recites “displaying a preview of the recorded content to the user, wherein the preview of the recorded content enables the user to change the timing or latency of the recorded content to relative to the selected audio composition.” Relying on the testimony of Dr. Cooperstock, Petitioner argues that element 11 is taught by Cohen’s disclosure of previewing recordings. Pet. 56–57 (citing, e.g., Ex. 1004 ¶¶ 42, 47, 48, 78–80, 82, 83, 86–89, 100, 140, 153, 154, 168, 176, 178, 185, 187, 204, 211, Figs. 1–2, 6A; Ex. 1003 ¶¶ 333–344). At this early stage, except to the extent discussed above, Patent Owner does not dispute Petitioner’s showing for element 11. We preliminarily find that Petitioner’s argument is supported by the cited disclosures of Cohen. *See, e.g.*, Ex. 1004 ¶ 42 (describing storing recorded content “in the buffer (e.g., memory buffer) after recording when being played for preview”), ¶ 47 (describing that a user may “preview a portion of the track or video”), ¶ 48 (describing after recording, the “user has the option of previewing the recorded content”), ¶ 78 (describing that “preview module 216” is a “combination of hardware components and/or software agents able to perform playback of multimedia content such as playback of recorded content and/or simultaneous playback of multiple pieces of multimedia content (e.g., audio, image, video, etc.)”), ¶ 80 (describing that “the preview allows the user to make any adjustments to the recorded content (e.g., color, volume, frequency, speed, etc.)”), ¶ 82 (describing that “the preview of the mixed track or mixed multimedia content enables the recording user to request latency adjustment between the pieces of multimedia content to be mixed together”).

We, therefore, determine that Petitioner has shown sufficiently that the asserted art teaches element 11 for purposes of institution.

k) Elements 1m and 1n

Element [1m] recites “selecting a privacy attribute for the recorded content.” Element [1n] recites “sending the recorded content to the host server, wherein the host server is configured to store multimedia content to facilitate access to other users according to the selected privacy attribute.” Relying on the testimony of Dr. Cooperstock, Petitioner argues that elements 1m and 1n are taught by Cohen’s disclosure relating to privacy attribute settings. Pet. 58–62 (citing, e.g., Ex. 1004 ¶¶ 42, 43, 47, 49, 64, 78, 90, 98, 109, 110, 116, 117, 121–126, 169, 179, 187, Figs. 1, 2; Ex. 1003 ¶¶ 345). At this early stage, except to the extent discussed above, Patent Owner does not dispute Petitioner’s showing for elements 1m and 1n. We preliminarily find that Petitioner’s argument is supported by the cited disclosures of Cohen. *See, e.g.*, Ex. 1004 ¶ 43 (describing that a “user can set the privacy attribute associated with the recorded track and/or video content”), ¶ 90 (describing that host server 200 includes audio/multimedia repository module 212 for storing content “after a video is recorded by the recording engine 206 or after mixed multimedia content is generated by the mixing module 210”), ¶ 109 (describing that “sharing module 218” is “any combination of hardware components and/or software agents able to manage, track, modify, and/or enforce the privacy attributes” and “may receive commands related to privacy attributes of user content”), ¶ 110 (describing that “sharing module 218 provides the recording user with privacy attribute settings”), ¶ 169 (describing that “saved content can have its own privacy settings”).

We, therefore, determine that Petitioner has shown sufficiently that the asserted art teaches elements 1m and 1n for purposes of institution.

l) Elements 1o, 1r, and 1s

Element [1o] recites “receiving a request to publish the recorded content.” Element [1r] recites “in response to the request to publish, processing and encoding individual components of the recorded content to create a streamable video.” Element [1s] recites “publishing the streamable video by copying the streamable video to a media server.”

Relying on the testimony of Dr. Cooperstock, Petitioner argues that elements 1o, 1r, and 1s are taught by Cohen’s disclosure of posting content online. Pet. 62–72 (citing, e.g., Ex. 1004 ¶¶ 64, 90–94, 102–105, 142–149, 208, Figs. 1, 2, 5B–5E; Ex. 1003 ¶¶ 369–418). Petitioner argues in the alternative elements 1o, 1r, and 1s are taught by Sherman, Chu, and Joslin. *Id.* (citing, e.g., Ex. 1005, 16:25–39; Ex. 1006 ¶¶ 23, 38, 41; Ex. 1007, 2:39–44, 3:36–44, 10:33–39, 11:61–67). Petitioner also presents an alternative ground relying on Austerberry. *Id.* at 66–72 (citing, e.g., Ex. 1014, 112–178, Figs. 1.4, 7.3, 7.4, 7.6). At this early stage, except to the extent discussed above, Patent Owner does not dispute Petitioner’s showing for elements 1o, 1r, and 1s.

We preliminarily find that Petitioner’s argument is supported by the cited disclosures of Cohen alone or in combination with Sherman, Chu, or Joslin. *See, e.g.*, Ex. 1004 ¶ 104 (describing posting “on his/her profile in an online social network,” such as “Facebook, MySpace, BlackPlanet, and WordPress.com”), ¶ 142 (describing that “multimedia playback, recording, and/or mixing” may be accessible “in a social networking site (e.g., Friendster, Facebook, Linkedin, etc.)”); Ex. 1005, 16:25–39 (describing that “MPEG (Moving Pictures Exports Group) is a standard for compressing full motion video” and after recording the karaoke performance, the data is directed to “MPEG converter 137” for conversion “to a MPEG format which

is a compressed version of the audio and video data that was stored on the hard disk 72”); Ex. 1006 ¶ 41 (describing that with improvements in video compression technology, such as MPEG 2 and MPEG 4, “online video distribution becomes more viable”); Ex. 1007, 2:39–44 (describing that the “digitally stored performance may also be modified and uploaded to a server for subsequent download by the participant via the Internet”), 3:36–44 (describing modifying “the format and resolution to a compressed digital video for internet video streaming, and uploading to a server for later download by the participant via the internet”), 10:33–39 (describing storing “a compressed video file (MPEG-2) of the participant’s performance”). We also preliminarily find Petitioner’s alternative ground is supported by the teachings of Austerberry. *See, e.g.*, Ex. 1014, 10–11, Fig. 1.4 (describing a summary of encoding content for streaming).

We, therefore, determine that Petitioner has shown sufficiently that Cohen alone or in combination with Sherman, Chu, or Joslin teaches elements 1o, 1r, and 1s for purposes of institution. We also determine that Petitioner has shown sufficiently that in the alternative Austerberry provides additional support for Petitioner’s position.

m) Conclusion

After consideration of the arguments and the evidence of record at this early stage, we determine that Petitioner has shown sufficiently, for purposes of institution, that the combination of Cohen, Chu, Sherman, and Joslin teaches all recitations in claim 1. We find that Petitioner shows sufficiently that Austerberry provides further support that claim 1 is unpatentable. Also, at this juncture, we are persuaded that Petitioner has articulated sufficiently persuasive reasoning, based on the evidence of record, as to why one of ordinary skill in the art would have made Petitioner’s proposed

combinations. Petitioner's arguments that a person having ordinary skill in the art would have had a reasonable expectation of success also are sufficient for purposes of institution. We find that Patent Owner's arguments do not undermine Petitioner's showing at this early stage.

Accordingly, we conclude that Petitioner has demonstrated a reasonable likelihood that it would prevail in showing that claim 1 is unpatentable under 35 U.S.C. § 103 as obvious over (1) the combination of Cohen, Chu, Sherman, and Joslin; and (2) the combination of Cohen, Chu, Sherman, Joslin, and Austerberry.

7. *Dependent Claims 2–9*

Petitioner asserts that claims 2–9 are unpatentable as obvious over the combination of Cohen, Chu, Sherman, and Joslin. Pet. 18, 28–32, 73–80. Petitioner asserts, in the alternative, that claims 2–9 are unpatentable as obvious over the combination of Cohen, Chu, Sherman, Joslin, and Austerberry. *Id.* at 18, 66–68, 87–88.

Petitioner provides a detailed analysis in support of its position that the combination of Cohen, Chu, Sherman, and Joslin teaches the limitations in these dependent claims. Petitioner also provides detailed contentions that Austerberry provides further evidence in support of Petitioner's position.

Patent Owner argues that the Petition ignores differences between the prior art and the features recited in the dependent claims and Petitioner does not provide rationale to combine. Prelim. Resp. 49–50. At this early stage, Patent Owner's argument is conclusory. We preliminarily find that Petitioner provides detailed analysis showing where the features recited in the dependent claims are found in the asserted prior art. Pet. 18, 28–32, 73–80. We also preliminarily find that Petitioner provides sufficient rationale to combine the teachings for purposes of institution. *Id.*

Accordingly, we conclude that Petitioner has demonstrated a reasonable likelihood that it would prevail in showing that claims 2–9 are unpatentable under 35 U.S.C. § 103 as obvious over (1) the combination of Cohen, Chu, Sherman, and Joslin; and (2) the combination of Cohen, Chu, Sherman, Joslin, and Austerberry.

8. *Independent Claim 10*

Independent claim 10 is similar to independent claim 1. Petitioner provides detailed contentions regarding all differences in the claims. Pet. 80–83. Patent Owner relies on the same arguments it presented for claim 1 and argues for “the features of independent claim 10 that are not present in independent claim 1, Petitioner addresses these features in the same manner as it addressed the dependent claims 2–9.” Prelim. Resp. 50–51. Patent Owner argues “[a]s stated previously, this is insufficient to establish obviousness.” *Id.* at 50–51.

At this early stage, Patent Owner’s argument is conclusory. We preliminarily find that Petitioner provides detailed analysis showing where the features recited in claim 10 are found in the asserted prior art. Pet. 18, 28–32, 80–83. We also preliminarily find that Petitioner provides sufficient rationale to combine the teachings for purposes of institution. *Id.*

After consideration of the arguments and the evidence of record at this early stage, we determine that Petitioner has shown sufficiently, for purposes of institution, that the combination of Cohen, Chu, Sherman, and Joslin teaches all recitations in claim 10. We find that Petitioner shows sufficiently that Austerberry provides further support that claim 10 is unpatentable. Also, at this juncture, we are persuaded that Petitioner has articulated sufficiently persuasive reasoning, based on the evidence of record, as to why one of ordinary skill in the art would have made Petitioner’s proposed

combinations. Petitioner’s arguments that a person having ordinary skill in the art would have had a reasonable expectation of success also are sufficient for purposes of institution. We find that Patent Owner’s arguments do not undermine Petitioner’s showing at this early stage.

Accordingly, we conclude that Petitioner has demonstrated a reasonable likelihood that it would prevail in showing that claim 10 is unpatentable under 35 U.S.C. § 103 as obvious over (1) the combination of Cohen, Chu, Sherman, and Joslin; and (2) the combination of Cohen, Chu, Sherman, Joslin, and Austerberry.

E. Unpatentability of Claim 11 under 35 U.S.C. § 103(a)

Petitioner asserts that claim 11 is unpatentable as obvious over the combination of Cohen, Chu, Sherman, Joslin, and Lei. Pet. 18, 83–87. Petitioner asserts, in the alternative, that claim 11 is unpatentable as obvious over the combination of Cohen, Chu, Sherman, Joslin, Lei, and Austerberry. *Id.* at 18, 66–68, 87–88.

We begin with an overview of Lei. We then turn to the parties’ contentions.

1. Lei

Lei is titled “Method and System for Processing Video Data.” Ex. 1008, code (54). Lei relates to processing video data with an intelligent video system. *Id.* ¶ 1. Lei describes displaying an image with trail lines 71, 73 that “represent the cumulative path taken by the objects over the course of a video segment leading up to the current frame.” *Id.* ¶ 114.

2. Claim 11

Independent claim 11 is similar to independent claim 1. Petitioner provides detailed contentions regarding all differences in the claims. Pet.

83–87. Patent Owner relies on the same arguments it presented for claim 1 and additionally argues the Petition is deficient with respect to the features in independent claim 11 that are not present in claim 1. Prelim. Resp. 51–52. Patent Owner’s argument is conclusory. We preliminarily find that Petitioner’s contentions for claim 11 account for all differences between claim 11 and claim 1. Additionally, we preliminarily find that Petitioner provides reasoning to combine Cohen, Chu, Sherman, Joslin, and Lei sufficient for purposes of institution.

After consideration of the arguments and the evidence of record at this early stage, we determine that Petitioner has shown sufficiently, for purposes of institution, that the combination of Cohen, Chu, Sherman, Joslin, and Lei teaches all recitations in claim 11. We find that Petitioner shows sufficiently that Austerberry provides further support that claim 11 is unpatentable. Also, at this juncture, we are persuaded that Petitioner has articulated sufficiently persuasive reasoning, based on the evidence of record, as to why one of ordinary skill in the art would have made Petitioner’s proposed combinations. Petitioner’s arguments that a person having ordinary skill in the art would have had a reasonable expectation of success also are sufficient for purposes of institution. We find that Patent Owner’s arguments do not undermine Petitioner’s showing at this early stage.

Accordingly, we conclude that Petitioner has demonstrated a reasonable likelihood that it would prevail in showing that claim 11 is unpatentable under 35 U.S.C. § 103 as obvious over (1) the combination of Cohen, Chu, Sherman, Joslin, and Lei; and (2) the combination of Cohen, Chu, Sherman, Joslin, Lei, and Austerberry.

V. CONCLUSION

For the foregoing reasons, we conclude that the information presented in the Petition establishes a reasonable likelihood that Petitioner would prevail in showing that claims 1–11 of the '911 patent are unpatentable.

VI. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that *inter partes* review of claims 1–11 of the '911 patent is hereby instituted on all grounds stated 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; the trial will commence on the entry date of this decision.

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