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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COMCAST CABLE COMMUNICATIONS, LLC,
Petitioner,

v.

ROVI GUIDES, INC.,
Patent Owner.

Case IPR2019-00555
Patent 9,668,014 B2

Before: KARL D. EASTHOM, LYNNE E. PETTIGREW, and BARBARA A. PARVIS, *Administrative Patent Judges*.

PARVIS, *Administrative Patent Judge*.

DECISION TO INSTITUTE
35 U.S.C. § 314

I. INTRODUCTION

Comcast Cable Communications, LLC, ("Petitioner") filed a Petition pursuant to 35 U.S.C. §§ 311–319 to institute an *inter partes* review of claims 1–20 of U.S. Patent No. 9,668,014 B2 (Ex. 1101, "the '014 Patent"). Paper 2 ("Pet."). Rovi Guides, Inc. ("Patent Owner") filed a Preliminary Response. Paper 6 ("Prelim. Resp.").

We apply the standard set forth in 35 U.S.C. § 314(a), which requires demonstration of "a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition."[1] Upon consideration of the parties' contentions and the evidence of record, we conclude Petitioner establishes a reasonable likelihood of prevailing in demonstrating the unpatentability of claims 1–20 of the '014 Patent. Accordingly, we grant Petitioner's request and institute an *inter partes* review of claims 1–20 of the '014 Patent and with respect to all grounds set forth in the Petition.

II. BACKGROUND

A. Real Parties-in-Interest

Petitioner identifies as the real parties-in-interest the following: Comcast Corp.; Comcast Business Communications, LLC; Comcast Cable Communications Management, LLC; Comcast Cable Communications, LLC; Comcast Financial Agency Corp.; Comcast Holdings Corp.; Comcast Shared Services, LLC; Comcast STB Software I, LLC; Comcast of Santa

[1] We have authority under 35 U.S.C. § 314 to determine whether to institute an *inter partes* review. *See* 37 C.F.R. § 42.4(a).

Maria, LLC; and Comcast of Lompoc, LLC. Pet. 1. Patent Owner names as the real parties-in-interest Rovi Guides, Inc. and Rovi Corp. Paper 3, 1.

B. Related Matters

As required by 37 C.F.R. § 42.8(b)(2), 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 '014 Patent is asserted in *Rovi Guides, Inc. v. Comcast Corp.*, Case No. 2-18-cv-00253 (C. D. Cal.) filed January 10, 2018. Pet. 1; Paper 3, 1. The parties also inform us that the '014 Patent was previously, but is no longer, asserted in *Digital Video Receivers and Related Hardware and Software Components*, Inv. No. 337-TA-1103 (ITC), filed February 8, 2018 ("related ITC proceeding"). *Id.*

Additionally, Petitioner filed four petitions, each requesting *inter partes* review of claims 1–20 of the '014 Patent, including the instant Petition. The four petitions are identified in an order issued May 21, 2019, which is discussed below in Section III.A with respect to Patent Owner's discretionary denial contentions. Paper 8 ("Case Management Order" or "Case Mgmt. Order").

C. The '014 Patent

The '014 Patent is directed to a media guidance application that identifies and stores portions of media assets based on user commands. Ex. 1101, 1:24–26. Figure 5 of the '014 Patent is reproduced below.

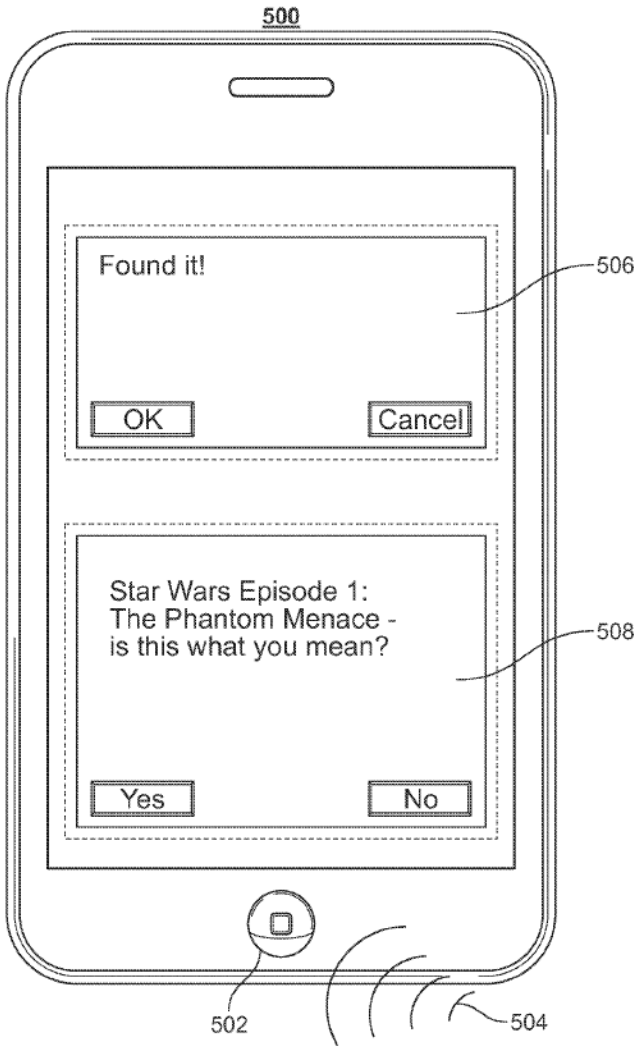

FIG. 5

Figure 5 of the ’014 Patent, above, illustrates user device 500 on which the media guidance application has been implemented. *Id.* at 21:41–46. User device 500 has microphone 502 for receiving user input and a display. *Id.* at 21:50–56, 22:1–3. Command 504 is received by microphone 502. *Id.* at 21:57. Storage confirmation message 506 and media asset identifier confirmation message 508 are shown on the display of user device 500. *Id.* at 22:2–7, Fig. 5.

D. Illustrative Claim

Petitioner challenges claims 1–20 of the '014 Patent. Pet. 1. Claims 1 and 11 are independent claims. Claims 2–10 and 12–20 depend, directly or indirectly, from claims 1 and 11, respectively. Independent claim 1, reproduced below, is illustrative of the claimed subject matter:

> 1. A method for resolving a voice command for a media asset, where the voice command does not expressly name the media asset, the method comprising:
>
> receiving a voice command from a user, wherein the voice command comprises a media asset identifier corresponding to a media asset;
>
> accessing a database comprising a plurality of known media asset identifiers;
>
> comparing the media asset identifier with each known media asset identifier of the plurality of known media asset identifiers;
>
> determining, based on the comparing, whether the media asset identifier completely matches any known media asset identifier of the plurality of known media asset identifiers;
>
> based on determining that the media asset identifier does not completely match any known media asset identifier of the plurality of known media asset identifiers, calculating a degree of similarity between the media asset identifier and each known media asset identifier of the plurality of known media asset identifiers;
>
> determining that the degree of similarity for a respective known media asset identifier of the plurality of known media asset identifiers exceeds a threshold;
>
> based on determining that the degree of similarity for the respective known media asset identifier exceeds the threshold, selecting the respective known media asset identifier to be a suggested media asset identifier; and

providing to the user an option to confirm that the suggested known media asset identifier corresponds to the media asset.

Ex. 1101, 48:47–49:10.

E. Evidence Relied Upon

Petitioner relies on the following references:

U.S. Patent No. 8,316,394 B2, filed December 10, 2009, issued November 20, 2012 (Ex. 1104, "Yates");

DANIEL JURAFSKY & JAMES H. MARTIN, SPEECH AND LANGUAGE PROCESSING, AN INTRODUCTION TO NATURAL LANGUAGE PROCESSING, COMPUTATIONAL LINGUISTICS, AND SPEECH RECOGNITION (Prentice-Hall, Inc. 2000) (Ex. 1107, "Jurafsky");

U.S. Patent Application Publication No. US 2008/0319990 A1, filed June 11, 2008, published December 25, 2008 (Ex. 1123, "Taranenko");

WALLACE WANG, BEGINNING PROGRAMMING FOR DUMMIES (John Wiley & Sons, Inc. 4th ed. 2007) (Ex. 1116, "Wang");

JÉRÔME EUZENAT & PAVEL SHVAIKO, ONTOLOGY MATCHING (Springer-Verlag 2007) (Ex. 1106, "Euzenat");

Affidavit of Mr. Wade Warren dated September 27, 2018 (Ex. 1105, "Alberca"); and

U.S. Patent Application Publication No. US 2010/0333137 A1, filed June 30, 2009, published December 30, 2010 (Ex. 1109, "Hamano").

Additionally, Petitioner relies on the Declaration of Dr. Edward A. Fox. Ex. 1102. Patent Owner relies on the Declaration of Mr. John Tinsman. Ex. 2001.

F. Grounds Asserted

Petitioner asserts the following grounds of unpatentability (Pet. 13–14):

Claim Challenged	Basis	Reference(s)
1, 4, 6–8, 11, 14, and 16–18	§ 102	Yates
1, 4, 6–8, 11, 14, and 16–18	§ 103	Yates
1, 4, 6–8, 11, 14, and 16–18	§ 103	Yates and Jurafsky
2 and 12	§ 103	Yates, Taranenko, and Wang
2 and 12	§ 103	Yates, Jurafsky, Taranenko, and Wang
2 and 12	§ 103	Yates, Euzenat, and Wang
2 and 12	§ 103	Yates, Jurafsky, Euzenat, and Wang
2 and 12	§ 103	Yates, Alberca, and Wang
2 and 12	§ 103	Yates, Jurafsky, Alberca, and Wang
3 and 13	§ 103	Yates, Jurafsky, and Wang
5, 9, 15, and 19	§ 103	Yates and Hamano
5, 9, 15, and 19	§ 103	Yates, Jurafsky, and Hamano
10 and 20	§ 103	Yates and Wood
10 and 20	§ 103	Yates, Jurafsky, and Wood

Petitioner asserts that the earliest effective filing date of the '014 patent is March 30, 2015. Pet. 14. The '014 Patent's filing date is after the effective date set for the AIA's changes to § 112.[2] Petitioner further asserts the references qualify as prior art at least under 35 U.S.C. § 102(a)(1). Pet. 14.

III. DISCUSSION

A. Discretionary Denial Arguments

Patent Owner asserts we should exercise our discretion to deny the Petition under 35 U.S.C. § 314(a) because, according to Patent Owner, applying the factors enumerated in *General Plastic Industrial Co. v. Canon Kabushiki Kaisha*, Case IPR2016-01357, slip op. at 9–10 (PTAB Sept. 6, 2017) (Paper 19) ("*General Plastic*") (precedential as to § II.B.4.i), to the four concurrently filed petitions supports exercising discretion to the deny all four petitions. Prelim. Resp. 51–58. On May 21, 2019, we issued a Case Management Order requiring that Petitioner provide a Notice ranking the four petitions in the order in which it wishes the panel to consider the merits in the event that the Board uses its discretion to institute any of the petitions. The Case Management Order also required that Petitioner provide a succinct explanation of the differences between the petitions, why the differences are material, and why the Board should exercise its discretion to consider instituting on more than one petition. Case Mgmt. Order 4. We additionally gave the Patent Owner an opportunity to respond.

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[2] *See* § 4(e) of the Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284, 297 (2011) ("AIA").

Pursuant to our Case Management Order, Petitioner requests we consider the Petition in the instant proceeding first. Paper 9, 1. Patent Owner does not take a position on the relative strength of the petitions beyond what is set forth in the Preliminary Responses. Paper 10, 5. For the reasons given herein, we conclude in the instant proceeding that Petitioner establishes a reasonable likelihood of prevailing in demonstrating the unpatentability of claims 1–20 of the '014 Patent. We address in a separate decision Petitioner's less-preferred petitions, IPR2019-00556, IPR2019-00557, and IPR2019-00558.

We also find the circumstances in this case do not warrant denying the instant Petition, because that would deny Petitioner even one petition. Accordingly, we decline to exercise our discretion to deny institution under 35 U.S.C. § 314(a).

B. Principles of Law Relating to Anticipation and Obviousness

To establish anticipation, each and every element in a claim, arranged as recited in the claim, must be found in a single prior art reference. *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008). "To anticipate a claim, a prior art reference must disclose every limitation of the claimed invention, either explicitly or inherently." *In re Schreiber*, 128 F.3d 1473, 1477 (Fed. Cir. 1997).

A patent claim is unpatentable 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. 35 U.S.C. § 103. The question of obviousness is resolved on the basis of

underlying factual determinations, including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) objective evidence of nonobviousness, i.e., secondary considerations. *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). When evaluating a combination of teachings, we also "determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (citing *In re Kahn*, 441, F.3d 977, 988 (Fed. Cir. 2006)). We analyze the grounds based on obviousness in accordance with the above-stated principles.

C. Level of Ordinary Skill

Petitioner contends, relying on the testimony of Dr. Fox, that a person having ordinary skill in the art would have had a bachelor's degree in electrical engineering, computer engineering, computer science, applied mathematics, or a similar discipline, as well as two or more years of relevant industry or research experience, including in data search techniques or natural language processing. Pet. 12–13 (citing Ex. 1102 ¶ 46). Patent Owner offers a slightly different proposed level of ordinary skill, contending that such person would have had the same education proposed by Petitioner, but such person's relevant industry or research experience would have been in electronic content delivery, electronic program guides, television video signal processing, graphical user interfaces, cable or satellite television systems, set-top boxes, multimedia systems, or data search techniques. Prelim. Resp. 15 (citing Ex. 2001 ¶ 27). At this juncture, we see no material

difference in the proposals. We adopt Petitioner's proposed level for the purposes of determining whether to institute an *inter partes* review.

D. Claim Construction

A recent amendment to 37 C.F.R. § 42.100(b) changing the claim construction standard applies here because the Petition was filed after November 13, 2018, the effective date of the amendment. *See* Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51,340 (Oct. 11, 2018). Thus, for this *inter partes* review, the Board applies the same claim construction standard as that applied in federal courts. *See* 37 C.F.R. § 42.100(b).

1. The Parties' Contentions

Petitioner contends that the terms "media asset," "command," "media asset identifier," and "device identifier" "should be given their definitions provided in the patent." Pet. 17–18. Petitioner also contends that "communications circuitry" and "control circuitry" recited in claim 11 are means-plus-function terms. *Id.* at 18–19.

Patent Owner contends that no terms need to be construed at this stage of the proceeding. Prelim. Resp. 15. Patent Owner, however, provides implied constructions for "provid[ing/e] to the user an option to confirm" and "provid[ing/e] to the user a prompt requesting confirmation," recited in claims 1 and 11 and dependent claims 6 and 16, respectively. Prelim. Resp. 17–19, 33–35 (citing, *e.g.*, Ex. 2001 ¶¶ 59–61; Ex. 2004, 878; Ex. 1101, 46:28–37, Fig. 5).

2. Discussion of Petitioner's Contentions

The '014 Patent provides definitions for the terms "media asset," "command," "media asset identifier," and "device identifier" that are the same as those set forth in the Petition. Pet. 17–18 (citing Ex. 1101, 6:31–41, 20:36–49, 21:4–5, 21:23–27; Ex. 1102 ¶¶ 87–90). At this preliminary stage in the proceeding, we are persuaded by Petitioner regarding those definitions.

Petitioner's contentions that "communications circuitry" and "control circuitry" recited in claim 11 are means-plus-function terms, however, are conclusory. *See id.* at 18–20. Claims that include the language "means" or "means for" are presumed to invoke 35 U.S.C. § 112 (f). *See Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1348–49 (Fed. Cir. 2015) (en banc in relevant part) ("[U]se of the word 'means' creates a presumption that § 112, ¶ 6 applies.").[3] "[T]he failure to use the word 'means' also creates a rebuttable presumption—this time that § 112, ¶ 6 does not apply." *Id.* The terms "communications circuitry" and "control circuitry" do not contain the language "means" or "means for." Petitioner does not explain sufficiently why those terms should be construed as means-plus-function terms. Even though Petitioner has not made much of a showing as to why the terms should be construed as means-plus-function terms, Petitioner has provided a construction of these terms under § 112(f) in compliance with 37 C.F.R. § 42.104(b)(3). At this preliminary stage in the proceeding, therefore, because we do not have responsive contentions from Patent Owner (Prelim.

[3] The '014 Patent's filing date is after the effective date set for the AIA's changes to § 112. AIA § 4(e).

Resp. 15) and Petitioner has established a reasonable likelihood of prevailing under the narrower means-plus-function construction for the reasons discussed below in Section III.E.5, we proceed on the basis that "communications circuitry" and "control circuitry" recited in claim 11 are means-plus-function terms, and we use Petitioner's identified functions and corresponding structures disclosed in the '014 Patent Specification for those terms.

3. Discussion of Patent Owner's Contentions

At this preliminary stage in the proceeding, we are not persuaded by Patent Owner regarding its implied construction for "provid[ing/e] to the user an option to confirm." Prelim. Resp. 17–19, 33–35 (citing, *e.g.*, Ex. 2001 ¶¶ 59–61; Ex. 1101, 46:28–37, Fig. 5). "Option" means something that may be chosen, e.g., a choice or an alternative. *See, e.g.*, Merriam-Webster.com, https://www.merriam-webster.com/dictionary/option (last visited June 30, 2019) (providing a dictionary definition of "option"). At this preliminary stage, Patent Owner identifies as support only a single figure in the '014 Patent, i.e., Figure 5, along with supporting textual description that message 508 may be a displayed visual message or a played audio message. Prelim. Resp. 18–19 (citing Ex. 1101, 46:28–37, Fig. 5). The '014 Patent also describes "a selectable option provided in a display screen" as including "a menu option," "a listings option," "an icon," "a hyperlink," and "a dedicated button . . . on a remote control." Ex. 1101, 7:58–63. At this preliminary stage, we are not persuaded that "an option to confirm" is limited to confirmation message 508, to the exclusion of these other exemplary selectable options described in the '014 Patent.

Accordingly, based on the record at this juncture, we are not persuaded to limit "option to confirm" to confirmation message 508 as Patent Owner implicitly proposes. Instead, we apply the ordinary and customary meaning, namely "option" is a selectable choice and includes exemplary selectable options described in the '014 Patent, as well as message 508. *Id.* at 7:58–63, 46:28–37.

Similarly, even using Patent Owner's asserted ordinary and customary meaning, at this preliminary stage in the proceeding, we are not persuaded to adopt Patent Owner's implied construction for "provid[ing/e] to the user a prompt requesting confirmation" recited in claims 6 and 16. "Prompt" means "[a] symbol or message displayed by a computer system requesting input from the user of the system." Ex. 2004, 878 (cited at Prelim. Resp. 35). Patent Owner points to message 508 as well as description in the '014 Patent of purchasing a media asset. Prelim. Resp. 33–35 (citing, *e.g.*, Ex. 1101, 24:4–7, 25:11–18, 25:18–23, 25:62–65, 31:52–61, 32:58–63, Fig. 5). We are not persuaded that "prompt" is restricted to the format of message 508 in the '014 Specification and we are not persuaded that a user must purchase a media assert to confirm. Instead, we apply Patent Owner's ordinary and customary meaning, namely "prompt" is a symbol or message requesting input from the user.

We determine that, at this stage of the proceeding, no other terms recited in claims 1, 6, 11, or 16 need to be construed expressly to resolve the disputes between the parties. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co. Ltd.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (noting that "we need only construe terms 'that are in controversy, and only to the extent necessary to resolve the controversy'") (citing *Vivid Techs., Inc. v. Am. Sci.*

& Eng'g, Inc., 200 F.3d 795, 803 (Fed. Cir. 1999)), *cert. denied*, 138 S. Ct. 1695 (April 30, 2018).

E. Unpatentability—Claims 1, 4, 6–8, 11, 14, and 16–18

Petitioner contends each of claims 1, 4, 6–8, 11, 14, and 16–18 of the '014 Patent is unpatentable, under 35 U.S.C. § 102, as anticipated by Yates. Pet. 13, 20.[4] Petitioner also contends each of claims 1, 4, 6–8, 11, 14, and 16–18 of the '014 Patent is unpatentable, under 35 U.S.C. § 103, as obvious over (1) Yates; and (2) the combination of Yates and Jurafsky. *Id.* at 13. Patent Owner opposes. *See generally* Prelim. Resp. In our discussion below, we first provide a brief overview of the prior art, and then we address the parties' contentions in turn.

1. Overview of Yates

Yates is directed to an interactive media guidance application. Ex. 1104, 1:7–8. Figure 1 of Yates is reproduced below.

[4] Petitioner asserts that Yates is prior art at least under 35 U.S.C. § 102(a)(1). *Id.* at 14.

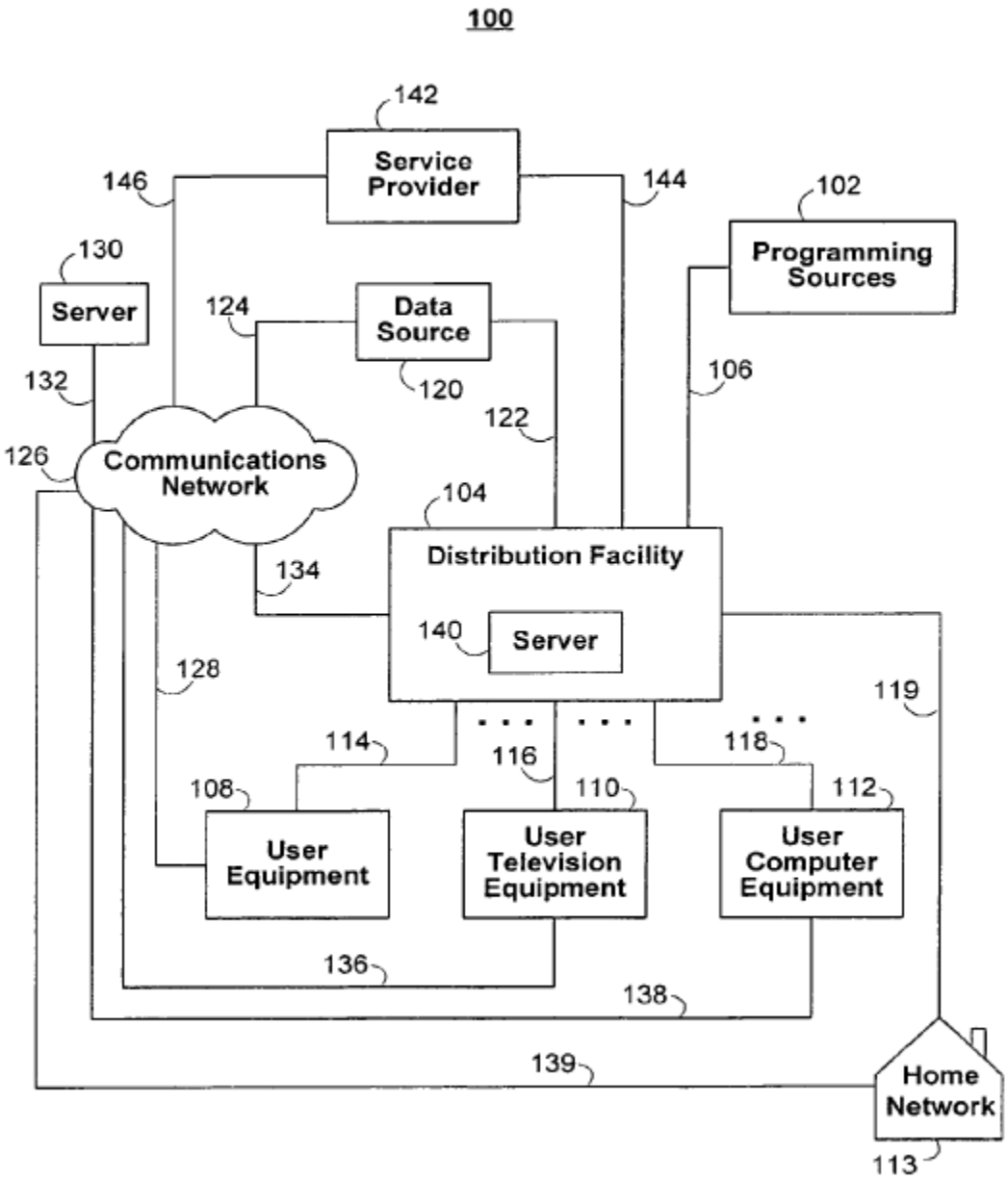


FIG. 1

Figure 1 of Yates, above, illustrates interactive media guidance system 100. *Id.* at 5:62–63.

Interactive media guidance system 100 includes programming sources 102 and distribution facility 104 that are connected by communications path 106, which is used to provide media such as television programming and digital music from programming sources 102 to distribution facility 104. *Id.*

at 6:6–10. Distribution facility 104 is connected to user equipment devices 108, 110, and 112, located, for example, in the homes of users to provide media, which is sent over communications paths 114, 116, and 118. *Id.* at 6:36–38. Guidance data from data source 120 may be provided to user equipment 108, 110, and 112 by a guidance application client residing on user equipment 108, 110, and 112 initiating sessions with server 140 within distribution facility 104. *Id.* at 8:22–27.

Service provider 142 has sales representatives, order fulfillment facilities, account maintenance facilities, and other equipment for supporting interactive features. *Id.* at 10:39–47. User equipment 108, 110, and 112 may access service provider 142 via distribution facility 104 and communications path 144 or via communications network 126 and communications path 146. *Id.*

2. Overview of Jurafsky

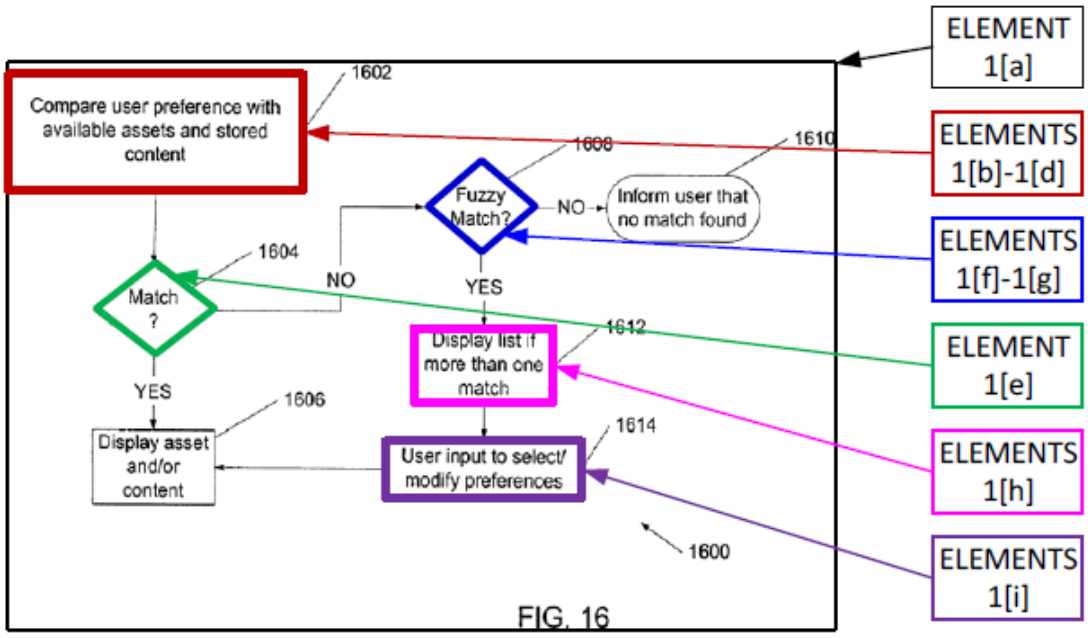
Jurafsky describes speech and language processing. Ex. 1107, 26. For example, Jurafsky describes sampling and quantization for digitizing soundwaves for speech recognition. *Id.* at 282–288.

3. Discussion of Independent Claim 1—Anticipation

Petitioner contends that claim 1 is unpatentable, under 35 U.S.C. § 102, as anticipated by Yates. Pet. 13, 20–28. The dispute between the parties centers on whether Yates describes "providing to the user an option to confirm that the suggested known media asset identifier corresponds to the media asset" recited in claim 1. Prelim. Resp. 16–27; Pet. 13, 20–28. Upon review of the evidence in the current record and the parties' contentions at this preliminary stage in the proceeding, we determine

that Petitioner has shown sufficiently for purposes of this Decision how Yates alone describes each limitation of claim 1, including the disputed recitation.

Starting with the preamble, i.e., "[a] method for resolving a voice command for a media asset, where the voice command does not expressly name the media asset, the method comprising" (Ex. 1101, 48:47–49), which Petitioner refers to as element 1[a], Petitioner takes the position "[t]o the *extent the preamble is limiting*, Yates discloses this feature." Pet. 20 (emphasis added). Petitioner points to Yates's interactive media guidance application for receiving a user preference and related teachings. Pet. 20–23 (citing, *e.g.*, Ex. 1104, 2:19–28, 15:4–9, 16:18–23, 18:17–21, 20:36–49, 24:50–57, 25:27–27:12, Figs. 10, 14, 16; Ex. 1102 ¶¶ 212–219). Relying on the testimony of Dr. Fox, Petitioner also provides an overview showing where each element recited in claim 1 is taught in Yates Figure 16, for example. *Id.* at 22 (citing Ex. 1102 ¶¶ 215–216).



Ex. 1104, Fig. 16 (annotated)

Figure 16 of Yates, above, illustrates details of processing a comparison of the user preference with available assets, with Petitioner's annotations of red, green, blue, pink, and purple to highlight steps 1602, 1604, 1608, 1612, and 1614, respectively. Ex. 1102 ¶ 215 (citing, *e.g.*, Ex. 1104, Fig. 16). Petitioner's annotations include identifying the entirety of Figure 16 with the annotation "ELEMENT 1[a]." *Id.*

Patent Owner does not provide contentions responding to or disputing Petitioner's contentions regarding element 1[a]. Prelim. Resp. 16–17. Upon consideration of the Petition, the Preliminary Response, and the evidence of record, we determine Petitioner makes a sufficient showing, at this stage in the proceeding, that Yates describes element 1[a]. We, therefore, need not determine whether the preamble is limiting for purposes of this Decision.

We turn to the next limitations, "receiving a voice command from a user, wherein the voice command comprises a media asset identifier

corresponding to a media asset," "accessing a database comprising a plurality of known media asset identifiers," and "comparing the media asset identifier with each known media asset identifier of the plurality of known media asset identifiers" (Ex. 1101, 48:50–57), which Petitioner refers to as elements 1[b], 1[c], and 1[d], respectively. Pet. 23–25.

For element [1b], Petitioner points to Yates's "'user preference' search string." Pet. 23–24 (citing, *e.g.*, Ex. 1104, 2:19–28, 2:54–64, 24:50–57, 25:27–27:12, 28:34–35, Figs. 10, 14, 16; Ex. 1102 ¶¶ 220–221). For element [1c], Petitioner points to data source 120. *Id.* at 24 (citing, *e.g.*, Ex. 1104, 7:53–64, 8:22–27, 8:54–64, 17:47–51, 25:27–62, 25:63–27:12, Figs. 14–16; Ex. 1102 ¶¶ 222–224). For element 1[d], Petitioner points to Yates's comparison of the user preference with identifiers stored in data source 120 to determine a match. *Id.* at 25 (citing, *e.g.*, Ex. 1104, 2:58–61, 21:63–22:5, 26:38–49, 27:5–12, 28:29–48, Figs. 14–16; Ex. 1102 ¶¶ 225–226).

Yates, for example, describes initiating a function or display by issuing a voice recognition command. Ex. 1104, 24:53–57. Yates further describes a user preference (*id.* at 25:42–43), which may be "a list of keywords, search strings, or the like" (*id.* at 2:22). That user preference is then compared with "certain identifiers or other information, such as titles, names of performers or actors, venues, etc., in the interactive media guidance application (supplied, for example, by data source **120**–FIG. **1**)." *Id*. at 25:45–48.

Figure 15 of Yates is reproduced below.

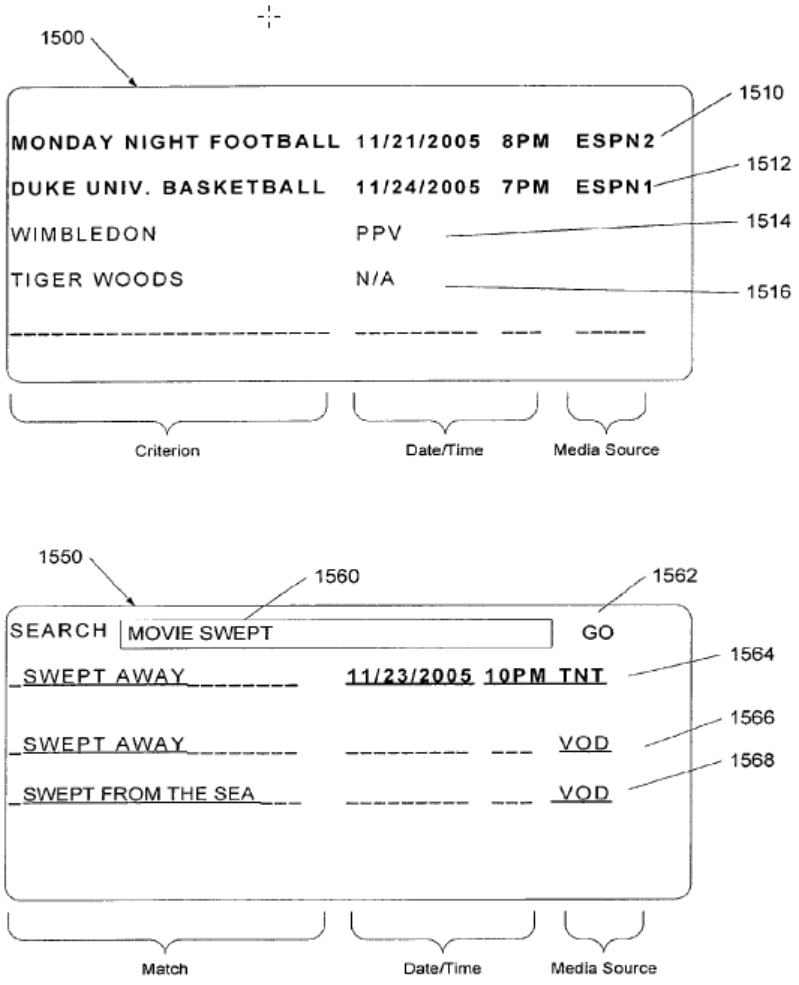


FIG. 15

Figure 15 of Yates, above, illustrates screen shots 1500 and 1550. *Id*. at 25:63–64. Screen shot 1500 displays two scheduled sports events—Monday Night Football and Basketball from Duke University 1512. *Id*. at 25:65–26:3. Screen shot 1550 shows a user preference opened in a separate search window. *Id*. at 25:63–64. The search window is accessed by pressing a SEARCH button on remote control 400 and typing on a keyboard. *Id*. at 26:23–33. Screen shot 1550 depicts an exemplary user preference, i.e., "MOVIE SWEPT" and matches, i.e., "SWEPT AWAY" and "SWEPT FROM THE SEA." *Id*. at Fig. 15.

In Petitioner's annotated Figure 16, reproduced above in the discussion of element 1[a], Petitioner identifies step 1602 with respect to "ELEMENTS 1[b]–1[d]." Ex. 1102 ¶ 215 (citing Ex. 1104, Fig. 16). Yates describes step 1602 as "[c]ompare user preference with available assets and stored content." Ex. 1104, Fig. 16. Yates, more specifically, describes

> [a]t step **1602**, the smart feature compares the user preference with available assets and/or stored content. As mentioned above, the term "user preference" in the context of the present invention refers to, for example, to an explicit or implicit indication that a user has interest in the asset. An explicit indication may include active user input, such as a selection of the asset or a search string describing an asset, whereas an implicit indication may be based on the frequency with which a user views a particular asset or an asset related to a particular asset.

Id. at 26:38–49.

Patent Owner does not address the above contentions with respect to claim elements 1[b], 1[c], and 1[d]. Upon consideration of the Petition, the Preliminary Response, and the evidence of record, we determine Petitioner makes a sufficient showing, at this stage in the proceeding, that Yates describes elements 1[b], 1[c], and 1[d].

We now turn to

> determining, based on the comparing, whether the media asset identifier completely matches any known media asset identifier of the plurality of known media asset identifiers;
>
> based on determining that the media asset identifier does not completely match any known media asset identifier of the plurality of known media asset identifiers, calculating a degree of similarity between the media asset identifier and each known media asset identifier of the plurality of known media asset identifiers;

> determining that the degree of similarity for a respective known media asset identifier of the plurality of known media asset identifiers exceeds a threshold;

(Ex. 1101, 48:58–49:3), which Petitioner refers to as elements 1[e], 1[f], and 1[g], respectively. Pet. 25–26.

Referring again to Petitioner's annotated Figure 16, reproduced above, Petitioner identifies step 1604, i.e., "Match?" for "ELEMENT 1[e]" and step 1608 for "ELEMENTS 1[f]–1[g]." Ex. 1102 ¶ 215 (citing Ex. 1104, Fig. 16). Step 1608, i.e., "Fuzzy Match?" follows a determination that "NO" match results from the comparison. Ex. 1104, Fig. 16. Additionally for elements 1[e] through 1[g], Petitioner points to related description in Yates of checking if a fuzzy match exists and using a scoring function for computing fuzziness. Pet. 25–27 (citing Ex. 1104, 2:21–28, 25:27–27:12, 28:38–48, Figs. 14–16; Ex. 1102 ¶¶ 227–229).

Yates, for example, describes

> [c]onversely, at step **1604**, if it is determined that no exact match exists between the user preference and an asset or stored content, then it is checked, at step **1608**, if at least a partial (fuzzy) match exists. The degree or fuzziness of a match can be computed using a suitable scoring function, for example, a cost function or relevance score. A suitable threshold value can be preset, whereby the match is considered reliable, if the score of the match exceeds the preset threshold value.

Ex. 1104, 26:58–66.

Patent Owner does not address the above contentions with respect to claim elements 1[e], 1[f], and 1[g]. Upon consideration of the Petition, the Preliminary Response, and the evidence of record, we determine Petitioner makes a sufficient showing, at this stage in the proceeding, that Yates describes elements 1[e], 1[f], and 1[g].

Lastly, we turn to

> based on determining that the degree of similarity for the respective known media asset identifier exceeds the threshold, selecting the respective known media asset identifier to be a suggested media asset identifier; and
>
> providing to the user an option to confirm that the suggested known media asset identifier corresponds to the media asset.

Ex. 1101, 49:4–10, which Petitioner refers to as elements 1[h] and 1[i], respectively. Pet. 27–28.

In Petitioner's annotated Figure 16, Petitioner identifies steps 1612 and 1614 with respect to elements 1[h] and 1[i], respectively. Ex. 1102 ¶ 215 (citing Ex. 1104, Fig. 16). Step 1612 is "[d]isplay list if more than one match" and step 1614 is "[u]ser input to select/modify preferences." Ex. 1104, Fig. 16. Petitioner also points to description in Yates relating to displaying identifiers having a relevance score greater than a preset threshold in a list for selection by the user. Pet. 27–28 (citing, *e.g.*, Ex. 1104, 1:67–2:4, 2:17–28, 2:41–45, 5:52–59, 20:5–38, 21:3–34, 25:27–27:12, 28:42–46, 29:64–67, Figs. 9–16; Ex. 1102, ¶¶ 230–239).

Yates, for example, describes

> [I]f the score of the match at step **1608** exceeds the threshold value, possibly with more than one entry providing a match, then a list with options may be displayed to the user, at step **1612**. The user can select potentially matching entries from that list, or the user can modify the preference, step **1614**.

Ex. 1104, 27:5–11. Yates also describes displaying "in the user selected first cell, a video asset having the greatest score indicative of relevance to the user." *Id.* at 28:45–46; *see also id.* at 25:50–55 (describing displaying "the asset with the greatest relevance").

Patent Owner disputes that Yates describes "*providing to the user an option to confirm that the suggested known media asset identifier corresponds to the media asset*." Prelim. Resp. 16–27. For instance, Patent Owner contends "Yates's search function only provides a user a list of search results—the search results do **not** provide the user with an option to confirm." *Id.* at 20 (citing, *e.g.*, Ex. 2001 ¶ 64). Patent Owner acknowledges that Yates describes user selection of the search results, but contends "without a confirmation step as claimed in the '014 patent, Yates is unable to confirm that the search results are accurate." *Id.* Patent Owner's contentions (*id.* at 16–27) are premised on its implied construction for "option to confirm" that we decline to adopt at this preliminary stage in the proceeding for the reasons given in Section III.D.3. The testimony of Patent Owner's declarant, Mr. Tinsman, also is based on Patent Owner's construction.

As discussed in Section III.D.3, we apply the ordinary and customary meaning of "option to confirm"; namely, "option" is a selectable choice and includes exemplary selectable options described in the '014 Patent such as "a selectable option provided in a display screen" as including "a menu option," "a listings option," "an icon," "a hyperlink," and "a dedicated button . . . on a remote control" (Ex. 1101, 7:58–63), as well as message 508. Yates, for instance, describes displaying "options" and states that "[t]he user *can select potentially matching entries*" from those options. Ex. 1104, 27:5–11 (emphasis added). Yates also describes filtering assets to remove assets having scores below a threshold value and displaying in the user-selected first cell a video asset having the greatest score. *Id.* at 28:29–48. Additionally, Yates describes interactive features with respect to Figures

8 and 10 illustrating display screens divided into a "mosaic" or user selectable cells (*id.* at 20:9–10, 23:12–15) that allow a user to navigate and select features such as recording a video broadcast currently showing, ordering merchandise associated with the current program, playing a 30-second preview, or viewing bonus features including alternative endings and commentaries. *Id.* at 20:30–38, 21:3–34, 25:50–55, Figs. 8, 10.

After weighing Petitioner's arguments and evidence, including the testimony of Dr. Fox (*see, e.g.*, Ex. 1102 ¶¶ 234–239), and Patent Owner's arguments and evidence, including the testimony of Mr. Tinsman (*see, e.g.*, Ex. 2001 ¶¶ 59–75), we are persuaded Petitioner's showing is sufficient at this preliminary stage. Upon consideration of the Petition, the Preliminary Response, and the evidence of record, we determine Petitioner makes a sufficient showing, at this stage in the proceeding, that Yates describes elements 1[h] and 1[i].

In summary, based on the record at this preliminary stage, we are persuaded by Petitioner's showing for all recitations in claim 1. Accordingly, for the reasons given and on the record before us at this juncture, we determine that Petitioner has shown a reasonable likelihood that it would prevail in establishing that claim 1 is anticipated by Yates.

4. Discussion of Independent Claim 1—Obviousness

Petitioner also contends that claim 1 of the '014 Patent is unpatentable, under 35 U.S.C. § 103, as obvious over Yates alone and over the combination of Yates and Jurafsky. Pet. 13, 42–47. Petitioner points to Jurafsky's teaching of voice recognition for element 1[b]. Pet. 43–45 (citing, *e.g.*, Ex. 1107, 170, 262–296; Ex. 1102 ¶¶ 123–129, 291–293).

Additionally, Petitioner points to Jurafsky's teaching of calculating a degree of similarity for element 1[f]. Pet. 45–47 (citing, *e.g.*, Ex. 1107, 323–324; Ex. 1102 ¶¶ 130–134, 294–296).

We determine Petitioner has shown sufficiently for purposes of this Decision how Yates alone or in combination with Jurafsky teaches elements 1[b] and 1[f]. Furthermore, at this preliminary stage in the proceeding, we are persuaded that Petitioner has offered articulated reasoning with a rational underpinning as to why one of ordinary skill in the art would have modified and combined the teachings of the asserted art in the manner proposed by Petitioner. *See, e.g.*, Pet. 43–47 (citing, *e.g.*, Ex. 1102 ¶¶ 123–134, 291–296). Patent Owner does not argue separately Petitioner's obviousness contentions. Prelim. Resp. 17–27. Accordingly, for the reasons given and on the record before us at this juncture, we determine that Petitioner has shown a reasonable likelihood that it would prevail in establishing that claim 1 would have been obvious over Yates alone and the combination of Yates and Jurafsky.

5. Discussion of Independent Claim 11

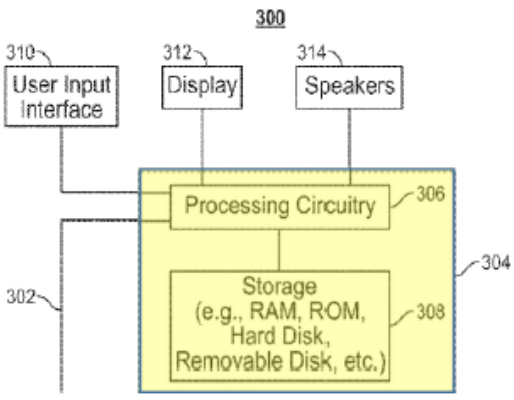
Independent claim 11 of the '014 Patent is similar to independent claim 1. Petitioner's showing for anticipation with respect claim 11 is similar to its showing with respect to claim 1 and, indeed, Petitioner references its contentions for claim 1. *Compare* Pet. 28–33, 47–48 *with id.* at 20–28, 42–47.

Petitioner accounts sufficiently for all differences between claims 1 and 11. For instance, regarding "communications circuitry" recited in claim 11, which we treat as a means-plus-function term for the reasons discussed

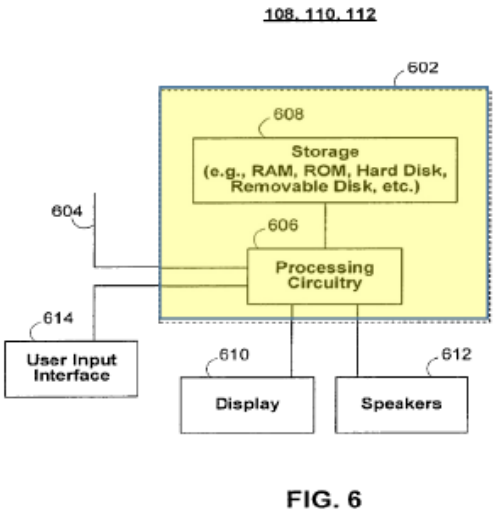
above in Section III.D.2, Petitioner contends "Yates describes voice recognition interface circuitry, infrared (IR) communications circuitry, a cable modem, an integrated services digital network (ISDN) modem, a digital subscriber line (DSL) modem, a telephone modem, a wireless modem, or a satellite receiver user equipment, such as in a mobile phone, personal computer, set-top box, or recording device, which (as recited in 11[d]) are used to receive a voice command from a user." Pet. 29–30 (citing, *e.g.*, Ex. 1104, 4:48–52, 6:41–46, 12:8–11, 12:64–13:11, 13:23–30, 14:7–9, 14:34–48, 15:4–9, 16:16–23, 16:29–34, 17:37–51, 18:17–21, Figs. 1–6; Ex. 1102 ¶¶ 265–266). Yates, for example, describes "media guidance applications may be provided as on-line applications (i.e., provided on a web-site), or as stand-alone applications or clients on hand-held computers, personal digital assistants (PDAs) or cellular telephones" (Ex. 1104, 4:48–52), "handheld video players, gaming platforms" (*id.* at 6:43–44), "[s]et-top box 204" (*id.* at 12:8–11), and "[r]ecording device 206" (*id.* at 13:23), such as "a digital video recorder (DVR)" (*id.* at 13:61–63) that may have IR circuitry to communicate with a remote control and a modem to communicate with the Internet or other network (*id.* at 14:34–48).

Regarding "control circuitry" recited in claim 11, which we treat as a means-plus-function term for the reasons discussed above in Section III.D.2, Petitioner points to Yates's control circuitry 602 and contends it "is identical to the corresponding structure described in the '014 patent that performs the functions in steps 11[d]–11[k] (*supra* §§ VI.A.1.ii-ix)" and "even if not identical," "Yates's control circuitry is at least equivalent." Pet. 32–33 (citing, *e.g.*, Ex. 1102 ¶¶ 274–276). Relying on the testimony of Dr. Fox, Petitioner provides annotated versions of Figure 3 of the '014 Patent and

Figure 6 of Yates shown side-by-side for comparison, reproduced below. Pet. 32.



Ex. 1101, Fig. 3 (annotated)



Ex. 1104, Fig. 6 (annotated)

Figure 3 of the ’014 Patent, above, illustrates user equipment device 300 having control circuitry 304 (Ex. 1101, 11:24–35) annotated by Petitioner with yellow highlighting, and Figure 6 of Yates, above, illustrates user equipment 108, 110, and 112 each having control circuitry 602 (Ex. 1104, 17:33–36) also annotated by Petitioner with yellow highlighting. More specifically, Petitioner highlights (1) control circuitry 304 having processing circuitry 305 and storage 308 shown in Figure 3 of the ’014 Patent; and (2) control circuitry 602 having processing circuitry 606 and storage 608 shown in Figure 6 of Yates, and Petitioner asserts those structures are identical. Pet. 32–33 (citing, *e.g.*, Ex. 1102 ¶¶ 274–276; Ex. 1101, Fig. 3; Ex. 1104, Fig. 6). In the portions of the ’014 Patent identified by Petitioner, the ’014 Patent describes processing performed by control circuitry 304, i.e., the algorithm to carry out the function. Pet 19 (citing Ex. 1101, 4:38–55, 6:50–60, 11:26–13:38, 14:35–64, 15:38–16:29, 21:41–66, 34:1–3, 35:56–58,

43:27–46:48, Figs. 3–7; Ex. 1102 ¶¶ 92–94, 96). Relying on the testimony of Dr. Fox, Petitioner points to Yates's description of processing performed by control circuitry 602 illustrated in Figure 6. *Id.* at 32–33 (citing, *e.g.*, Ex. 1102, ¶ 274–276).

For independent claim 11, Patent Owner relies on the same arguments discussed above in Section III.E.3 with respect to claim 1. *See generally* Prelim. Resp. Based on the record at this preliminary stage, we are persuaded by Petitioner's showing that Yates describes each element of claim 11.

Petitioner's alternative grounds based on obviousness are similar to those discussed above in Section III.E.4 in our analysis pertaining to claim 1. Regarding claim 11 and obviousness, Petitioner also contends that Jurafsky's structure of a microphone and voice recognition system is at least equivalent to the corresponding structure for "communications circuitry" recited in claim 11. We determine Petitioner has shown sufficiently for purposes of this Decision how Yates, alone or in combination with Jurafsky, teaches each element of claim 11. Also, we are persuaded that Petitioner has offered articulated reasoning with a rational underpinning as to why one of ordinary skill in the art would have modified and combined the teachings of the asserted art in the manner proposed by Petitioner. *See, e.g.*, Pet. 43–48 (citing, *e.g.*, Ex. 1102 ¶¶ 123–134, 291–296).

Accordingly, for the reasons given and on the record before us at this juncture, we determine that Petitioner has shown a reasonable likelihood that it would prevail in establishing that claim 11 of the '014 Patent is anticipated by Yates, and would have been obvious over Yates alone and over Yates in combination with Jurafsky.

6. Discussion of Dependent Claims 4, 6–8, 14, and 16–18

Each of claims 4 and 14 recites

> The [method of claim 1/system of claim 11], [wherein/wherein the control circuitry is configured, when] selecting the respective known media asset identifier to be the suggested media asset identifier [comprises/, to]:
>
> add[ing] each known media asset identifier having a degree of similarity that exceeds the threshold to a subset of known media asset identifiers;
>
> determin[ing/e] that the respective known media asset identifier has a higher degree of similarity than the degree of similarity of each other known media asset identifier of the subset; and
>
> based on determining that the respective known media asset identifier has a higher degree of similarity than the degree of similarity of each other known media asset identifier of the subset, select[ing] the respective known media asset identifier to be the suggested media asset identifier.

Ex. 1101, 49:42–57, 51:47–62.

For the further recitations of claims 4 and 14, relying on the testimony of Dr. Fox, Petitioner points to Yates's description of control circuitry 602 generating a list of identifiers that exceed a threshold and then displaying the asset with the greatest relevance. Pet 33–35 (citing, *e.g.*, Ex. 1104, (57), Abstract, 2:25–28, 2:41–45, 5:52–54, 25:44–55, 27:5–12, 28:44–46, Figs. 14, 16; Ex. 1102 ¶¶ 240–245, 285). Relying on the testimony of Mr. Tinsman (Ex. 2001 ¶¶ 76–85), Patent Owner contends that Yates operates differently than Petitioner asserts because Yates describes displaying either the entire subset or the asset with the greatest relevance. Prelim. Resp. 27–33.

Yates describes

> for each of a plurality of video assets matching the user specified criterion, determining, in a processor, a score indicative of relevance of the respective video asset to the user by comparing historic or expressed user preferences with data associated with the respective video asset;
>
> filtering the plurality of video assets to remove video assets having scores below a predetermined threshold value;
>
> selecting from the filtered plurality of video assets, for display in the user selected first cell, a video asset having the greatest score indicative of relevance to the user; and
>
> displaying the selected video asset in the user selected first cell on the user equipment device.

Ex. 1104, 28:36–48.

Our decision takes into account Patent Owner's Preliminary Response, including any testimonial evidence, but a genuine issue of material fact created by such testimonial evidence will be viewed in the light most favorable to the petitioner solely for purposes of deciding whether to institute an *inter partes* review. 37 C.F.R. § 42.108(c). Upon weighing Petitioner's arguments and evidence including the testimony of Dr. Fox (Ex. 1102 ¶¶ 240–245, 285) and Patent Owner's arguments and evidence, including the testimony of Mr. Tinsman (Ex. 2001 ¶¶ 76–85), we are persuaded Petitioner's showing is sufficient at this preliminary stage.

Based on the record at this preliminary stage, we are persuaded by Petitioner's showing regarding claims 4 and 14.

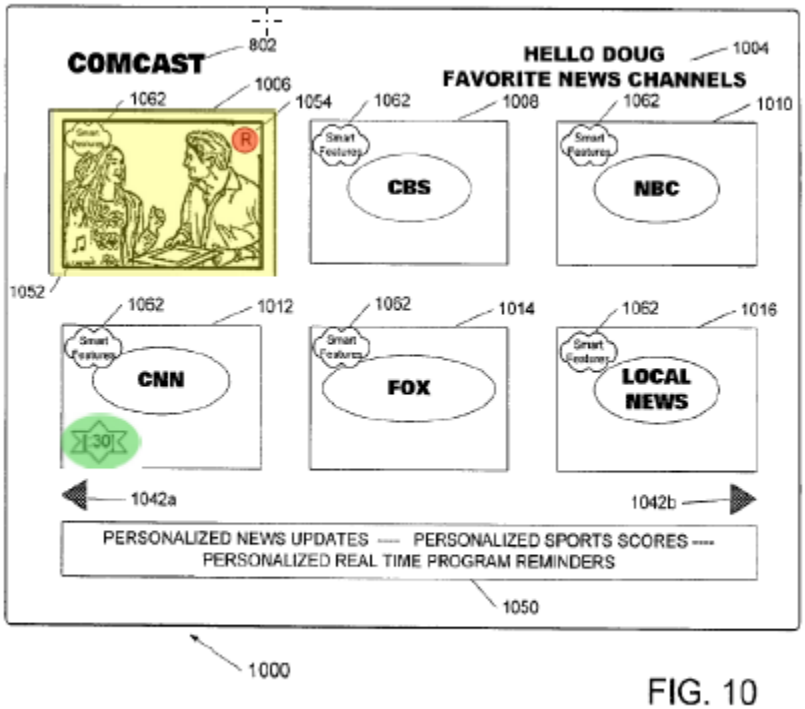
Claims 6 and 16 depend, directly, on claims 1 and 11, respectively and each of claims 6 and 16 recites

> The [method of claim 1/system of claim 11], [wherein/wherein the control circuitry is further configured, when] providing to the user the option to confirm that the

> suggested media asset identifier corresponds to the media asset [comprises/, to]:
>
> provid[ing] to the user a prompt requesting confirmation that the suggested media asset identifier corresponds to the media asset; and
>
> includ[ing/e] in the prompt a preview of the media asset.

Ex. 1101, 50:3–9, 52:13–21.

For the further recitations of claims 6 and 16, Petitioner points to Yates's description regarding interactive features described with respect to Figures 8 and 10. Pet. 35–37 (citing, *e.g.*, Ex. 1104, 20:30–38, 21:3–34, 25:50–55, Figs. 8, 10). For example, relying on the testimony of Dr. Fox, Petitioner provides annotations to Figure 10 of Yates, reproduced below. Pet. 36–37 (citing, *e.g.*, Ex. 1102 ¶¶ 246–249, 286).



Ex. 1104, Fig. 10 (annotated)

Figure 10 of Yates, above, illustrates mosaic page 1000 including cell 1006, highlighted in yellow, one-touch recording 1054, highlighted in red, and

"[:30]" highlighted in green. Ex. 1104, 23:12–16, Fig. 10 (including Petitioner's annotations on page 36 of the Petition).

Yates describes that the display screens shown in Figures 8 and 10 are divided into user selectable cells (*id.* at 20:9–10, 23:12–15) that allow a user to navigate and select features such as recording a video broadcast currently showing, ordering merchandise associated with the current program, playing a 30-second preview, or viewing bonus features including alternative endings and commentaries. *Id.* at 20:30–38, 21:3–34, 25:50–55, Figs. 8, 10. Yates describes mosaic page 1000 shown in Figure 10 as accessed by activating the button "More News" 926. *Id.* at 23:12–14. Yates describes that Figure 10 shows cell 1006 selected as the active cell with live audio 1052 and one-touch recording 1054 enabled. *Id.* at 23:14–16.

Relying on the testimony of Mr. Tinsman, Patent Owner contends that Yates's "display of selectable media assets merely identifies recommended content" and "does not include a symbol or message that represents a selectable media asset to confirm that the media asset identifier corresponds to the media asset requested by a user's voice command." Prelim. Resp. 35 (citing, *e.g.*, Ex. 2001 ¶ 92). Patent Owner further contends that Yates's "display of an option to record," "display of an option to preview a suggested media asset," and "display of an option to find bonus material" are not options to confirm because recording, previewing a media asset, and previewing bonus material do not confirm that the media asset identifier corresponds to the media asset that the user searched for. *Id.* at 36 (citing, *e.g.*, Ex. 2001 ¶¶ 93–95).

As discussed in Section III.D.3, we apply the ordinary and customary meaning, namely "prompt" is a symbol or message requesting input from the

user. Regarding whether Yates's "display of a selectable suggested media asset," "display of an option to record," "display of an option to preview a suggested media asset," and "display of an option to find bonus material" are prompts requesting confirmation, upon weighing Petitioner's arguments and evidence, including the testimony of Dr. Fox, and Patent Owner's arguments and evidence, including the testimony of Mr. Tinsman (*see* 37 C.F.R. § 42.108(c)), we are persuaded Petitioner's showing is sufficient at this preliminary stage.

Based on the record at this preliminary stage, we are persuaded by Petitioner's showing regarding claims 6 and 16.

Claims 7 and 17 depend, directly, on claims 1 and 11, respectively and each of claims 7 and 17 recites "identifying a source of the media asset; accessing the media asset from the source; and causing the media asset to be stored." Ex. 1101, 50:11–13. For the further recitations of claims 7 and 17, relying on the testimony of Dr. Fox, Petitioner points to Yates's data source 120 and control circuitry 602. Pet. 38–39 (citing, *e.g.*, Ex. 1104, Figs. 14–15; Ex. 1102 ¶¶ 254–256, 287). Yates describes content sources (*see, e.g.*, Ex. 1104, 18:50–56) and recording content (*see, e.g.*, *id.* at 13:12–17, 23:12–16).

Patent Owner does not argue separately Petitioner's contentions for claims 7 and 17. Based on the record at this preliminary stage, we are persuaded by Petitioner's showing regarding claims 7 and 17.

Claims 8 and 18 depend, directly, on claims 7 and 17, respectively and each of claims 8 and 18 recites

> The [method of claim 1/system of claim 11], wherein [the control circuitry, when] causing the media asset to be stored [comprises/is configured to]:

> search[ing] schedule data for a scheduled broadcast of the media asset from the source;
>
> determin[ing/e], based on the schedule data, at least one of a date, start time, and run time for the scheduled broadcast of the media asset from the source; and
>
> based on the determined at least one of the date, start time, and run time, causing the media asset to be stored.

Ex. 1101, 50:14–22, 52:13–21.

For the further recitations of claims 8 and 18, Petitioner points to Yates's description of scheduled broadcast times and recording the media asset. Pet. 40–42 (citing, *e.g.*, Ex. 1104, 4:54–58, 5:54–59, 6:49–57, 7:57–64, 8:8–21, 21:63–22:24, 25:63–26:13, 26:49–57, 28:52–67, Fig. 15; Ex. 1102 ¶¶ 258–261, 289). As shown in Figure 15 of Yates, screen shot 1500 displays two scheduled sports events including the scheduled date and time of the event and the source or channel of the broadcast. Ex. 1104, 25:63–26:6; *see also id.* at 7:57–64 (describing that "[d]ata source **120** in system **100** may include a program listings database that is used to provide the user with television program-related information"). Yates further describes programming user equipment 108 to record the asset. *See, e.g.*, *id.* at 4:54–58, 26:55–57.

Patent Owner does not argue separately Petitioner's contentions for claims 8 and 18. Based on the record at this preliminary stage, we are persuaded by Petitioner's showing regarding claims 8 and 18.

In summary, for the reasons given and on the record before us at this juncture, we determine that Petitioner has shown a reasonable likelihood that it would prevail in establishing that dependent claims 4, 6–8, 14, and 16–18 of the '014 Patent are anticipated by Yates. We also determine that Petitioner has shown a reasonable likelihood that it would prevail in

establishing that dependent claims 4, 6–8, 14, and 16–18 of the ’014 Patent are unpatentable, under 35 U.S.C. § 103, as obvious over (1) Yates alone; and (2) the combination of Yates and Jurafsky.

F. Obviousness—Claims 2, 3, 12, and 13

Petitioner contends each of claims 2 and 12 of the ’014 Patent is unpatentable, under 35 U.S.C. § 103, as obvious over (1) Yates, Taranenko, and Wang; (2) Yates, Jurafsky, Taranenko, and Wang; (3) Yates, Euzenat, and Wang; (4) Yates, Jurafsky, Euzenat, and Wang; (5) Yates, Alberca, and Wang; and (6) Yates, Jurafsky, Alberca, and Wang. Pet. 13. Petitioner contends that each of claims 3 and 13 of the ’014 Patent is unpatentable, under 35 U.S.C. § 103, as obvious over Yates, Jurafsky, and Wang. *Id.* at 14. In our discussion below, we first provide a brief overview of the prior art, and then we address the parties’ contentions in turn.

1. Overview of Taranenko

Taranenko is directed to geographical information systems involving geographic names. Ex. 1123 ¶ 3. Taranenko indicates that data storage and retrieval in such systems may require knowledge of the exact place name spelling. *Id.* ¶ 6. Taranenko describes searching for similar feature names and expressing the degree of similarity as a percentage, with 100 percent indicating exact matches. *Id.* ¶¶ 11–12. Figure 14 of Taranenko is reproduced below.

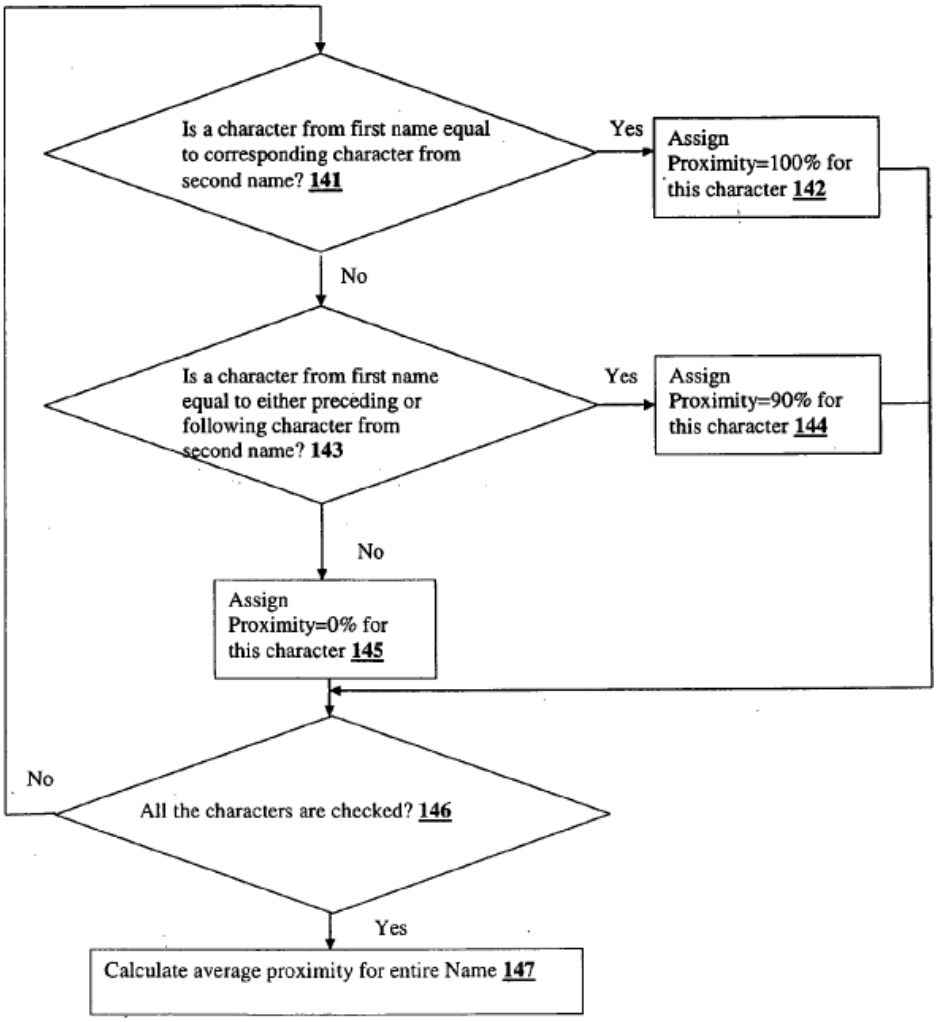


FIG . 14

Figure 14 of Taranenko, above, illustrates how proximity values are calculated for two names, designated as a first name and a second name, each consisting of a normalized string of characters. *Id.* ¶ 74.

Processing of Figure 14 begins in step 141 with determining whether the first character in the first name is equal to the first character in the second name. *Id.* ¶ 74, Fig. 14. If yes, processing proceeds to step 142 and a proximity value of 100 percent is assigned for this character. *Id.* Then processing proceeds to step 146 to check all characters. *Id.*

If the determination in step 141 is no, processing proceeds to step 143 with determining whether the next character from the first name equals either the preceding or following character from the second name. *Id.* ¶ 75, Fig. 14. If yes, processing proceeds to step 144 and a proximity value of 90 percent is assigned for this character. *Id.* Then processing proceeds to step 146 to check all characters. *Id.* If no, processing proceeds to step 145 and a proximity value of 0 percent is assigned for this character. *Id.* Then processing proceeds to step 146 to check all characters. *Id.*

In step 146, a determination is made as to whether all characters are checked. *Id.* at Fig. 14. If no, processing returns to step 141. *Id.* If yes, processing proceeds to step 147. *Id.* In step 147, an average proximity is calculated by summing the proximity values for all characters in the name string and dividing the length of the longest string. *Id.* ¶ 76.

2. Overview of Wang

Wang is a book describing computer programming with respect to certain programming languages including BASIC and C++. Ex. 1116, 12–13. Wang describes subprograms (*id.* at 29–30) and using functions (*id.* at 42–49).

3. Overview of Euzenat

Euzenat is a book describing ontology matching to find relations between entities expressed in different ontologies. Ex. 1106, 9. Euzenat describes an algorithm for providing a percentage of characters that match between two strings. *Id.* at 10–13.

4. Overview of Alberca

Alberca is a series of web pages including a description of calculating a Hamming similarity for sequences. Ex. 1105, 11–12.

5. Discussion of Claims 2, 3, 12, and 13

Claims 2 and 12 depend, directly, on claims 1 and 11, respectively and each of claims 2 and 12 recites

> The [method of claim 1/system of claim 11], wherein calculating the degree of similarity between the media asset identifier and each known media asset identifier comprises:
>
> for each known media asset identifier:
>
> initializing the degree of similarity for the known media asset identifier to a default value;
>
> for each character position in the media asset identifier:
>
> determining whether a character at the character position in the media asset identifier matches a character at the character position in the known media asset identifier; and
>
> based on determining that the character at the character position in the media asset identifier matches the character at the character position in the known media asset identifier, incrementing the degree of similarity for the known media asset identifier by a unit.

Ex. 1101, 49:11–28, 51:15–32.

For the further recitations of claims 2 and 12, Petitioner points to the teachings summarized above in Taranenko, Euzenat, and Alberca, as well as Wang. Pet. 49–56 (citing, *e.g.*, Ex. 1123 ¶¶ 12, 50–51, 65, 74–76, Fig. 14; Ex. 1105, 9–12; Ex. 1106, 9–13; Ex. 1116, 12–13, 23, 29–30, 42–49; Ex. 1102 ¶¶ 143–148, 151–164, 298–313). Relying on the testimony of Mr. Tinsman, Patent Owner contends neither Taranenko nor Alberca teaches

incrementing by a unit. Prelim. Resp. 38–42, 45–47. Patent Owner also contends Euzenat identifies mismatches so Euzenat does not teach "determining whether a character at the character position in the media asset identifier matches a character at the character position in the known media asset identifier" recited in claims 2 and 12, and a person having ordinary skill in the art would not have combined the teachings of Yates and Euzenat. *Id.* at 42–45.

Our decision takes into account the Patent Owner's Preliminary Response, including any testimonial evidence, but a genuine issue of material fact created by such testimonial evidence will be viewed in the light most favorable to the petitioner solely for purposes of deciding whether to institute an *inter partes* review. 37 C.F.R. § 42.108(c). Upon weighing Petitioner's arguments and evidence, including the testimony of Dr. Fox (Ex. 1102 ¶¶143–148, 151–164, 298–313), and Patent Owner's arguments and evidence, including the testimony of Mr. Tinsman (Ex. 2001 ¶¶ 74–76, 103–106, 108–110, 112–114), we are persuaded Petitioner's showing is sufficient at this preliminary stage.[5]

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[5] Although Patent Owner contends no terms need to be construed (Prelim. Resp. 15), Patent Owner contends "unit" means "a determinate quantity (as of length of time, heat, or value) adopted as a standard of measurement" and, relying on the testimony of Mr. Tinsman, contends that Taranenko's percentage is not a unit. *Id.* at 41–42 (citing, *e.g.*, Ex. 2001 ¶ 105; Ex. 2004, 1369). Even using Patent Owner's ordinary and customary meaning of "unit," weighing Petitioner's arguments and evidence including Dr. Fox's testimony that Taranenko teaches incrementing the degree of similarity for the known media asset identifier by a unit (*see, e.g.*, Ex. 1102 ¶¶ 301–303) and Patent Owner's arguments and evidence, including the testimony of Dr. Tinsman (Ex. 2001 ¶ 105), we are persuaded by Petitioner at this preliminary stage.

Claims 3 and 13 depend, directly, on claims 1 and 11, respectively, and each of claims 3 and 13 recites

> The [method of claim 1/system of claim 11], wherein calculating the degree of similarity between the media asset identifier and each known media asset identifier comprises:
>
> for each known media asset identifier:
>
> initializing the degree of similarity for the known media asset identifier to a default value;
>
> for each word in the media asset identifier:
>
> determining whether the known media asset identifier contains the word; and
>
> based on determining that the known media asset identifier contains the word, incrementing the degree of similarity for the known media asset identifier by a unit

Ex. 1101, 49:29–41, 51:33–46.

For the further recitations of claims 3 and 13, Petitioner points to Jurafsky's vector-space model and Wang's description of initializing to a default value. Pet. 57–59 (citing, *e.g.*, Ex. 1107, 323–324; Ex. 1116, 12–13, 23, 29–30, 42–49; Ex 1102 ¶¶ 314–322). Relying on the testimony of Mr. Tinsman, Patent Owner contends Jurafsky only sums the number of words shared between two strings and thus does not increment the degree of similarity "for each word in the media asset identifier." Prelim. Resp. 48–49. Upon weighing Petitioner's arguments and evidence, including the testimony of Dr. Fox (Ex. 1102 ¶¶ 314–322), and Patent Owner's arguments and evidence, including the testimony of Mr. Tinsman (Ex. 2001 ¶ 123), we are persuaded Petitioner's showing is sufficient at this preliminary stage.

We are persuaded by Petitioner's showing for claims 2, 3, 12, and 13 at this juncture and we also are persuaded that Petitioner has offered articulated reasoning with a rational underpinning as to why one of ordinary

skill in the art would have modified and combined the teachings of the asserted art in the manner proposed by Petitioner. Pet. 57 (citing, *e.g.*, Ex. 1102 ¶¶ 168–172, 314–322). In summary, for the reasons given and on the record before us at this juncture, we determine that Petitioner has shown a reasonable likelihood that it would prevail in establishing that dependent claims 2 and 12 of the '014 Patent are unpatentable, under 35 U.S.C. § 103, as obvious over (1) Yates, Taranenko, and Wang; (2) Yates, Jurafsky, Taranenko, and Wang; (3) Yates, Euzenat, and Wang; (4) Yates, Jurafsky, Euzenat, and Wang; (5) Yates, Alberca, and Wang; and (6) Yates, Jurafsky, Alberca, and Wang. For the reasons given and on the record before us at this juncture, we also determine that Petitioner has shown a reasonable likelihood that it would prevail in establishing that dependent claims 3 and 13 of the '014 Patent are unpatentable, under 35 U.S.C. § 103, as obvious over Yates, Jurafsky, and Wang.

G. Obviousness—Dependent Claims 5, 9, 15, and 19

Petitioner contends each of claims 5, 9, 15, and 19 of the '014 Patent is unpatentable, under 35 U.S.C. § 103, as obvious over (1) Yates and Hamano; and (2) Yates, Jurafsky, and Hamano. Pet. 14. In our discussion below, we first provide a brief overview of the prior art, and then we address the parties' contentions in turn.

1. Overview of Hamano

Hamano is directed to a media system that provides media content scheduling. Ex. 1109 ¶ 1. Hamano describes a media planner application using user profiles to schedule content consumption or recommend media events to one or more users. *Id.* ¶ 81. Hamano describes selecting the best

recommendations from search results based on user preferences stored in the user profile. *Id.* ¶¶ 112–113. Hamano describes an example of a user-supplied preference as preferring "hockey" over "basketball." *Id.* ¶ 116.

Hamano also describes that the user profile may contain a sub-profile including information about devices available to a user. *Id.* ¶ 97. The user may select the device from which the event is to be presented or to which the media event is to be delivered. *Id.* ¶ 120. For instance, Hamano describes delivering recorded media on a portable device prior to the scheduled timeslot, which involves determining the device to which the media is to be delivered. *Id.* ¶¶ 135–136.

2. Discussion of Claims 5, 9, 15, and 19

Claims 5 and 15 depend, directly, on claims 1 and 11, respectively and each of claims 5 and 15 recites

> The [method of claim 1/system of claim 11], wherein [the control circuitry is further configured to] select[ing] the respective known media asset identifier to be the suggested media asset identifier [is further based on/by]:
>
> determining a characteristic of a media asset corresponding to the respective known media asset identifier;
>
> accessing a user profile of the user;
>
> determining that the user profile comprises a preference of the user for media assets with the characteristic; and
>
> based on determining that the user profile comprises the preference of the user for media assets with the characteristic, selecting the respective known media asset identifier.

Ex. 1101, 52:1–12.

For the further recitations of claims 5 and 15, Petitioner points to Hamano's description of selecting the best recommendations from search

results based on user preferences, such as preferring "hockey" over "basketball," which are stored in the user profile. Pet. 60–62 (citing, *e.g.*, Ex. 1109 ¶¶ 81, 112–113, 116). Petitioner also has offered articulated reasoning with a rational underpinning as to why one of ordinary skill in the art would have modified and combined the teachings of the asserted art in the manner proposed by Petitioner. *Id.* at 62–63 (citing, *e.g.*, Ex. 1102 ¶¶ 186–194).

Patent Owner does not argue separately Petitioner's contentions for claims 5 and 15. Based on the record at this preliminary stage, we are persuaded by Petitioner's showing regarding those claims.

Each of claims 9 and 19 recites

> The [method of claim 7/system of claim 17], wherein causing the media asset to be stored comprises:
>
> detecting a device identifier in the voice command;
>
> accessing a user profile of the user, wherein the user profile comprises at least one association between at least one device identifier and at least one device;
>
> finding the device identifier in the user profile;
>
> determining a device with which the device identifier is associated in the user profile; and
>
> causing the media asset to be stored on the device.

Ex. 1101, 49:29–41, 51:33–46.

For the further recitations of claims 9 and 19, Petitioner points to Hamano's description of using user profiles to record content on a device. Pet. 64–70 (citing, *e.g.*, Ex. 1109 ¶¶ 51, 55, 57, 68–69, 71–73, 84, 90, 98–102, 120–121, 132–137, Figs. 4, 11–18). Also, Petitioner has offered articulated reasoning with a rational underpinning as to why one of ordinary skill in the art would have modified and combined the teachings of the

asserted art in the manner proposed by Petitioner. *Id.* (citing, *e.g.*, Ex. 1102 ¶¶ 190–194, 334–343, 345–347, 349).

Patent Owner does not argue separately Petitioner's contentions for claims 9 and 19. Based on the record at this preliminary stage, we are persuaded by Petitioner's showing regarding those claims.

In summary, for the reasons given and on the record before us at this juncture, we determine that Petitioner has shown a reasonable likelihood that it would prevail in establishing that dependent claims 5, 9, 15, and 19 of the '014 Patent are unpatentable, under 35 U.S.C. § 103, as obvious over (1) Yates and Hamano; and (2) Yates, Jurafsky, and Hamano.

H. Obviousness—Dependent Claims 10 and 20

Petitioner contends each of claims 10 and 20 of the '014 Patent is unpatentable, under 35 U.S.C. § 103, as obvious over (1) Yates and Wood; and (2) Yates, Jurafsky, and Wood. Pet. 14. In our discussion below, we first provide a brief overview of the prior art, and then we address the parties' contentions in turn.

1. Overview of Wood

Wood is directed to video data recorders that use channel guide data and user entered selection criteria. Ex. 1110, 1:58–62. Figure 2 of Wood is reproduced below.

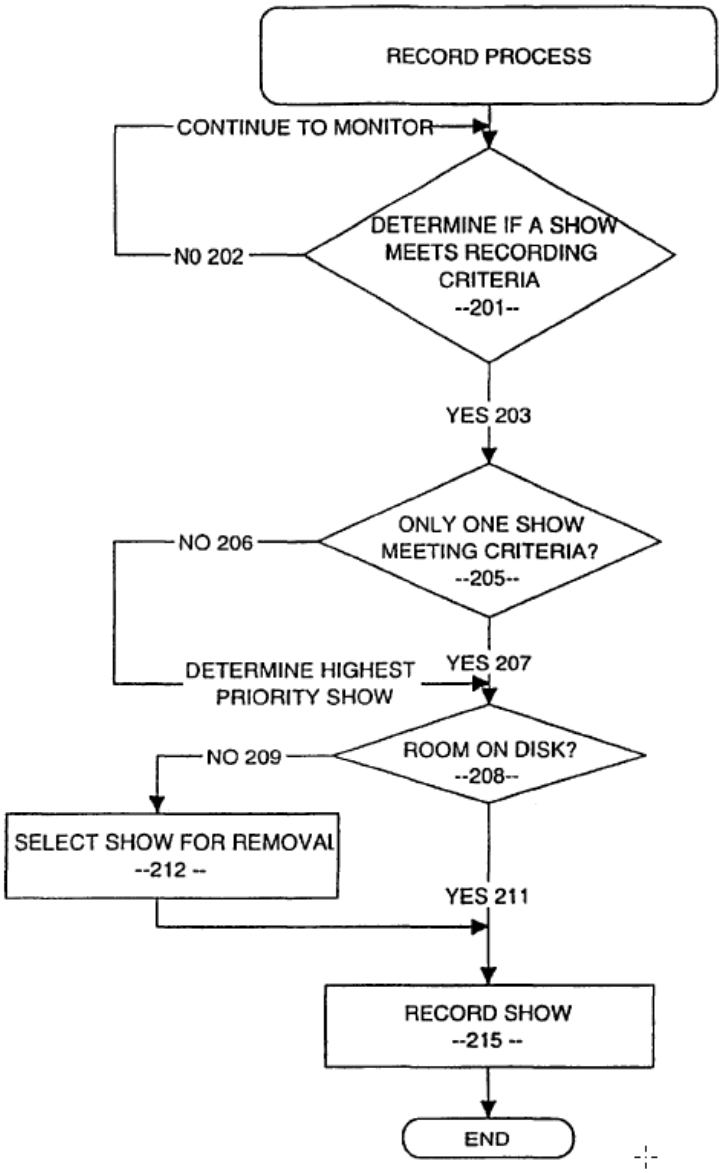

FIG. 2

Figure 2 of Wood, above, illustrates a method of recording programming including step 201 in which processor 101 monitors criteria database 104 and the channel guide to determine when programming is available that meets predetermined user selectable criteria. *Id.* at 4:8–13. If no current programming meets the preselected criteria (branch 202), processor 101 continues to monitor for programming meeting the criteria. *Id.* at 4:16–18.

When (branch 203) programming is available that meets the criteria, in step 205 a determination is made whether multiple programs simultaneously meet the criteria. *Id.* at 4:19–24. If in step 205 a determination that multiple programs simultaneously meet the criteria (branch 206), the system determines the highest priority programming based on user provided priority information and processing proceeds to step 208. *Id.* at 4:26–30, Fig. 2. If only one program meets the criteria (branch 207), then processing proceeds to step 208 and a determination is made whether the disk has room for recording the show. *Id.* at 4:31–35. If the disk has room (branch 211), in step 215 the show is recorded. *Id.* 4:35–36. If the disk does not have room (branch 209), in step 212 a determination is made whether a show may be selected for removal, for example, if a show already stored has a lower priority than the show to be recorded. *Id.* at 4:36–40.

2. Discussion of Claims 10 and 20

Each of claims 10 and 20 recites

> The [method of claim 7/system of claim 17], wherein [the control circuitry is configured, when] causing the media asset to be stored [comprises/, to]:
>
> determin[ing/e] whether there is sufficient space on a device for the media asset to be stored;
>
> based on determining that there is insufficient space on the device for the media asset to be stored, providing to the user an option to select a media asset to delete from the device;
>
> receiv[ing/e] a selection from the user of a second media asset to delete from the device;
>
> caus[ing/e] the second media asset to be deleted from the device; and
>
> caus[ing/e] the media asset to be stored on the device.

Ex. 1101, 52:48–61.

For the further recitations of claims 10 and 20, Petitioner points to Wood's teachings relating to determining whether the disk has room for recording the show, as well as Wood's teachings for personal channels for recording shows to facilitate playback. Pet. 72–76 (citing, *e.g.*, Ex. 1110, 2:35–55, 3:22–26, 4:8–5:65, 7:1–62, Fig. 2; Ex. 1102 ¶¶ 203–208, 352–358). Also, Petitioner has offered articulated reasoning with a rational underpinning as to why one of ordinary skill in the art would have modified and combined the teachings of the asserted art in the manner proposed by Petitioner. *Id.* at 70–76 (citing, *e.g.*, Ex. 1102 ¶¶ 203–208, 350–358).

Patent Owner does not argue separately Petitioner's contentions for claims 10 and 20. Based on the record at this preliminary stage, we are persuaded by Petitioner's showing regarding those claims.

In summary, for the reasons given and on the record before us at this juncture, we determine that Petitioner has shown a reasonable likelihood that it would prevail in establishing that dependent claims 10 and 20 of the '014 Patent are unpatentable, under 35 U.S.C. § 103, as obvious over (1) Yates and Wood; and (2) Yates, Jurafsky, and Wood.

IV. CONCLUSION

Upon consideration of the parties' contentions and the evidence of record, we determine that Petitioner has shown a reasonable likelihood that it would prevail in establishing the unpatentability of claims 1–20 of the '014 Patent on all grounds presented in the Petition. At this preliminary stage, no final determination has yet been made with regard to the patentability of any challenged claim or any underlying factual or legal

issues. The final determination will be based on the record as developed during the *inter partes* review.

V. ORDER

In consideration of the foregoing, it is hereby

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review of claims 1–20 of the ’014 Patent is instituted with respect to all grounds set forth in the Petition; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4(b), *inter partes* review of the ’014 Patent shall commence on the entry date of this Order, and notice is hereby given of the institution of a trial.

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