

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CALLMINER, INC.,
Petitioner,

v.

MATTERSIGHT CORPORATION,
Patent Owner.

IPR2020-00270
Patent 8,611,523 B2

Before KEVIN F. TURNER, SHEILA F. McSHANE, and
STEPHEN E. BELISLE, *Administrative Patent Judges*.

BELISLE, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining All Challenged Claims Unpatentable
35 U.S.C. § 318(a)

I. INTRODUCTION

A. *Case Posture*

CallMiner, Inc. (“Petitioner”) filed a Petition (Paper 2, “Pet.”) to institute an *inter partes* review of claims 8, 9, 13–16, and 20 (“the challenged claims”) of U.S. Patent No. 8,611,523 B2 (Ex. 1001, “the ’523 patent”). Mattersight Corporation (“Patent Owner”) filed a Preliminary Response to the Petition (Paper 8, “Prelim. Resp.”; *see* Paper 5). We instituted an *inter partes* review of claims 8, 9, 13–16, and 20 of the ’523 patent on all grounds of unpatentability alleged in the Petition. Paper 9 (“Institution Decision” or “Dec.”).

After institution, Patent Owner filed a Response. Paper 18 (“PO Resp.”). Petitioner filed a Reply. Paper 22 (“Pet. Reply”). Patent Owner filed a Sur-Reply. Paper 27 (“PO Sur-Reply”). We held a hearing on March 18, 2021, and a transcript of the hearing appears in the record. Paper 37 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6. Under the applicable evidentiary standard, Petitioner has the burden to prove unpatentability by a preponderance of the evidence. *See* 35 U.S.C. § 316(e) (2018); 37 C.F.R. § 42.1(d) (2019). This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73.

For the reasons discussed below, we determine Petitioner has established by a preponderance of the evidence that claims 8, 9, 13–16, and 20 of the ’523 patent are unpatentable.

B. Related Matters

The parties identify the following active matter as related to the '523 patent (Pet. 1; Paper 5, 1): *NICE Ltd. v. CallMiner, Inc.*, Case No. 18-cv-02024 (D. Del.).

Petitioner also filed a Petition challenging claims 1, 2, 6, and 7 of the '523 patent in Case IPR2020-00271 and filed an Explanation for Filing Multiple Petitions in this proceeding (Paper 3). We denied the Petition in Case IPR2020-00271 (Paper 14). Petitioner filed petitions challenging other patents owned by Patent Owner in Cases IPR2020-00220 and IPR2020-00272.

C. The '523 Patent

The '523 patent is titled “Methods and Systems For Determining Segments of a Telephonic Communication Between a Customer and a Contact Center to Classify Each Segment of the Communication, Assess Negotiations, and Automate Setup Time Calculation,” and issued on December 17, 2013, from U.S. Application No. 12/286,168, filed September 29, 2008. Ex. 1001, codes (10), (21), (22), (45), (54).

The '523 patent relates to methods and systems for analyzing a telephonic communication between a customer and a call center agent. Ex. 1001, code (57). Telephone call centers “facilitate the receipt, response and routing of incoming telephone calls relating to customer service, retention, and sales.” *Id.* at 1:28–30. The '523 patent states that monitoring calls by having individuals listen to calls between customers and agents was known in the art, but such methods were “inconsistent and subjective” in “monitoring, training and evaluating call center agents.” *Id.* at 1:50–62. According to the '523 patent, there was a need for “tools useful for breaking

down a communication between [a customer] and a [customer service representative (CSR)] into objects and segments that may be classified into categories for analysis.” *Id.* at 2:4–7.

The ’523 patent describes separating a telephonic communication into first and second “constituent voice data” as determined by, for example, the source and destination address of individual data packets. Ex. 1001, 8:41–44, 14:19–24, 51–58, Figs. 4, 7–9. “[O]nce the first and second constituent voice data are separated one from the other, each . . . can be independently mined and analyzed.” *Id.* at 15:39–42. Figure 10 of the ’523 patent is reproduced below.

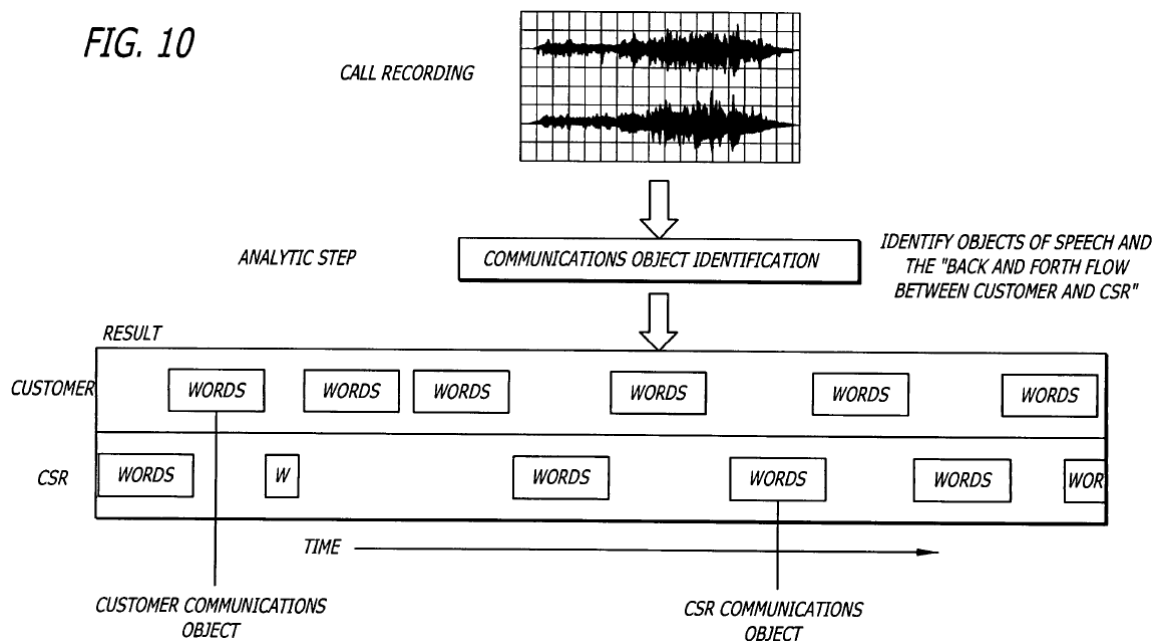


Figure 10 is a block diagram illustrating customer and CSR communications object identification.

Ex. 1001, 4:42–44.

Figure 10 depicts how a “stereo call recording with voice data for a customer and a CSR” is analyzed. Ex. 1001, 16:6–7. In an exemplary embodiment, voice data are converted into text, communication objects

within the text are identified, and the communication objects are classified into predefined categories (e.g., “setup, information exchange, miscommunication, non-interaction, conversation, or positive comment”) by searching for and identifying “text-based keywords” for the categories. *Id.* at 15:63–16:11. “The typed communication objects may then be further categorized to form segments of objects according to type.” *Id.* at 16:3–5, 28–32. Alternatively, the ’523 patent also discloses “it is contemplated by the present invention that mining and analysis in accordance with the present invention can be applied directly to voice data configured in audio format,” rather than first translating that voice data into a text file. *Id.* at 15:52–57.

Figure 12 of the ’523 patent is reproduced below.

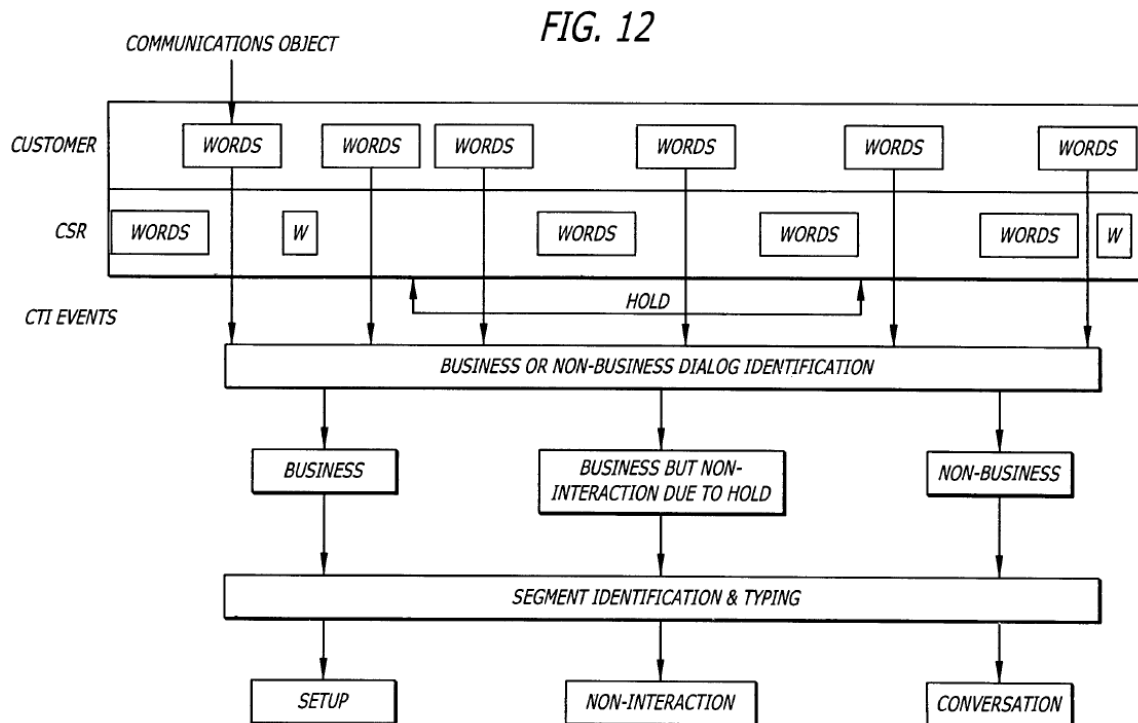


Figure 12 is a block diagram illustrating classification of communication objects.

Ex. 1001, 4:50–52.

Figure 12 depicts “the words of the CSR and customer as communication objects, as well as CTI (Computer Telephony Integration) events (e.g., a ‘hold’ event).” Ex. 1001, 16:18–20. As shown in Figure 12, communication objects are classified as business-related, business-related but non-interaction due to placing the customer on hold, and non-business-related, and segments are classified as call setup, non-interaction, and conversation. *Id.* at 16:18–32. Classification of communication objects and segments may be performed by applying “[w]ord libraries” for the predefined categories to the text of the communication. *Id.* at 16:66–17:5, Fig. 15. “Non-interaction type classifications may be based on CTI events.” *Id.* at 17:5–6. The ’523 patent describes further analysis of the voice data to, for example, determine percentages of time spent on certain portions of the communication or identify negotiations and the strength of negotiations between the customer and CSR. *Id.* at 17:23–18:8.

D. Illustrative Claim

Challenged claims 8 and 15 of the ’523 patent are independent. Claim 8 is illustrative and reproduced below.

8. A method for analyzing a telephonic communication between one or more customers and a contact center having one or more agents, the method comprising the steps of:

recording, with a processor, onto a non-transitory computer readable medium a telephonic communication between a customer and an agent;

processing said telephonic communication into a plurality of computer telephony interpretation event[s];

analyzing said plurality of computer telephony interpretation event[s]; and

classifying said plurality of computer telephony interpretation event[s] into types a first type and a second, different type.

Ex. 1001, 20:24–36.

E. Applied References

Petitioner relies upon the following references:

Konig et al., U.S. Patent No. 7,487,094 B1, filed June 18, 2004, issued February 3, 2009 (Ex. 1003, “Konig”);

Watson et al., U.S. Patent Application Publication No. 2008/0004945 A1, filed June 30, 2006, published January 3, 2008 (Ex. 1002, “Watson”); and

Paz et al., U.S. Patent Application Publication No. 2006/0179064 A1, filed February 7, 2006, published August 10, 2006 (Ex. 1014, “Paz”).

F. Asserted Grounds of Unpatentability

We instituted *inter partes* review of claims 8, 9, 13–16, and 20 of the ’523 patent on the following grounds asserted by Petitioner. Dec. 2, 6, 27; Pet. 4.

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
8, 9, 14–16, 20	103(a) ¹	Watson, Konig
13	103(a)	Watson, Konig, Paz

Petitioner relies on the Declaration of Richard Stern, Ph.D. Ex. 1013.

Patent Owner relies on the Declaration of Ivan Zatkovich. Ex. 2006.

¹ The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284 (2011), amended 35 U.S.C. § 103. Because the challenged claims of the ’523 patent have an effective filing date before March 16, 2013, the effective date of the relevant amendment, the pre-AIA version of § 103 applies.

II. ANALYSIS

A. *Applicable Law*

Petitioner challenges the patentability of claims 8, 9, 13–16, and 20 of the '523 patent on the grounds that the claims are obvious under 35 U.S.C. § 103 in light of various references including: Watson, Konig, Paz. To prevail in its challenges to the patentability of the claims, Petitioner must establish unpatentability by a preponderance of the evidence. 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d). “In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (2012) (requiring *inter partes* review petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”)). This burden never shifts to Patent Owner. *See Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015) (citing *Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1326–27 (Fed. Cir. 2008)) (discussing the burden of proof in *inter partes* review).

A claim is unpatentable under 35 U.S.C. § 103 if “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” *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 skill in the art; and (4) when of record, objective evidence of non-obviousness, i.e., secondary considerations. *Graham v. John Deere Co.*,

383 U.S. 1, 17–18 (1966). Secondary considerations may include the following: “commercial success, long felt but unsolved needs, failure of others, etc.”² *Id.* The totality of the evidence submitted may show that the challenged claims would not have been obvious to one of ordinary skill in the art. *In re Piasecki*, 745 F.2d 1468, 1471–72 (Fed. Cir. 1984). When evaluating a combination of teachings, we must also “determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *KSR*, 550 U.S. at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

The Supreme Court has made clear that we apply “an expansive and flexible approach” to the question of obviousness. *Id.* at 415. Whether a patent claiming a combination of prior art elements would have been obvious is determined by whether the improvement is more than the predictable use of prior art elements according to their established functions. *Id.* at 417. To reach this conclusion, however, requires more than a mere showing that the prior art includes separate references covering each separate limitation in a claim under examination. *Unigene Labs., Inc. v. Apotex, Inc.*, 655 F.3d 1352, 1360 (Fed. Cir. 2011). Rather, obviousness requires the additional showing that a person of ordinary skill at the time of the invention would have selected and combined those prior art elements in the normal course of research and development to yield the claimed invention. *Id.* “To satisfy its burden of proving obviousness, a petitioner cannot employ mere conclusory statements. The petitioner must instead articulate specific reasoning, based on evidence of record, to support the

² Patent Owner did not present any evidence or arguments directed to secondary considerations during this proceeding.

legal conclusion of obviousness.” *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016).

We analyze the challenges presented in the Petition in accordance with the above-stated principles.

B. Level of Ordinary Skill in the Art

Petitioner contends that a person of ordinary skill in the art, at the time of the effective filing date of the ’523 patent, would have had at least (i) “a Master’s degree in computer science, electrical engineering, or a related subject and at least three years of experience implementing systems for performing speech analysis,” or (ii) “a Bachelor’s degree in computer science, electrical engineering, or a related subject and at least five years of experience implementing systems for performing speech analysis.” Pet. 8 (citing Ex. 1013 ¶ 30).

Patent Owner disagrees with Petitioner’s proposed qualifications, alleging that the subject matter of the ’523 patent does not require the level of experience that Petitioner proposes. PO Resp. 11–12 (citing Ex. 2006 ¶¶ 25–27). Patent Owner contends that a person of ordinary skill in the art with a Master’s degree “need only have one year of experience,” and with a Bachelor’s degree “need only have three years of experience.” *Id.* at 12.

In determining the level of ordinary skill in the art, various factors may be considered, including the “type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field.” *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (citation omitted). The level of ordinary skill in the art also is reflected by

the prior art of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

Considering the subject matter of the '523 patent, the background technical field, the prior art, and the parties' competing characterizations of the skilled artisan, we determine that the skilled artisan here would have had a Bachelor's degree in computer science or electrical engineering, or some equivalent level of education, and that this would provide sufficient educational background in light of the technology at issue in the '523 patent and prior art. We also determine that the skilled artisan here would have had three years of experience implementing systems for performing speech analysis. We find Petitioner's proposed requirement for at least five years of experience in this context excessive in view of the known technologies underlying the claimed invention in the '523 patent. *See, e.g.*, Ex. 1001, 15:5–7 (“[E]vent data, such as silence periods or over-talking, may be identified through analysis techniques known to those skilled in the art.”), 15:58–60 (“[T]he translation of audio to text and subsequent data mining may be accomplished by systems known in the art.”).

We note that although the parties present alternative levels of qualifications for the skilled artisan, Patent Owner concedes that “[the skilled artisan’s] conclusions would be the same no matter which level of skill were chosen” (PO Resp. 12), and therefore, accepting one of the parties' proposed skill levels over the other's proposed skill level does not affect our analysis of the merits of this case.

C. Claim Construction

We apply the claim construction standard articulated in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). 37 C.F.R.

§ 42.200(b). Under *Phillips*, claim terms are afforded “their ordinary and customary meaning.” *Phillips*, 415 F.3d at 1312. “[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.” *Id.* at 1313. “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). Extrinsic evidence is “less significant than the intrinsic record in determining ‘the legally operative meaning of claim language.’” *Phillips*, 415 F.3d at 1317. Only terms that are in controversy need to be construed, and only to the extent necessary to resolve the controversy. *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999); *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (applying *Vivid Techs.* in the context of an *inter partes* review).

The parties dispute the meanings of three claim limitations, namely, (1) “computer telephony interpretation event(s),” as recited in independent claims 8 and 15, and “computer telephony interaction event,” as recited in dependent claim 13 (Pet. 12–17; PO Resp. 4, 12–15, 24; Pet. Reply 3; PO Sur-Reply 3–4); (2) “processing said telephonic communication into a plurality of computer telephony interpretation event[s],” as recited in independent claims 8 and 15 (Pet. 20–21; PO Resp. 23–25; Pet. Reply 3–7; PO Sur-Reply 4–7); and (3) “processing said telephonic communication into constituent voice data,” as recited in independent claim 15 and dependent

claim 14 (Pet. 21–22; PO Sur-Reply 7–10). To the extent necessary to resolve the controversy before us, we address claim interpretation in our unpatentability analysis below.

D. Obviousness of Claims 8, 9, 14–16, and 20 over the Combination of Watson and Konig

Petitioner contends claims 8, 9, 14–16, and 20 are unpatentable under 35 U.S.C. § 103(a) as obvious over the combination of Watson (Ex. 1002) and Konig (Ex. 1003).³ Pet. 22–87; Pet. Reply 2–16. Patent Owner opposes Petitioner’s contentions. PO Resp. 15–40; PO Sur-Reply 1–24. For the reasons expressed below, and based on the complete record before us, we determine that Petitioner has demonstrated by a preponderance of evidence that claims 8, 9, 14–16, and 20 are unpatentable as obvious over the combination of Watson and Konig. We turn first to overviews of Watson and Konig.

1. Overview of Watson

Watson generally relates to a system for automated scoring of interactions, such as telephone calls, between customers and call center agents. Ex. 1002 ¶ 2. Figure 1 of Watson is reproduced below.

³ Watson and Konig were not of record during prosecution of the ’523 patent. *See* Ex. 1001, code (56); Pet. 3.

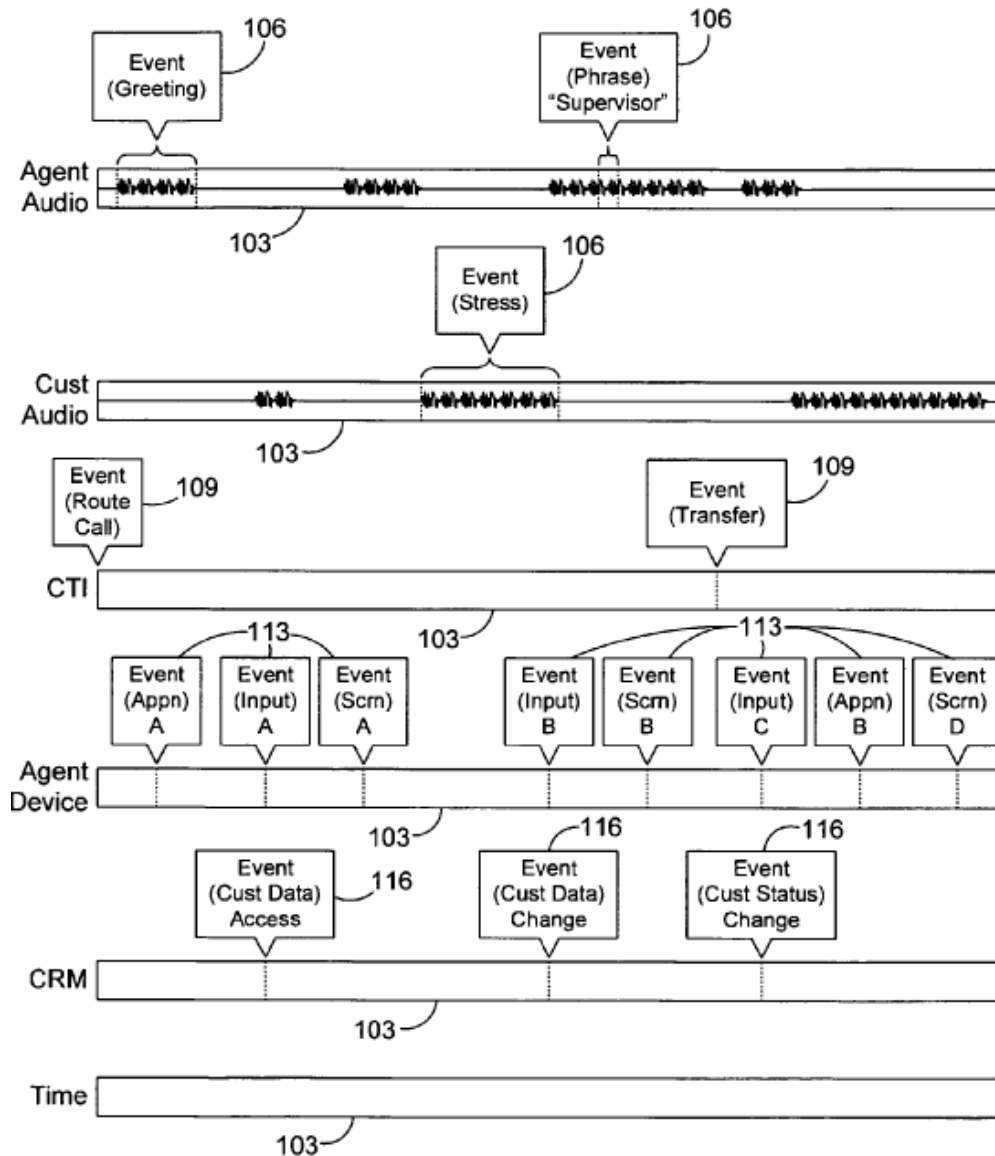


FIG. 1

100

Figure 1 is an illustration showing several interactive factors that are memorialized for an interaction in order to generate a score for the interaction.

Ex. 1002 ¶ 7, Fig. 1.

Figure 1 depicts interaction 100 comprising “a number of different interactive factors 103 that are memorialized during the recording or storing of the interaction 100 itself.” Ex. 1002 ¶ 14. Interactive factors 103 are,

from top to bottom, agent audio, customer audio, “computer telephony integration factors that relate to the operation of computer telephony that controls the telephone connections in a given call center,” operations of an agent device during the interaction, operations of a customer relations management (CRM) system during the interaction, and a time duration of the interaction. *Id.* ¶¶ 14–15.

Watson’s automated interaction scoring system identifies events associated with each interactive factor. Ex. 1002 ¶ 16. The system (1) determines a classification (e.g., sales support, accounting or billing) for the interaction, (2) analyzes the interaction to identify events and/or patterns of events in the interaction as defined by rules applicable to the determined classification (e.g., the “utterance of a given phrase or word”), and (3) generates an interaction score indicating the “value” of the interaction, which can be used to rank the interaction relative to others. *Id.* ¶¶ 30, 33–34, 37–42, 47–53, Figs. 4, 6. For example, as shown in Figure 1 above, analysis of interaction 100 may result in identifying three audio events 106 (“greeting event,” “stress event,” and utterance of the word “Supervisor”) and two computer telephony integration (CTI) events 109 (initial call routing and call transfer). *Id.* ¶¶ 16–17. Figure 3C of Watson is reproduced below.

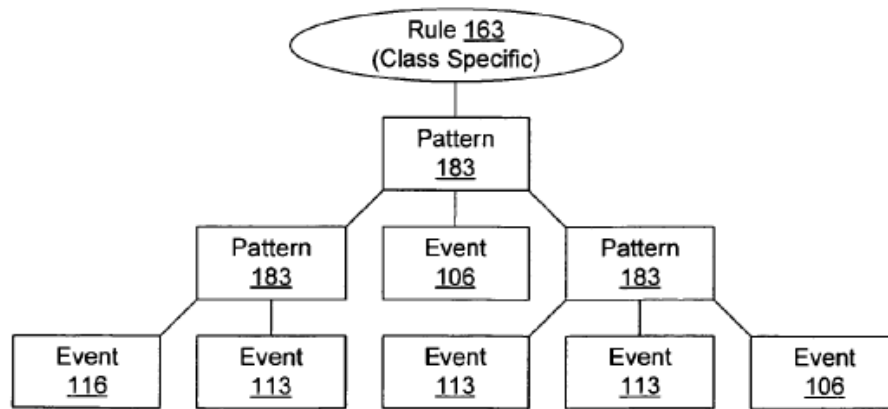


FIG. 3C

Figure 3C is a diagram showing an example of rules applied by Watson's system to generate a score for an interaction.

Ex. 1002 ¶ 9, Fig. 3C. Figure 3C depicts class specific rule 163 defining patterns as “multiple events” (e.g., audio events, CTI events), “multiple patterns,” or “any combination of the two.” *Id.* ¶¶ 33–35.

Petitioner contends Watson qualifies as prior art under 35 U.S.C. § 102(e) based on its filing date. Pet. 3. We have no evidence of an invention date other than the earliest possible effective filing date of the challenged claims. We determine that Watson qualifies as prior art under 35 U.S.C. § 102(e) because Watson's filing date of June 30, 2006, is before the earliest possible effective filing date of the challenged claims, which is September 28, 2007. Ex. 1001, codes (22), (60); Ex. 1002, code (22).

2. Overview of Konig

Konig generally relates to a system for “automatically classifying a communication involving at least one human, e.g., a human-to-human telephone conversation, into predefined categories of interest, e.g., ‘angry customer.’” Ex. 1003, code (57). The system identifies linguistic events (e.g., “words, phrases, and sentences”) and non-linguistic events

(e.g., “silence, tone, and pitch”) within a communication by, for example, “word spotting,” and classifies the communication according to an overall confidence level. *Id.* at 3:13–26. The system receives user input to define categories according to particular words and phrases, and generates synonyms for those entered words and phrases once the user does so. *Id.* at 6:6–17. A call can then be classified according to the following process:

- 1) a call is recorded or reviewed in real time as an acoustical file (e.g., a standard wave file); 2) an acoustical speaker separation is performed to distinguish Speaker A from Speaker B; 3) word spotting is performed to detect certain words or phrases for a particular event based on the occurrence or non-occurrence of certain words or phrases, including user-entered words and phrases and system-generated semantically equivalent words and phrases; 4) each event is given a particular confidence level based on whether the event occurred; 5) an overall confidence level for the classification is then determined; and 6) the call is classified into one or more categories corresponding to the events detected, in accordance with the overall confidence level.

Id. at 11:12–30. Figure 1 of Konig is reproduced below.

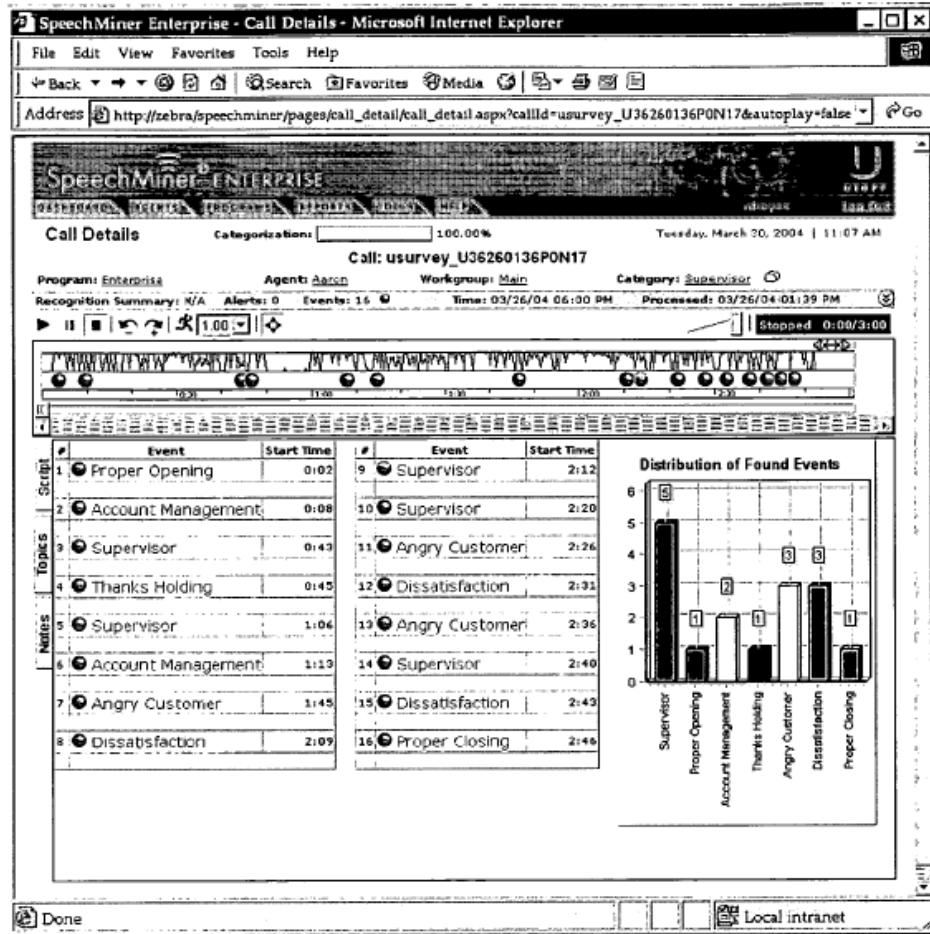


Figure 1

Figure 1 is a screen shot of a user interface “Dashboard” showing call details in the “Supervisor” category.

Ex. 1003, 3:64–67, Fig. 1.

Figure 1 depicts a “Dashboard” “graphical user interface enabling users to interact with the classification system via [a] Web browser.” *Id.* at 5:22–25, 49–50. The page shows details for a call in the “Supervisor” category, including a timeline of the audio file, the determined category for each event (e.g., “Proper Opening,” “Account Management,” “Supervisor,” “Angry Customer”), and the distribution of events identified in the call (e.g., five Supervisor events, three Angry Customer events). *Id.* at 5:49–62.

Petitioner contends that Konig qualifies as prior art under 35 U.S.C. § 102(e) based on its filing date. Pet. 3. We have no evidence of an invention date other than the earliest possible effective filing date of the challenged claims. We determine that Konig qualifies as prior art under 35 U.S.C. § 102(e) because Konig’s filing date of June 18, 2004, is before the earliest possible effective filing date of the challenged claims, which is September 28, 2007. Ex. 1001, codes (22), (60); Ex. 1002, code (22).

3. *Independent Claim 8*

a) *“A method for analyzing a telephonic communication between one or more customers and a contact center having one or more agents”*

The preamble of claim 8 recites a “method for analyzing a telephonic communication between one or more customers and a contact center having one or more agents.” Ex. 1001, 20:24–26. Petitioner cites Watson’s disclosure of a system and method for automated scoring of interactions, where such interactions include telephone calls between customers and agents received in call centers (i.e., “contact centers”). Pet. 29–30 (citing Ex. 1002 ¶¶ 13–22, 26, 31–35, 38–41, 47–53, Figs. 1, 3A–3C, 4, 6; Ex. 1013 ¶¶ 72–74). Neither Petitioner nor Patent Owner takes a position as to whether the preamble is limiting, nor does Patent Owner present arguments disputing the relied-upon Watson disclosures. *Id.* at 29; *see generally* PO Resp. 1–40; PO Sur-Reply 1–24. Because we find that Petitioner’s cited disclosure from Watson teaches a “method for analyzing a telephonic communication between one or more customers and a contact center having one or more agents,” we need not determine whether the preamble is limiting. *See Nidec*, 868 F.3d at 1017.

b) “*recording, with a processor, onto a non-transitory computer readable medium a telephonic communication between a customer and an agent*”

As Petitioner asserts (Pet. 30), Watson discloses agents in call centers receiving telephone calls or communications from customers, and “with each call, an interaction [100] between the agent and the customer occurs.” Ex. 1002 ¶ 13; *see id.*, Fig. 1. “In some cases, the interaction is recorded or stored for further evaluation of the performance of the agent.” *Id.* “The interaction 100 comprises a number of different interactive factors 103 that are memorialized during the recording or storing of the interaction 100 itself,” where “interactive factors 103 may comprise audio signals such as one or more channels of agent and/or customer audio recorded or stored during the interaction 100 itself.” *Id.* ¶ 14. Watson also discloses processor 133 and memory 136, both coupled to local interface 139, where memory 136 stores database 146, which “includes various information such as, for example, interaction classifications 149, event rules 153, and interactions 100.” *Id.* ¶¶ 24–26.

Patent Owner does not contend that recording of a telephonic communication between a customer and an agent is absent in Watson (*see generally* PO Resp.; PO Sur-Reply), and therefore, has waived such argument (*see* 37 C.F.R. § 42.23(a)). Patent Owner instead argues that recording of the telephonic communication in claim 8 must occur *before* the claimed step of “processing said telephonic communication into a plurality of computer telephony interpretation event[s],” and more generally, that the “recording,” “processing,” “analyzing,” and “classifying” steps recited in claim 8 must be performed in the order recited therein. *See, e.g.*, PO Resp. 1–2 (“*First*, the *completed* communication is recorded. This recorded

communication is processed into a plurality of computer telephony interpretation events The events . . . are *then* analyzed and classified into types.” (emphases added)), 18–20, 25–26 (arguing “processing” must be of the “recorded telephone call” or of the “recorded telephonic communication”); PO Sur-Reply 10–11 (“[T]he patent specifically requires ‘recording’ the ‘telephonic communication’ and then ‘processing’ that *recorded* ‘telephonic communication’ into computer telephony interpretation events.”). Petitioner disputes Patent Owner’s interpretation of claim 8 to require a specific order of steps, and in particular, to require that a telephonic communication first be recorded and thereafter that the *recorded* communication be processed: “[N]othing in the claim language precludes contemporaneous recording and processing of a telephonic communication, and it is therefore improper to import such a limitation.” Pet. Reply 7; *see* Pet. 30–31. We agree with Petitioner, as discussed below.

(1) Claim Construction: Whether “Recording” a Telephonic Communication Must Occur Before “Processing” the Telephonic Communication and Whether “Processing” Must Be of the Recording of the Communication

First, as argued by Petitioner (Pet. Reply 7), claim 8 broadly recites the steps of “recording” a first thing (i.e., a telephonic communication, or more simply, data); “processing” the first thing (data) into a second thing (other data); “analyzing” the second thing; and “classifying” the second thing, but notably does not recite, for example, processing *the recording of* the first thing (only processing the first thing).⁴ In other words, there is no

⁴ Patent Owner argues that “to carry Petitioner’s burden, the Petition would have had to show one or more references teaching processing a *first* thing [i.e., first data] . . . into a *second* thing [i.e., second data] . . . followed by

other step that is contingent on the completion of the “recording” step. Indeed, claim 8 does not recite any limitation precluding the recording of a telephonic communication and the processing of the telephonic communication from being executed substantially concurrently or even in reverse order, particularly where these functions are performed by a computer (*see* Ex. 1001, 5:43–61). Thus, the claim language itself does not support Patent Owner’s proffered construction that the steps of claim 8 *must* be performed in the recited order or that the processing step requires processing of the recording of the telephonic communication. *See Baldwin Graphic Sys., Inc. v. Siebert, Inc.*, 512 F.3d 1338, 1345 (Fed. Cir. 2008) (“[A]lthough a method claim necessarily recites the steps of the method in a particular order, as a general rule the claim is not limited to performance of the steps in the order recited, unless the claim explicitly or implicitly requires a specific order.”).

Second, claims must be interpreted “‘in view of the specification’ *without unnecessarily importing limitations from the specification into the claims.*” *E-Pass Techs., Inc. v. 3Com Corp.*, 343 F.3d 1364, 1369 (Fed. Cir. 2003) (citing *Texas Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1203–04 (Fed. Cir. 2002)) (emphasis added). Here, the Specification explicitly states that steps of the “present invention” are not limited to a particular sequence:

Alternate implementations are included within the scope of the embodiments of the present invention in which *functions may be executed out of order from that shown or discussed*, including

analyzing and classifying that *second* thing [i.e., second data]” PO Resp. 19–20. We note that here Patent Owner argues claim 8 requires processing of “a first thing” and not processing of *a recording of* the first thing.

substantially concurrently or in reverse order, depending on the functionality involved, as would be understood by those having ordinary skill in the art.

Ex. 1001, 5:37–42 (emphases added). Also, the Specification explicitly contemplates analyzing voice data by applying analysis models directly to *audio waveforms or audio streams*, and not only to files containing recorded voice data or voice data translated into text. *See* Ex. 1001, 9:21–26.

Although Patent Owner identifies certain embodiments in the Specification that include processing of a recording of a telephonic communication (*see, e.g.*, PO Sur-Reply 10–11 (citing, *e.g.*, Ex. 1001, Figs. 10–11)), Patent Owner does not cite any supporting evidence to show that the patentee acted as its own lexicographer or disavowed claim scope to restrict the steps set forth in claim 8 to the particular order recited therein, or to restrict “processing” in claim 8 to acting only on a recording of a telephonic communication. *See Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012) (To act as its own lexicographer, a patentee must “clearly set forth a definition of the disputed claim term,” and “‘clearly express an intent’ to redefine the term.”); *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (holding that an inventor may define specific terms used to describe an invention, but must do so “with reasonable clarity, deliberateness, and precision” and, if done, “‘must set out his uncommon definition in some manner within the patent disclosure’ so as to give one of ordinary skill in the art notice of the change” in meaning) (quoting *Intellicall, Inc. v. Phonometrics, Inc.*, 952 F.2d 1384, 1387–88 (Fed. Cir. 1992)); *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1341 (Fed. Cir. 2001) (Disavowal requires that “the specification [or prosecution history] makes clear that the invention does not

include a particular feature.”). Thus, the Specification, as a whole, does not support Patent Owner’s proffered construction that the steps of claim 8 *must* be performed in the recited order or that the processing step requires processing of the recording of the telephonic communication.

Third, turning to the prosecution history of the ’523 patent, neither party directs us with particularity to any statements in the prosecution history that inform this analysis.

Based on the foregoing intrinsic evidence, we conclude that “recording . . . a telephonic communication” as recited in claim 8 need not (but may) occur before “processing said telephonic communication,” and that such “processing” is of the “telephonic communication,” which includes (but is not required to be) the recording of the telephonic communication. Because this construction resolves the controversy before us, we need not further decide whether the recited steps in claim 8 include other order-of-performance limitations. *See Vivid Techs.*, 200 F.3d at 803.

Nevertheless, Patent Owner submits extrinsic evidence—expert testimony—to support its interpretation of claim 8 to require a specific order of steps, and in particular, to require that a telephonic communication first be recorded and thereafter that the *recorded* communication be processed. In particular, Patent Owner argues: “Mr. Zatkovich’s uncontroverted testimony is that the patent specifically requires ‘recording’ the ‘telephonic communication’ and then ‘processing’ that *recorded* ‘telephonic communication’ into computer telephony interpretation events.” PO Sur-Reply 10 (citing Ex. 2006 ¶¶ 28–33, 37–38, 64, 72). But Mr. Zatkovich’s testimony here relies upon limited portions of the record and fails to address the full intrinsic evidence discussed above, and therefore, we are not

persuaded by Patent Owner’s argument and the underlying testimony. That is, the issue at hand is not whether the Specification in fact discloses embodiments where recording occurs before processing or processing is of the recording of a telephonic communication (to which Mr. Zatkovich testifies), but rather to determine the *scope* of claim 8 in view of the *complete* Specification under pertinent claim construction principles (as discussed above). In view of this claim construction, we find Patent Owner’s argument that Watson needs to teach the “recording” step completing prior to other steps beginning to be unavailing. *See, e.g.*, PO Resp. 1–2, 18–20, 25–26; PO Sur-Reply 10–11.

(2) *Conclusion*

Based on the foregoing evidence, Petitioner contends, and we find, Watson teaches “recording, with a processor, onto a non-transitory computer readable medium a telephonic communication between a customer and an agent,” as recited in claim 8. *See* Pet. 30–31 (citing Ex. 1013 ¶¶ 75–77); *id.* at 31–33.

c) “*processing said telephonic communication into a plurality of computer telephony interpretation event[s]*”

Petitioner contends Watson discloses “processing said telephonic communication into a plurality of computer telephony interpretation event[s],” as recited in claim 8. Pet. 33–40 (citing Ex. 1002 ¶¶ 14, 16, 17, 34, 35, 39, 49–52, Fig. 1; Ex. 1013 ¶¶ 83–92). Patent Owner responds that ““processing said telephonic communication into a plurality of computer telephony interpretation event[s]’ requires, at a minimum, *converting the words of the conversation into text*,” and “*Watson* does not do this,” because “*Watson* only analyzes ‘audio’ and ‘events.’” PO Resp. 24 (emphasis

added). We turn first to determining the meanings of “processing” and “computer telephony interpretation event[s]” as recited in claim 8.

(1) Claim Construction: “processing [A] into a plurality of [Bs]”

Petitioner argues “processing” as used in claim 8 means “analyzing said telephonic communication to identify a plurality of computer telephony interpretation events.” Pet. 20 (citing Ex. 1013 ¶ 57). As noted above, Patent Owner argues that “processing” of a telephonic communication “requires, at a minimum, converting the words of the conversation into text.” PO Resp. 24. We disagree with Patent Owner, and are persuaded by Petitioner’s proposed construction, as discussed below.

First, as argued by Petitioner (Pet. 20–21; Pet. Reply 3–7), claim 8 broadly recites “processing [A] into a plurality of [Bs]” in the context of computers and computer processing (*see* Ex. 1001, 5:43–61), and, notably, does not recite any limitation requiring conversion of audio data to text data. *See* Pet. Reply 4 (“[T]he claim language says nothing about translating audio into text.”). Indeed, neither independent claim 8 nor any of the challenged independent or dependent claims (or any other claim) of the ’523 patent recites or otherwise necessitates the use of text, data conversion, or the conversion of audio data to text data. Thus, the claim language itself does not support Patent Owner’s proffered construction.

Second, as noted above, claims must be interpreted “‘in view of the specification’ *without unnecessarily importing limitations from the specification into the claims.*” *E-Pass Techs.*, 343 F.3d at 1369 (emphasis added). Here, the Specification explicitly states that “it is contemplated by the present invention” that functions “in accordance with the present

invention” can be applied directly to audio data, *without conversion to text data*:⁵

Even with conventional audio mining technology, application of analysis models directly to an audio file can be very difficult. In particular, disparities in dialect, phonemes, accents and inflections can impede or render burdensome accurate identification of words. And while *it is contemplated by the present invention that mining and analysis in accordance with the present invention can be applied directly to voice data configured in audio format*, in a *preferred embodiment* of the present invention, the voice data to be mined and analyzed is first translated into a text file. It will be understood by those of skill that the translation of audio to text and subsequent data mining may be accomplished by systems known in the art.

Ex. 1001, 15:48–60 (emphases added); *see* Pet. Reply 4–5 (“Because the patent specification expressly contemplates embodiments in which *no* transcription to text is used, it would be improper to limit “processing said telephonic communication” to require transcription into a text file.”). The Specification makes clear that converting audio (voice) data into text data is part of a *preferred* embodiment, not the only contemplated embodiment. *See* Ex. 1001, 9:21–26 (“When analyzing voice data, it is preferable to work from a true and clear hi-fidelity signal. This is true *both* in instances in which the voice data is being translated into a text format for analysis, *or in instance in which an analysis model is being applied directly to an audio waveform, audio stream or file containing voice data.*” (emphases added)).

Nevertheless, Patent Owner identifies various embodiments in the Specification that include the function of converting audio data to text data,

⁵ Patent Owner characterizes this disclosure as “irrelevant evidence.” PO Sur-Reply 6. We disagree, and find this disclosure is not only relevant, but clearly contradicts arguments proffered by Patent Owner, at least for purposes of claim construction, as we discuss herein.

and argues this “requires the claimed invention to ‘process’ calls into rendered text for ‘analyzing’ and ‘classifying.’” PO Sur-Reply 4–5; *see id.* at 4–7. Patent Owner also argues the Specification “disparages performing the claimed process without conversion, as ‘disparities in dialect, phonemes, accents and inflections can impede or render burdensome accurate identification of words,’” relying on a snippet of the very disclosure reproduced above that also states that functions *in accordance with the present invention* can be applied directly to voice data configured in audio format. *Id.* at 6. We are not persuaded by Patent Owner’s arguments, which do not address other disclosures in the Specification as discussed above.

Moreover, Patent Owner does not cite any supporting evidence to show that the patentee acted as its own lexicographer or disavowed claim scope such that “processing” as recited in claim 8 requires converting audio data to text data. *See Thorner*, 669 F.3d at 1365; *Paulsen*, 30 F.3d at 1480; *SciMed Life Sys.*, 242 F.3d at 1341 (Disavowal requires that “the specification [or prosecution history] makes clear that the invention does not include a particular feature.”); *see also* Tr. 23:16–19 (“[W]here do you find express disclaimer of working with only the audio file out of this text? . . . The way that the patent is written there is – there’s no explicit disclaimer, Your Honor.”). Indeed, despite the patentee’s acknowledgement that certain data in an audio file of a telephonic communication could be identified both by processing the audio file directly or by converting the audio file to a text file and processing that text file (Ex. 1001, 15:48–60), the patentee chose to define the invention in claim 8 using the broad term “processing,” without any recitation in any claim to text, conversion, or conversion from audio to text data.

Patent Owner also argues that “processing” in “processing said telephonic communication into a plurality of computer telephony interpretation event[s]” “requires converting the audio data to text because the ensuing ‘analyzing’ and ‘classifying’ steps *operate solely on text*.” PO Sur-Reply 5 (emphasis added, alteration in original). Patent Owner further argues “[n]either Petitioner nor its expert explains how the claims can search for and identify ‘*text*-based keywords’ in unconverted voice data.” PO Sur-Reply 7 (citation omitted). But Patent Owner’s arguments here are based on a false premise, namely, that claim 8 (or any challenged claim) *requires* operations on *text*. Claim 8 recites “analyzing” and “classifying” “computer telephony interpretation event[s],” without any explicit recitation or requirement for text or operations on text. Further, as discussed below, “computer telephony interpretation event[s]” include non-text data, such as CTI (computer telephony integration) events (e.g., a “hold” event), which means the claimed analyzing and classifying does not operate solely on text. Thus, the Specification, as a whole, does not support Patent Owner’s proffered construction.

Third, turning to the prosecution history of the ’523 patent, neither party directs us with particularity to any statements in the prosecution history that inform this analysis.

Based on the foregoing intrinsic evidence, we agree with Petitioner and conclude that “processing said telephonic communication into a plurality of computer telephony interpretation event[s],” as recited in claim 8, means simply what it says—that is, “analyzing said telephonic communication to identify a plurality of computer telephony interpretation events,” and does not require conversion of any audio (voice) data to text

data. Because this construction resolves the controversy before us, we need not further define “processing” as used in this limitation. *See Vivid Techs.*, 200 F.3d at 803.

(2) *Claim Construction: “computer telephony interpretation event[s]”*

Petitioner argues “computer telephony interpretation event[s]” means “a genus of a CTI (computer telephony integration) event, a ‘communication object’ [i.e., words spoken by a participant on a call]⁶ and a ‘segment,’ such that each computer telephony interpretation or interaction event could be a [1] CTI event, [2] communication object, or [3] segment.” Pet. 16; *see id.* at 12–17. Patent Owner argues “‘computer telephony interpretation events’ encompasses a genus of [1] a computer telephony integration event (CTI event) and [2] a communication object.” PO Resp. 15; *see id.* at 12–15. The parties’ proposed constructions differ in that Petitioner includes “segments” within the scope of “computer telephony interpretation event[s]” and Patent Owner does not. However, Petitioner submits “[e]ven under Patent Owner’s more limited construction, however, which essentially removes ‘segment’ from Petitioner’s proposed construction, the Petition demonstrates that CTI events and/or communication objects and/or combined CTI events and/or communication objects (*e.g.*, *Watson’s* pattern(s)) are used in the prior art

⁶ Petitioner contends, and Patent Owner does not dispute, that “[t]he term ‘communication(s) objects’ should be interpreted to mean words spoken by a participant on a call,” as that term is recited in claims 14, 15, and 20. Pet. 18 (citing Ex. 1013 ¶ 51); *see* Ex. 1001, Fig. 12. We agree with Petitioner’s explanation in the Petition (Pet. 18–19), and construe “communication(s) objects” to mean “words spoken by a participant on a call.” Also, because the claims initially recite “communication objects” and then subsequently refer to “the communications objects,” we interpret the terms to mean the same thing in the context of the claims.

and render each challenged claim unpatentable.” Pet. Reply 3; *see* Tr. 10:11–17. Because both parties agree that “computer telephony interpretation event[s]” include a genus of CTI (computer telephony integration) events and communication objects (words), which we find to be supported by the evidence, and because we need not further construe this limitation to resolve the controversy before us, we adopt this meaning for purposes of this Decision. *See Vivid Techs.*, 200 F.3d at 803.

(3) *Watson’s Disclosures*

Watson discloses, as shown in Figure 1 (reproduced above), identifying interactive factors 103 in an interaction 100 between an agent and a customer, including identifying both (1) CTI *events* 109 (e.g., initial call routing, call transfer, or “on hold”) and (2) audio *events* 106 (e.g., “greeting event,” “stress event,” and the word “Supervisor”), which are “communication objects” because they are based on the utterance of a particular word or phrase. *See* Ex. 1002 ¶¶ 14, 16, 17, 39, 49–52, Fig. 1; Ex. 1013 ¶¶ 83–92. Watson also discloses that “interactive factors 103 . . . are memorialized during the recording or storing of the interaction 100 itself.” Ex. 1002 ¶ 14. Petitioner argues that these descriptions in Watson teach analyzing a telephonic communication (e.g., interaction 100) to identify a plurality of computer telephony interpretation events (e.g., events 106 and 109). Pet. 33–40 (citing Ex. 1002 ¶¶ 14, 16, 17, 34, 35, 39, 49–52, Fig. 1; Ex. 1013 ¶¶ 83–92).

Patent Owner argues Watson does not disclose the “processing” limitation of claim 8 because “*Watson* does not convert any of the interaction 100 into text and operates only on ‘audio events’ or ‘audio.’” PO Resp. 24; *see, e.g., id.* at 26–27 (“[I]dentifying audio events does not involve

conversion of audio to text, so it cannot meet the claimed ‘processing’ step.”). But as discussed above, because we do not adopt Patent Owner’s proposed construction requiring such conversion of audio to text, we find Patent Owner’s “conversion” argument to be unavailing. Patent Owner also argues “there is simply no need in *Watson* to ‘process’ the recorded telephone call into factors because *the factors are contemporaneously generated during the recording of the telephone call.*” PO Resp. 25 (emphasis added); see, e.g., *id.* at 26 (“*Watson*’s events are not processed from a recorded telephonic communication.”). But again, as discussed above, we do not adopt Patent Owner’s proposed construction requiring “processing” to occur only after a complete recording of a telephonic communication. Instead, as explicitly stated in the Specification, “functions [of the present invention] may be executed out of order from that shown or discussed, including substantially concurrently or in reverse order.” Ex. 1001, 5:37–42. Therefore, we likewise determine that Patent Owner’s “contemporaneous” argument is unavailing.

(4) Conclusion

Based on the foregoing evidence, Petitioner contends, and we find, *Watson* teaches “processing said telephonic communication into a plurality of computer telephony interpretation event[s],” as recited in claim 8. See Pet. 33–40 (citing Ex. 1002 ¶¶ 14, 16, 17, 34, 35, 39, 49–52, Fig. 1; Ex. 1013 ¶¶ 83–92); *In re Burckel*, 592 F.2d 1175, 1179 (CCPA 1979) (“[A] reference must be considered not only for what it expressly teaches, but also for what it fairly suggests.”).

d) “*analyzing said plurality of computer telephony interpretation event[s]*”

Petitioner contends Watson discloses (1) “analyzing the CTI information of an interaction to identify events such as the initial receipt of a call [or] the initial routing of a call to an agent” (Pet. 40); and (2) “analyzing an interaction to identify audio events, such as a greeting event, a stress event, or an event based on an uttered word or phrase” (Pet. 42). *See* Pet. 40–46 (citing Ex. 1002 ¶¶ 16, 17, 34, 35, 39, 49, 51, 52, Figs. 1, 3B, 3C; Ex. 1013 ¶¶ 93–103). For example, Petitioner argues that “in Figure 1 of *Watson*, the system identifies two events in the CTI information, and classifies one as a ‘route call’ event and the other as a ‘transfer’ event,” and submits this discloses the subject “analyzing” limitation. *Id.* at 42.

As another example, Petitioner argues that “in Figure 1 of *Watson*, the system identifies three events in the audio, and classifies one event in the agent audio as a ‘greeting’ type event, classifies another event in the agent audio as a ‘phrase’ type event involving the word ‘supervisor,’ and classifies another event in the customer audio as a ‘stress’ type event,” and submits this also discloses the subject “analyzing” limitation. *Id.* at 44. In other words, according to Petitioner, Watson discloses *processing* interaction 100 into *events* 109 and *events* 106 (*see supra*), and *analyzing* such events for purposes of distinguishing *CTI* events 109 and *audio* events 106 and *classifying* these events 106, 109 into different types (*see infra*), such as, for example, “on hold” events, “greeting” events, and “stress” events. *See, e.g.,* Pet. Reply 9 (“[T]he Petition equates the logical operations necessary to classify a ‘word event’ as a greeting event as opposed to a stress event with the claimed analysis step. That the result of these operations classifies word

events as a greeting or stress event does not mean these operations cannot constitute the analyzing step.” (footnote omitted)).

Patent Owner argues, in conclusory fashion, that Petitioner relies on the same disclosure in Watson for teaching the “processing,” “analyzing,” and “classifying” steps of claim 8, and argues doing so is improper, citing various court and Board decisions. *See* PO Resp. 25–30; PO Sur-Reply 11–18. We disagree with Patent Owner’s characterization of Petitioner’s arguments as set forth in the Petition, and are unpersuaded by Patent Owner’s arguments directed to this limitation. Claim 8 recites, in part, “processing” a telephone call to identify “event[s],” “analyzing” the events (without further explicitly recited limitation or purpose), and “classifying” the events into different types, where such functions are performed by a computer and may occur substantially concurrently (Ex. 1001, 5:37–42). As discussed above (and below for “classifying”), in sum, Petitioner argues that Watson teaches, as reflected in Figure 1 and its related disclosure for example, identifying “events” in a telephone call (e.g., events 106, 109), “analyzing” such events to identify “CTI” events 109 and “audio” events 106 as well as for purposes of being able to classify such events, and “classifying” events 106, 109 into different types (e.g., “on hold” events, “greeting” events, and “stress” events).

Based on the foregoing evidence, Petitioner contends, and we find, that Watson teaches “analyzing said plurality of computer telephony interpretation event[s],” as recited in claim 8. *See* Pet. 40–46 (citing Ex. 1002 ¶¶ 16, 17, 34, 35, 39, 49, 51, 52, Figs. 1, 3B, 3C; Ex. 1013 ¶¶ 93–103); *Burckel*, 592 F.2d at 1179.

e) “classifying said plurality of computer telephony interpretation event[s] into types a first type and a second, different type”

Petitioner contends that Watson discloses (1) classifying CTI events 109 into different types, such as “the initial receipt of a call, the initial routing of a call to an agent, a pickup by an agent, a transfer of a call between agents, or a placing of a call on hold” (Pet. 46); and (2) classifying audio events 106 into different types, such “a ‘greeting’ type event,” “a ‘stress’ type event,” and “a ‘phrase’ type event” (Pet. 50). Petitioner argues that these descriptions in Watson disclose classifying events (e.g., CTI events 109, audio events 106) into a first type (e.g., “on hold” events) and a second, different type (e.g., “greeting” events). *See* Pet. 46–51 (citing Ex. 1002 ¶¶ 16, 17, 34, 35, 39, 49, 51, 52, Figs. 1, 3B, 3C; Ex. 1013 ¶¶ 104–112).

Patent Owner again argues, in conclusory fashion, that Petitioner relies on the same disclosure in Watson for teaching the “processing,” “analyzing,” and “classifying” steps of claim 8, and argues doing so is improper, citing various court and Board decisions. *See* PO Resp. 25–30; PO Sur-Reply 11–18. We disagree with Patent Owner’s characterization of Petitioner’s arguments as set forth in the Petition, and find Patent Owner’s arguments directed to this limitation to be unavailing, for the same reasons expressed above for the “analyzing” limitation.

Based on the foregoing evidence, Petitioner contends, and we find, Watson teaches “classifying said plurality of computer telephony interpretation event[s] into types a first type and a second, different type,” as recited in claim 8. *See* Pet. 46–51 (citing Ex. 1002 ¶¶ 16, 17, 34, 35, 39, 49, 51, 52, Figs. 1, 3B, 3C; Ex. 1013 ¶¶ 104–112); *Burckel*, 592 F.2d at 1179.

f) Konig

As explained above, based on the complete record before us and the claim constructions we adopt herein, we determine that Watson teaches all of the limitations in claim 8, and therefore, Petitioner’s reliance on Konig (Ex. 1003) in the alternative to also teach “recording” before “processing” (*see* Pet. 31–33) and separate “processing,” “analyzing,” and “classifying” steps (*see* Pet. 39–40, 45–46, 51–56) is unnecessary. Accordingly, we do not address Konig in connection with claim 8.

g) Conclusion

For the reasons expressed above, and based on the complete record before us, we conclude that Petitioner has demonstrated by a preponderance of evidence that the teachings of Watson render claim 8 unpatentable as obvious.

4. Dependent Claim 9

Claim 9 depends from independent claim 8, and further recites “wherein the types are *selected from the group consisting of* setup, information exchange, miscommunication, non-interaction, conversation, positive comments, and combinations thereof.” Ex. 1001, 20:37–40 (emphasis added). This claim presents a Markush grouping of “types,” and therefore, the subject limitation is satisfied by prior art “if one alternative [type] in the Markush group is in the prior art.” *Fresenius USA, Inc. v. Baxter Intern., Inc.*, 582 F.3d 1288, 1298 (Fed. Cir. 2009); MANUAL OF PATENT EXAMINING PROCEDURE (“MPEP”), § 2117, Ninth Edition, Rev. 10.2019 (Last Revised June 2020).

Among other disclosures in Watson, Petitioner points to an “initial receipt of a call” CTI event as an example of a “setup” type event and a

“placing a call on hold” CTI event as an example of a “non-interaction” type event. Pet. 60 (citing Ex. 1002 ¶ 17; Ex. 1013 ¶ 122); *see* Pet. 56–66; Ex. 1001, 17:5–7 (challenged patent disclosing that “[n]oninteraction type classifications may be based on CTI events”).

Patent Owner does not contest that this limitation is present in Watson. *See* generally PO Resp. Any such argument has been waived. *See* 37 C.F.R. § 42.23(a).

Based on the foregoing evidence, Petitioner contends, and we find, that Watson teaches “the types are selected from the group consisting of setup, information exchange, miscommunication, non-interaction, conversation, positive comments, and combinations thereof,” as recited in claim 9. *See* Pet. 56–66. For the same reasons provided above for independent claim 8, as well as the foregoing arguments and evidence submitted by Petitioner concerning dependent claim 9, we conclude that Petitioner has demonstrated by a preponderance of evidence that the teachings of Watson render claim 9 unpatentable as obvious.

5. Dependent Claim 14

Claim 14 depends from independent claim 8, and further recites:

The method of claim 8 further comprising the steps of:
processing said telephonic communication into constituent voice data;
analyzing said constituent voice data to form communication objects;
classifying the communications objects into types; and
forming segments of communications objects.

Ex. 1001, 20:61–67.

a) “processing said telephonic communication into constituent voice data”

Watson discloses that a plurality of interactive factors 103 are memorialized for each interaction 100, including “audio signals such as one or more channels of agent and/or customer audio recorded or stored during the interaction 100 itself.” Ex. 1002 ¶ 14, Fig. 1; *see* Ex. 1013 ¶¶ 135–137. Further, Watson discloses in Figure 1, reproduced above, separate “Agent Audio” and “Cust[omer] Audio,” each with various audio (voice) signals characterized as “Event[s]” and particularly, for example, as “Greeting” or “Stress” events. Ex. 1002, Fig. 1. Petitioner argues that these descriptions in Watson teach “processing said telephonic communication into constituent voice data.” Pet. 68 (citing Ex. 1002 ¶ 14, Fig. 1; Ex. 1013 ¶¶ 135–137); Pet. Reply 12–14.

Patent Owner generally disputes whether Watson discloses all of the limitations of dependent claim 14 when combined with independent claim 8, alleging that Petitioner improperly relies on the same disclosures in Watson to teach multiple steps of claim 14 (including claim 8). *See* PO Resp. 30–32; PO Sur-Reply 20–22. We disagree with Patent Owner’s characterization of Petitioner’s arguments as set forth in the Petition, and find Patent Owner’s arguments directed to this limitation to be unavailing. For example, we find no inconsistency or impropriety in Petitioner relying on Watson’s disclosure of (a) recording or storing interaction 100 (a telephonic communication) to teach recording a customer-agent telephonic communication in claim 8 (*see* Section II.D.3.b, *supra*); and (b) memorializing interactive factors 103, including separate audio signals for one or more channels of agent audio (voice data) and of customer audio (voice data) to teach processing a

telephonic communication into its constituent voice data in claim 14, as discussed above.

Based on the foregoing evidence, Petitioner contends, and we find, Watson teaches “processing said telephonic communication into constituent voice data,” as recited in claim 14. *See* Pet. 68 (citing Ex. 1002 ¶ 14, Fig. 1; Ex. 1013 ¶¶ 135–137); Pet. Reply 12–14; *Burckel*, 592 F.2d at 1179.

b) “analyzing said constituent voice data to form communication objects”

Watson discloses, as shown in Figure 1 (reproduced above), identifying interactive factors 103 in an interaction 100 between an agent and a customer, including identifying audio events 106 (e.g., “greeting event,” “stress event,” and “utterance of a given word or phrase”) in each of the constituent voice data, namely the agent audio data and the customer audio data, where such audio events 106 constitute “communication objects” because they are based on the utterance of a particular word or phrase. *See* Ex. 1002 ¶¶ 14, 16, Fig. 1; Ex. 1013 ¶¶ 141–145). Petitioner argues that these descriptions in Watson teach analyzing constituent voice data (e.g., agent audio data and customer audio data) to form communication objects (e.g., words or audio events 106). Pet. 70–72 (citing Ex. 1002 ¶ 16, Fig. 1; Ex. 1013 ¶¶ 141–145).

As noted above, Patent Owner generally disputes whether Watson discloses all of the limitations of dependent claim 14 when combined with independent claim 8, alleging that Petitioner improperly relies on the same disclosures in Watson to teach multiple steps of claim 14 (including claim 8). *See* PO Resp. 30–32; PO Sur-Reply 20–22. We disagree with Patent Owner’s characterization of Petitioner’s arguments as set forth in the Petition, and are unpersuaded by Patent Owner’s arguments directed to this

limitation. For example, we find no inconsistency or impropriety in Petitioner relying on Watson’s disclosure of (a) identifying both CTI events 109 and audio events 106 in an interaction 100 (a telephonic communication) between an agent and a customer to teach processing a telephonic communication into a plurality of computer telephony interpretation events in claim 8 (*see* Section II.D.3.c, *supra*); and (b) identifying audio events 106 (e.g., “utterance of a given word or phrase”) in each of the separate channels of agent audio (voice data) and customer audio (voice data) to teach analyzing constituent voice data (agent/customer audio data) to form communication objects (words) in claim 14, as discussed above. Indeed, the “telephonic communication” processed in claim 8 includes the “constituent voice data” analyzed in claim 14 (i.e., the telephonic communication between an agent and customer comprises the constituent voice data for each of the agent and customer); and the “computer telephony interpretation event[s]” identified by processing the “telephonic communication” in claim 8 include “communication objects” identified in the “constituent voice data” in claim 14 (*see* Section II.D.3.c.2, *supra*). Thus, we find Petitioner properly relies on the foregoing disclosures to teach the “processing” limitation in claim 8 and “analyzing” limitation in claim 14.

Patent Owner also argues “*Watson* does not teach analyzing the constituent voice data to form communication objects,” and “merely [teaches] identifying events that already exist does not constitute ‘analyzing said constituent voice data to form communication objects.’” PO Resp. 31. But Patent Owner does not explain this conclusory argument. Petitioner assumes Patent Owner is assigning a narrow definition to the verb “form” in

the limitation “to *form* communication objects” in order to exclude Watson’s actions like “identifying” communication objects, although Patent Owner does not provide any definition for “form.” Pet. Reply 12–13 (“Patent Owner takes a strained view of the term ‘form,’ whereas the Petition takes an appropriately broad view such that it encompasses identifying.”); *see* PO Resp. 31; PO Sur-Reply 20–22. Patent Owner responds that, in the ’523 patent, “the communications objects *do not exist* in the recorded call and must be derived by ‘processing’ the telephonic communication into constituent voice data and analyzing the constituent voice data to form communication objects,” whereas “[i]n *Watson*, events (‘interactive factors’) are *already identified and classified* at the time any alleged “processing” occurs.” PO Sur-Reply 21–22. We are not persuaded by Patent Owner’s argument.

It appears Patent Owner is limiting the term “form” as used here to mean “create” (from not existing to existing), which is not supported by the Specification, and Patent Owner does not direct us to any such supporting evidence. In both the ’523 patent and *Watson*, the recorded telephonic communication between an agent and customer includes, *inter alia*, all the words spoken by the parties to the call, and those spoken words are called “communication objects” in the ’523 patent (*see* Section II.D.3.c.2, *supra*). *See* Ex. 1001, 16:18–23 (describing “the words of the CSR [agent] and customer as communications objects”). Both the ’523 patent and *Watson* analyze the telephonic communication (or its constituent voice data, i.e., separate agent and customer audio data) to identify (determine, assemble, cull out, etc.) particular “communication objects” or “words” of interest. No words are “created,” as they existed in the recording of the call once

uttered by a participant. Instead, as discussed above, both the '523 patent and Watson seek to identify such words of interest for various purposes. Thus, we find that analyzing constituent voice data “to form” communication objects includes doing so “to identify” such objects.

Based on the foregoing evidence, Petitioner contends, and we find, Watson teaches “analyzing said constituent voice data to form communication objects,” as recited in claim 14. *See* Pet. 70–72 (citing Ex. 1002 ¶ 16, Fig. 1; Ex. 1013 ¶¶ 141–145); Pet. Reply 12–14; *Burckel*, 592 F.2d at 1179.

c) “classifying the communications objects into types”

Petitioner contends Watson discloses classifying audio events 106 into types, such as a “greeting” type event, a “stress” type event, and an event type involving “a given word or phrase,” in each of the constituent voice data, namely the agent audio data and the customer audio data, where such audio events 106 constitute “communication objects” because they are based on the utterance of a particular word or phrase. Pet. 72–75 (citing Ex. 1002 ¶ 16, Fig. 1; Ex. 1013 ¶¶ 146–150). Petitioner argues that these descriptions in Watson teach classifying communications objects (words like audio events 106) into types (e.g., “greeting” type event or “phrase” type event involving the word “supervisor”). *Id.*

As noted above, Patent Owner generally disputes whether Watson discloses all of the limitations of dependent claim 14 when combined with independent claim 8, alleging that Petitioner improperly relies on the same disclosures in Watson to teach multiple steps of claim 14 (including claim 8). *See* PO Resp. 30–32; PO Sur-Reply 20–22. We disagree with Patent Owner’s characterization of Petitioner’s arguments as set forth in the

Petition, and are unpersuaded by Patent Owner’s arguments directed to this limitation. For example, we find no inconsistency or impropriety in Petitioner relying on Watson’s disclosure of (a) classifying CTI events 109 and audio events 106 into different types to teach classifying a plurality of computer telephony interpretation events into different types in claim 8 (*see* Sections II.D.3.e, II.D.3.c.2, *supra*); and (b) classifying audio events 106 into types for each of the constituent voice data (agent audio data and customer audio data) to teach classifying communications objects into types in claim 14, as discussed above. Indeed, the “computer telephony interpretation event[s]” classified into different types in claim 8 include the “communications objects” classified into types in claim 14 (*see* Section II.D.3.c.2, *supra*). Thus, we find Petitioner properly relies on the foregoing disclosures as Watson’s teaching of the “classifying” limitations in claims 8 and 14.

Based on the foregoing evidence, Petitioner contends, and we find, Watson teaches “classifying the communications objects into types,” as recited in claim 14. *See* Pet. 72–75 (citing Ex. 1002 ¶ 16, Fig. 1; Ex. 1013 ¶¶ 146–150); Pet. Reply 12–14; *Burckel*, 592 F.2d at 1179.

d) “forming segments of communications objects”

Petitioner contends Watson discloses that “rules can be set up to identify patterns, which can comprise a combination of events and/or other patterns,” and that such rules may be set up “to identify a pattern consisting of a combination of an audio event and a CTI event.” Pet. 75 (citing Ex. 1002 ¶¶ 34, 35, 39, 49 51, 52, Fig. 3B; Ex. 1013 ¶¶ 151–153). Petitioner argues that Watson’s “events defined in a pattern are alike in that they belong to the same pattern.” Pet. 76. Petitioner argues “word events

(‘communication objects’) defined to be within a pattern all relate to that pattern,” and therefore, “a pattern is a ‘segment,’ and Watson discloses ‘forming segments’ of words (‘communication objects’).”⁷ Pet. 76.

As noted above, Patent Owner generally disputes whether Watson discloses all of the limitations of dependent claim 14 when combined with independent claim 8, alleging that Petitioner improperly relies on the same disclosures in Watson to teach multiple steps of claim 14 (including claim 8). *See* PO Resp. 30–32; PO Sur-Reply 20–22. We disagree with Patent Owner’s characterization of Petitioner’s arguments as set forth in the Petition (for the same reasons expressed above), and are unpersuaded by Patent Owner’s arguments directed to this limitation. Patent Owner argues Petitioner improperly relies on Watson’s identification of patterns to also teach multiple steps in claim 8 (PO Resp. 31–32), but as discussed above for claim 8, patterns are not relied upon for evaluating the patentability of that claim.

Based on the foregoing evidence, Petitioner contends, and we find, Watson teaches “forming segments of communications objects,” as recited

⁷ Petitioner contends that “segments” should be interpreted to mean “groups of like communication objects.” Pet. 19–20. Petitioner’s proposed interpretation is consistent with the Specification of the ’523 patent. *See* Ex. 1001, 15:63–16:5, 16:28–32 (“Upon classification of the customer and CSR [agent] communication objects, segments of like objects may be formed. For example, communications objects may be combined to form segments related to call setup, information exchange, non-interaction, conversation, or positive comment.”), Figs. 13–14. Patent Owner submits the same definition of “segments” as Petitioner. PO Resp. 11 (“Segments, therefore, are made up of combinations of communication objects . . .”), 13 (“Petitioner correctly identifies that segments are composed of ‘communication objects.’”). We agree with the parties, and construe “segments” to mean “groups of like communication objects.”

in claim 14. *See* Pet. 75 (citing Ex. 1002 ¶¶ 34, 35, 39, 49 51, 52, Fig. 3B; Ex. 1013 ¶¶ 151–153); Pet. Reply 12–14; *Burckel*, 592 F.2d at 1179.

e) Konig

As explained above, based on the complete record before us and the claim constructions we adopt herein, we determine that Watson teaches all of the limitations in claim 14, and therefore, Petitioner’s reliance on Konig (Ex. 1003) in the alternative to also teach “processing,” “analyzing,” “classifying,” and “forming” in claim 14 (*see* Pet. 68–79) is unnecessary. Accordingly, we do not address Konig in connection with claim 14.

f) Conclusion

For the same reasons provided above for independent claim 8, as well as the foregoing arguments and evidence submitted by Petitioner concerning dependent claim 14, we conclude that Petitioner has demonstrated by a preponderance of evidence that the teachings of Watson render claim 14 unpatentable as obvious.

6. Independent Claim 15

Independent claim 15 effectively recites verbatim the limitations of independent claim 8 combined with the limitations of dependent claim 14. *Compare* Ex. 1001, 20:24–36, *with id.* at 21:1–20 (showing claim 15 is effectively a rewriting of dependent claim 14 into independent form). Petitioner argues Watson discloses or at least fairly suggests each of the limitations in claim 15 for the same reasons as given for claims 8 and 14. Pet. 79–85 (citing Ex. 1013 ¶¶ 157–182). Patent Owner provides no additional arguments directed to this claim. *See generally* PO Resp. For the same reasons provided above for independent claim 8 and dependent claim 14, we conclude that Petitioner has demonstrated by a preponderance of

evidence that the teachings of Watson render claim 15 unpatentable as obvious.

7. *Dependent Claim 16*

Dependent claim 16 recites limitations commensurate in scope with the limitations of dependent claim 9. *Compare* Ex. 1001, 20:24–40, *with id.* at 21:1–22:2. Petitioner argues Watson teaches the limitations in claim 16 for the same reasons as given for claim 9 (and claim 15). Pet. 85–86 (citing Ex. 1013 ¶¶ 184–187). Petitioner also argues “[t]o the extent the term ‘types’ refers to the types of communications objects recited in claim 15, *Watson* discloses identifying a ‘greeting’ event (‘setup’ event) and an event involving the phrase ‘supervisor’ (‘information exchange’ event or ‘conversation’ event) in the agent audio.” Pet. 86 (citing Ex. 1002 ¶ 16, Fig. 1; Ex. 1013 ¶ 186). Patent Owner provides no additional arguments directed to this claim. *See generally* PO Resp. For the same reasons provided above for independent claim 15 and dependent claim 9, as well as the foregoing arguments and evidence submitted by Petitioner concerning dependent claim 16, we conclude that Petitioner has demonstrated by a preponderance of evidence that the teachings of Watson render claim 16 unpatentable as obvious.

8. *Dependent Claim 20*

Claim 20 depends from independent claim 15, and further recites “determining the duration of the communications objects event classified as a type.” Ex. 1001, 22:18–20. Petitioner contends Konig discloses “identifying events in a telephone conversation based on words, phrases, or sentences defined by a user, and system-generated synonym words, phrases, or sentences,” and that “each event is associated with fields, including a start

time and an end time.” Pet. 86–87 (citing Ex. 1013 ¶¶ 189–191); *see* Ex. 1003 (Konig), 5:49–57 (“FIG. 1 further illustrates how events can be charted on a typical audio wave file with a timeline.”), 10:58–61 (“The system enables a user to define or express an event by words and phrases. An event can be defined more precisely to include fields such as event name, confidence level, speaker, *start time*, *end time*.” (emphases added)), Fig. 1 (showing “Start Time” for “Events”). Petitioner also contends “[i]t would have been obvious to [the skilled artisan] . . . to identify the duration of an event by determining the difference between the start time and the end time of an event.” Pet. 87.

To support the legal conclusion of obviousness, “there must be some articulated reasoning with some rational underpinning” for combining elements in the manner claimed. *KSR*, 550 U.S. at 418 (quoting *In re Kahn*, 441 F.3d at 988). The test for obviousness is not whether the claimed invention is expressly suggested in any one or all of the references, but whether the claimed subject matter would have been obvious to those of ordinary skill in the art in light of the combined teachings of those references. *See In re Keller*, 642 F.2d 413, 425 (CCPA 1981); *Burckel*, 592 F.2d at 1179 (“[A] reference must be considered not only for what it expressly teaches, but also for what it fairly suggests.”).

Petitioner contends the skilled artisan would have been motivated to modify Watson to determine the duration of communications objects events “in order to provide users with even more insight into telephone conversations, thereby allowing the user to facilitate better customer service in the future.” Pet. 87; *see* Ex. 1003, 1:30–38 (“Naturally, companies are interested in analyzing the content as well as context of these conversations

to suit their needs, for instance, providing a better customer service, training a new employee, and so on.”). Petitioner argues that “[m]odifying the system of *Watson* to associate a start time and end time with an identified event, and to calculate an event duration based on the start time and end time, would have been well within the abilities of [the skilled artisan] and could be easily accomplished with a high chance of success,” and that “calculating the length of time of particular sections of an audio call by determining the difference between a start time and an end time of the section was quite common at the time the ’523 patent was filed.” Pet. 87 (citing Ex. 1013 ¶ 191). Petitioner’s expert, Dr. Stern, offers reasons that the skilled artisan would possess knowledge and motivation to combine the pertinent teachings of *Konig* with *Watson*. See Ex. 1013 ¶ 191. Although Patent Owner disputes whether *Konig* may be combined with *Watson* to teach other claim limitations of the challenged claims (see PO Resp. 32–40; PO Sur-Reply 22–24), Patent Owner offers no evidence to rebut Dr. Stern’s testimony in regard to *Konig*’s teaching of identifying durations of events in telephone calls, and we credit Dr. Stern’s testimony. Based on the foregoing, and on the complete record before us, we are persuaded by Petitioner’s cited evidence and explanation of the reasons for combining the teachings of *Watson* and *Konig* to arrive at the invention of claim 20.

Accordingly, for the same reasons provided above for independent claim 15, as well as the foregoing arguments and evidence submitted by Petitioner concerning dependent claim 20, we conclude that Petitioner has demonstrated by a preponderance of evidence that the combined teachings of *Watson* and *Konig* render claim 20 unpatentable as obvious.

E. Obviousness of Claim 13 over the Combination of Watson, Konig, and Paz

Claim 13 depends from independent claim 8, and further recites “determining the duration of the computer telephony interaction event classified as the first type.”⁸ Ex. 1001, 20:58–60. Petitioner contends that claim 13 is unpatentable under 35 U.S.C. § 103(a) as obvious over the combination of Watson, Konig, and Paz.⁹ Petitioner argues that Paz teaches

⁸ We note that certain claims contain claim limitation inconsistencies. For example, independent claim 8 recites “processing said telephonic communication into a plurality of *computer telephony interpretation event*,” “analyzing said plurality of *computer telephony interpretation event*,” and “classifying said plurality of *computer telephony interpretation event* into types a first type and a second, different type.” Ex. 1001, 20:30–36 (emphases added). Independent claim 15 recites similar limitations. *Id.* at 21:7–12. Claim 13, which depends from claim 8, recites “determining the duration of the *computer telephony interaction event* classified as the first type.” *Id.* at 20:58–60 (emphasis added). Although the singular term “event” is used a number of times in claims 8 and 15, because the claims recite a “plurality,” we understand the claim language to mean “a plurality of computer telephony interpretation events.” Indeed, other claims, such as claims 10–12, use the plural form “events.” *Id.* at 20:41–57. Also, independent claim 8 recites “a plurality of computer telephony interpretation event” and “classifying said plurality of computer telephony interpretation event into types a first type and a second, different type.” *Id.* at 20:30–36. Claim 13, which depends from claim 8, refers to “*the* computer telephony interaction event classified as *the* first type” (emphases added). *Id.* at 20:58–60. Thus, in context, the terms “computer telephony *interpretation* event” and “computer telephony *interaction* event” are used in a consistent manner in the claims. The parties also refer to the terms together in their arguments. *See* Pet. 12–17; PO Resp. 12–14. Based on the complete record before us, we read “the computer telephony interaction event” in claim 13 to take antecedent basis from the “computer telephony interpretation event” recited in parent claim 8.

⁹ Paz was not of record during prosecution of the ’523 patent. *See* Ex. 1001, code (56); Pet. 3.

monitoring CTI information to determine, for example, a “hold duration.” Pet. 88–89 (citing Ex. 1014 ¶ 56). According to Petitioner, modifying the system of Watson to determine the duration of a “hold” CTI event would have made Watson’s system “more versatile” because it “would have allowed for the gathering of additional knowledge regarding a contact center’s calls with its agents, which could then be acted upon to provide better customer service.” *Id.* at 89–90. Similarly, Petitioner contends that it would have been obvious to determine the duration of “an event based on [a] word, phrase, or sentence” or a “pattern” of events based on König, which teaches “storing a start time and an end time of an event.” *Id.* at 90–91; *see* Ex. 1003, Fig. 1. Petitioner argues that the skilled artisan would have understood that doing so merely would have involved calculating the length of time for a particular portion of audio between a start time and end time.¹⁰ Pet. 90–91; *see* Section II.D.8, *supra*.

Petitioner’s expert, Dr. Stern, offers reasons that the skilled artisan would possess knowledge and motivation to combine the pertinent teachings of Paz or König with Watson. *See* Ex. 1013 ¶¶ 193–199. Patent Owner does not address Paz as relied upon by Petitioner, and although Patent Owner disputes whether König may be combined with Watson to teach other claim limitations of the challenged claims (*see* PO Resp. 32–40; PO Sur-Reply 22–24), Patent Owner offers no evidence to rebut Dr. Stern’s testimony in regard to Paz’s or König’s teaching of identifying durations of

¹⁰ Petitioner makes a similar argument regarding the combination of Watson and König with respect to claim 20, which recites “determining the duration of the communications objects event classified as a type.” Pet. 86–87; *see* Section II.D.8, *supra*. Petitioner’s asserted ground challenging claim 20 does not involve Paz.

events in telephone calls. We credit Dr. Stern's testimony which explains the reasons that one of ordinary skill in the art would have sought to successfully modify Watson with Paz's or Konig's teachings. *See* Ex. 1013 ¶¶ 196–199. Based on the foregoing, and on the complete record before us, we are persuaded by Petitioner's cited evidence and explanation of the reasons for combining the teachings of Paz or Konig with Watson to arrive at the invention of claim 13.

Accordingly, for the same reasons provided above for independent claim 8, as well as the foregoing arguments and evidence submitted by Petitioner concerning dependent claim 13, we conclude that Petitioner has demonstrated by a preponderance of evidence that the combined teachings of Watson, Konig, and Paz render claim 13 unpatentable as obvious.

III. CONCLUSION¹¹

Claim(s)	35 U.S.C. §	Reference(s)/ Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
8, 9, 14– 16, 20	103(a)	Watson, Konig	8, 9, 14–16, 20	
13	103(a)	Watson, Konig, Paz	13	
Overall Outcome			8, 9, 13–16, 20	

IV. ORDER

Upon consideration of the record, it is:

ORDERED that claims 8, 9, 13–16, and 20 of U.S. Patent
No. 8,611,523 B2 are unpatentable; and

FURTHER ORDERED that, because this is a Final Written Decision,
parties to this proceeding seeking judicial review of the Decision must
comply with the notice and service requirements of 37 C.F.R. § 90.2.

¹¹ Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this Decision, we draw Patent Owner's attention to the April 2019 *Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding*. See 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. See 37 C.F.R. §§ 42.8(a)(3), (b)(2).

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