Trials@uspto.gov
571-272-7822

Paper 36
Date: October 17, 2024

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner,

v.

DIALECT, LLC,
Patent Owner.

IPR2024-00753
Patent 7,640,160 B2

Before NEIL T. POWELL, GEORGE R. HOSKINS, and
JON M. JURGOVAN, *Administrative Patent Judges*.

JURGOVAN, *Administrative Patent Judge*.

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

I. INTRODUCTION

Google LLC ("Petitioner") filed a Petition (Paper 2, "Pet.") requesting *inter partes* review pursuant to 35 U.S.C. §§ 311–319 of claim 12 of U.S. Patent No. 7,640,160 B2 (Ex. 1001, "the '160 patent"). Dialect, LLC ("Patent Owner") filed a Preliminary Response (Paper 9, "Prelim. Resp."). We instituted *inter partes* review. Paper 11 ("Institution Decision" or "Inst. Dec.").

Thereafter, Patent Owner filed a Response (Paper 16, "PO Resp."), Petitioner filed a Reply (Paper 23, "Pet. Reply"), and Patent Owner filed a Sur-reply (Paper 29, "PO Sur-reply"). An oral hearing was conducted, and the transcript is in the record, along with the demonstratives. Paper 33 ("Transcript" or "Tr."); Ex. 1018 (Petitioner's Demonstratives); Ex. 2016 (Patent Owner's Demonstratives).

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision is entered pursuant to 35 U.S.C. § 318(a). Having reviewed the complete trial record, we determine that Petitioner has shown, by a preponderance of the evidence, that challenged claim 12 is unpatentable.

II. BACKGROUND

A. Real Parties-in-Interest and Related Proceedings

Petitioner identifies itself (i.e., Google LLC) as the real party-in-interest. *See* Pet. 5 & n.1. Patent Owner identifies itself (i.e., Dialect, LLC) as the real party-in-interest. *See* Paper 5, 1.

Petitioner has filed several IPR proceedings to challenge patents owned by Patent Owner. *See* Pet. 5–6. They are: IPR2024-00746 (U.S. Patent No. 7,398,209 B2); IPR2024-00747 (U.S. Patent No.

Meta Platforms, Inc. - IPR2025-01332
Meta Platforms, Inc. v. Dialect, LLC
Ex. 1034 - Page 2

7,502,738 B2); IPR2024-00748 (U.S. Patent No. 8,015,006 B2); IPR2024-00749 (U.S. Patent No. 7,693,720 B2); IPR2024-00750 (U.S. Patent No. 9,031,845 B2); IPR2024-00751 (U.S. Patent No. 8,447,607 B2); IPR2024-00752 (U.S. Patent No. 8,849,652 B2); and IPR2024-00753 (U.S. Patent No. 7,640,160 B2).

Petitioner and Patent Owner ("the parties") also identify two district court litigations as related to the '160 patent. *See* Pet. 5; Paper 5, 1.

B. The '160 Patent

The '160 patent is titled "Systems and Methods for Responding to Natural Language Speech Utterance." Ex. 1001, code (54). The '160 patent's method allows "users to submit natural language questions [or] commands via [a] speech interface" and obtain information "from a wide range of disciplines." *Id.* at 1:12–15. The '160 patent seeks to properly respond to questions and/or commands based on "imperfect information" such as incomplete thoughts, sentences, or phrases, slang terminology, repeated words, word variations, synonyms, or others. *Id.* at 1:51–61.

Meta Platforms, Inc. - IPR2025-01332
Meta Platforms, Inc. v. Dialect, LLC
Ex. 1034 - Page 3

Figure 1 of the ’160 patent is reproduced below.

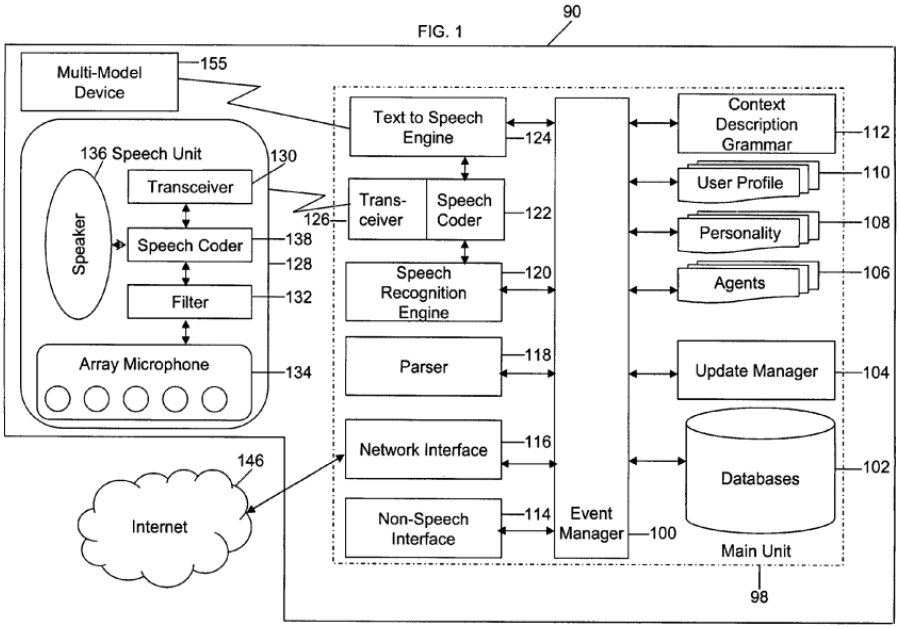


Figure 1 shows a system 90 that includes *inter alia* speech unit 128, speech recognition engine 120, context description grammar module 112, parser 118, and agents 106. Speech unit 128 includes a microphone to receive a spoken utterance from a user. *Id.* at 11:55–57. The speech unit 128 processes (i.e., encodes and compresses) the speech and transmits it to main unit 98 where it is further processed (i.e., decoded and decompressed). In main unit 98, speech recognition engine 120 processes the received speech using context description grammar module 112. *Id.* at 12:23–25. Speech recognition engine 120 passes recognized speech to parser 118 which transforms the information into complete algorithms or questions using data supplied by knowledge agents 106. *Id.* at 12:25–28. Knowledge agents 106 then process the commands or questions to carry out the intended actions or to provide responses to the requesting user by querying local databases 102 or external data sources over Internet 146. *Id.* at 12:32–36. Knowledge agents 106 may respond to the user’s request or

command with speech using the speech unit 128. *Id.* at 12:41–47. Alternatively, knowledge agents 106 may present results to non-speech questions or commands using multi-modal devices 155. *Id.* at 12:47–55.

Speech may be compared against entries in a context description grammar associated with each agent 106. *Id.* at 13:47–49. Matches may be scored and the agents ranked based on the determined score. *Id.* at 13:51–56. If no match or only a partial match is found, "then a knowledge-enhanced speech recognition system may be used to semantically broaden the search." *Id.* at 13:60–64. "The knowledge-enhanced speech recognition may access a set of expected contexts that are stored in a context stack to determine a most likely context." *Id.* at 13:66–14:2. "The knowledge-enhanced speech recognition may use context specific matchers that are able to identify context such as time, location, numbers, dates, categories (e.g., music, movies, television, addresses, etc.) and other context." *Id.* at 14:2–6.

C. Claim 12

Claim 12 is the only claim challenged in this proceeding. Pet. 7–8. Claim 12 is set forth below, with bracket identifiers to indicate particular limitations, and our emphasis showing disputed language in the claim.

> 12. [preamble] A method for interpreting natural language utterances using knowledge-enhanced speech recognition engine, wherein the knowledge-enhanced speech recognition engine is configured to determine an intent and correct false recognitions of the natural language utterances, comprising:
>
> [a] receiving a transcription of a natural language utterance at a computer comprising the knowledge-enhanced speech recognition engine;
>
> [b] identifying one or more contexts that completely or partially match one or more text combinations contained in

> the transcription, *wherein identifying the matching contexts includes comparing the text combinations against the grammar expression entries in the context description grammar and against one or more expected contexts stored in a context stack*;
>
> [c] scoring each of the identified matching contexts;
>
> [d] selecting the matching context having a highest score to determine a most likely context for the utterance; and
>
> [e] communicating a request to a domain agent configured to process requests in the most likely context for the utterance, the request formulated using at least one grammar expression entry in the context description grammar.

Ex. 1001, 30:60–31:14 (emphases added).

D. Asserted Prior Art

Petitioner relies on the following two references as prior art against claim 12 of the ’160 patent. *See* Pet. 7–8.

Name	**Reference**	**Date**	**Exhibit No.**
Kennewick	US 2004/0044516 A1	Filed June 3, 2003 Published March 4, 2004	1004
Ross	US 2002/0133354 A1	Filed Aug. 16, 2001 Published September 19, 2002	1005

Meta Platforms, Inc. - IPR2025-01332
Meta Platforms, Inc. v. Dialect, LLC
Ex. 1034 - Page 6

Petitioner contends that both Kennewick and Ross are prior art under at least pre-AIA[1] § 102(b). Pet. 13. The priority date for the '160 patent is its filing date, August 5, 2005. Kennewick and Ross were each published more than one year prior to the '160 patent's priority date such that they are § 102(b) prior art to the '160 patent. Patent Owner does not dispute that Kennewick and Ross are prior art. *See* PO Resp. *generally*.

E. Asserted Ground

Petitioner asserts the following ground of unpatentability. *See* Pet. 7–8.

35 U.S.C. §	References	Claim Challenged
103	Kennewick, Ross	12

F. Testimonial Evidence

Petitioner relies on expert witness testimony of Mr. Christopher Schmandt. Ex. 1002; Ex. 1016. Patent Owner relies on opposing expert witness testimony of Mr. Benedict Occhiogrosso. Ex. 2010. Depositions of the parties' experts are also in the record. Ex. 1017; Ex. 2011; Ex. 2014; Ex. 2015.

[1] Amendments to 35 U.S.C. §§ 102 and 103 enacted by the Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) ("AIA") took effect in March 2013. The priority date of the '160 patent is its filing date of August 5, 2005. *See* Ex. 1001, code (22). Therefore, we apply the pre-AIA version of §§ 102 and 103 in this proceeding.

III. PETITIONER'S GROUND OF UNPATENTABILITY

A. Legal Principles

"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) (requiring *inter partes* review petitions to identify "with particularity . . . the evidence that supports the grounds for the challenge to each claim")). This burden of persuasion never shifts to the patent owner. *See Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015). The burden of production, however, may shift between the petitioner and patent owner as arguments and evidence are presented during the proceeding. *Id.*

A patent claim is unpatentable under 35 U.S.C. § 103 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 ("POSITA") to which said subject matter pertains. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) objective evidence of nonobviousness.[2] *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

[2] Neither party relies on objective evidence of nonobviousness to support their contentions.

Meta Platforms, Inc. - IPR2025-01332
Meta Platforms, Inc. v. Dialect, LLC
Ex. 1034 - Page 8

B. Level of Ordinary Skill in the Art

Petitioner contends a POSITA pertaining to the '160 patent "would have possessed a bachelor's degree in electrical engineering or computer science, and two years of work experience in the field of speech and natural language-interfaces for interacting with and directing computer systems and software, including speech recognition and processing (and more experience could substitute for less formal education, and vice versa)." Pet. 10; Ex. 1002 ¶¶ 11–15.

Patent Owner does not respond to Petitioner's formulation of the level of ordinary skill in the art. *See* PO Resp. *generally*.

We determine that Petitioner's proposed skill level is consistent with the problems and solutions identified in the '160 patent and the prior art references asserted by Petitioner. In addition, we find the skill level consistent with the education and experience that a POSITA would have had. *See In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (citing *Custom Accessories, Inc. v. Jeffrey-Allan Indus., Inc.*, 807 F.2d 955, 962 (Fed. Cir. 1986)) (citing factors to consider when determining level of ordinary skill in the art). Accordingly, we adopt Petitioner's proposed skill level to apply in this proceeding.

C. Claim Construction

We interpret the '160 patent claims "using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. 282(b)." 37 C.F.R. § 42.100(b). This "includ[es] construing the claim in accordance with the ordinary and customary

meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent." *Id.*

Petitioner argues: "Express claim construction is unnecessary because the prior art renders the challenged claims obvious under any reasonable construction." Pet. 12.

Patent Owner indicates that the U.S. District Court for the Eastern District of Virginia issued constructions for the following terms in other patents assigned to Patent Owner:

Term	Patent(s)	Claim(s)	Construction
context	'720 Patent	1, 31	"the subject matter area to which a particular user input is directed and which is used to determine the meaning of the user input"
	'006 Patent	1, 2, 4, 5, 10	
	'468 Patent	19, 28	
	'039 Patent	17, 18	
context stack	'006 Patent	2	"a data structure that stores or references contexts in a manner that can be ordered"
	'468 Patent	19, 28	
	'039 Patent	17	
	'957 Patent	1, 3, 4, 7	
entries in a context stack	'468 Patent	19	"elements of a context stack that store or reference contexts"

context entries	’957 Patent	1, 3, 4, 5, 7	"elements of a context stack that store or reference contexts"
grammar	’720 Patent	1, 31	"a set of rules governing how inputs and requests to a domain agent should be structured"
	’006 Patent	1, 5, 10	
context description grammar	’039 Patent	13	"a data structure containing entries constituting or referencing sets of rules, wherein each of those sets describes the structure of natural language in a particular context"
domain agent	’720 Patent	1, 31	"executables associated with a specific domain that receive, process and respond to user questions, queries and commands"
	’006 Patent	1, 2, 5, 10	
	’468 Patent	19, 30, 32	"software with domain-specific behavior and information"
	’039 Patent	13, 14	
procedures sensitive to the determined context	’006 Patent	5	"procedures that differ based on which context has been determined"
parser	’720 Patent	1, 35	"software that analyzes a string of words"
	’006 Patent	1, 5, 10	

PO Resp. 11–12 (citing Ex. 2007). Claim 12 recites several of these terms including “context,” “context stack,” “context description grammar,” and “domain agent.” The parties do not dispute the meanings of any of these terms in this proceeding.

1. "Expected Contexts"

However, the parties do dispute what is meant by "expected contexts" in claim 12. Patent Owner argues that "expected contexts" are "a subset of the contexts in a context stack." PO Resp. 15 (citing Ex. 2010 ¶ 56). Patent Owner contends that a particular set of contexts in the context stack could be "expected contexts" based on their use of context specific matchers that identify contexts such as time, location, numbers, dates, and categories (e.g., music, movies, television, addresses, etc.). *Id.* (citing Ex. 1001, 14:2–6). According to Patent Owner, for example, if the system expects text combinations to refer to a "television," the "expected contexts" in the context stack could be those entries containing the "television" context specific matcher. *Id.* at 15–16 (citing Ex. 2010 ¶ 56).

Patent Owner further argues that "expected contexts" are distinct from "possible contexts" which relate to a different embodiment in the '160 patent where "the possible contexts are scored and the top one or few are used for further processing" as described in the '160 patent and Kennewick. *Id.* at 16–17 (citing Ex. 1001, 13:60, 21:4–9). Patent Owner contends that Petitioner treats "expected contexts" as the same as "possible contexts" when the '160 patent describes them as different concepts related to different embodiments. *Id.* at 16–17 (citing Ex. 2010 ¶¶ 49–60; Ex. 2011, 70:14–15).

Petitioner argues that "one or more expected contexts" are contexts "recognized as possibly matching the user's intent." Pet. Reply 2 (citing Pet. 38; Ex. 1002 ¶ 78; Ex. 1004 ¶¶ 144–145). According to Petitioner, "Kennewick's processing reflects an anticipation, or expectation, that they may match the user's intent." *Id.* (citing Ex. 1016 ¶ 4). Petitioner contends that "neither claim 12 nor the written description [of the '160 patent]

imposes any requirement as to the point in time when a context may be 'expected,' nor is there any requirement that the system expressly flag or otherwise identify a context as 'expected.'" *Id.* (citing Ex. 1016 ¶ 4). Moreover, Petitioner argues that "Kennewick does not say that all contexts are scored, only 'possible' contexts." *Id.*

After review of the evidence, we determine that the record does not support Patent Owner's construction of "expected contexts" as "a subset of the contexts in a context stack." PO Resp. 16–17. The sole mention of "expected contexts" in the '160 patent's description is the following: "The knowledge-enhanced speech recognition may access *a set of expected contexts* that are stored in a context stack to determine a most likely context." Ex. 1001, 13:66–14:2. This statement does not provide any definition for "expected contexts." Although the '160 patent's description mentions a "set," this is not the same as a "subset" as Patent Owner proposes in its construction. Similarly, claims 1, 12, 13, and 15 of the '160 patent recite "one or more expected contexts" but do not elaborate further on what an "expected context" is. Likewise, "expected contexts" were mentioned but not discussed or defined in the prosecution history of the '160 patent. Ex. 1012, 281, 305, 382. Consequently, we decline to restrict the construction of "one or more expected contexts" as Patent Owner proposes.

To the extent that Patent Owner so argues, we do not consider "expected contexts" to require the use of "context specific matchers." In this regard, the '160 patent states that "knowledge-enhanced speech recognition ***may*** use context specific matchers that are able to identify context such as time, location, numbers, dates, categories (e.g., music, movies, television, addresses, etc.) and other context." Ex. 1001, 14:2–6 (emphasis added).

Hence, the '160 patent states that "contexts" ***may*** be identified using "context specific matchers" but this is not required.

We further decline to interpret "one or more expected contexts" to exclude "possible contexts" as Patent Owner argues. Simply put, we find no support in the '160 patent or elsewhere that "expected contexts" cannot be "possible contexts" or that the two terms are mutually exclusive of one another. Although the '160 patent mentions scoring "possible contexts" (Ex. 1001, 21:7–9), we find no reason why these "possible contexts" cannot also be "expected contexts."

Although we agree with Petitioner that "expected contexts" are ones that are "anticipated," we do not agree that "expected contexts" must be related to the "user's intent." Pet. Reply 2. We find insufficient evidence in the '160 patent and its file history to support such a construction. Although claim 12's preamble mentions the word "intent" it does not necessarily tie this word to a user or expected contexts. We do agree with Petitioner, however, that the term does not impose any requirement as to the point in time when a context may be expected, that the context need not be flagged or identified as expected, and that it does not require all contexts to be scored. *Id.*

As the intrinsic evidence is sufficient to determine the meaning of "one or more expected contexts," we do not resort to extrinsic evidence such as the declarations and deposition testimony of the parties' experts to construe the term. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1317 (Fed. Cir. 2005) (explaining that extrinsic evidence is less significant than intrinsic evidence); *Seabed Geosolutions (US) Inc. v. Magseis FF LLC*, 8 F.4th 1285, 1287 (Fed. Cir. 2021) (Court of Appeals gives primacy to intrinsic evidence

and resorts to extrinsic evidence only if consistent with intrinsic evidence); *Sequoia Tech., LLC v. Dell, Inc.*, 66 F.4th 1317, 1324 (Fed. Cir. 2023) (Court of Appeals stating that its "decision rests solely on the intrinsic evidence").

Consequently, we construe the term "one or more expected contexts" in claim 12 of the '160 patent under its ordinary and customary meaning as "one or more probable or anticipated contexts" in accordance with the dictionary definition of "expected."[3] The "one or more expected contexts" is not required to be a "*subset* of contexts in a context stack," nor must it be determined with context specific matchers. There is no requirement as to the point in time when a context must be expected, it need not be explicitly identified or indicated as expected, and it does not require that all contexts are scored.

We need not construe the term further to resolve the parties' dispute over its meaning because "[t]he Board is required to construe 'only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.'" *Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

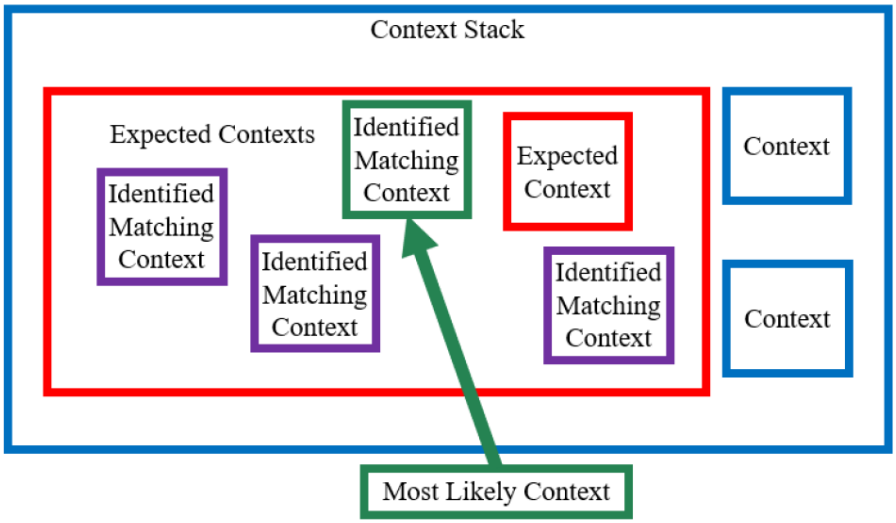
2. *Order of Steps*

Patent Owner contends that claim 12 imposes a certain order of performance of its recited steps. PO Resp. 17–21. Specifically, Patent

---

[3] Merriam-Webster Dictionary defines "expect" as "1 a: to consider probable or certain" and "2 : to anticipate or look forward to the coming or occurrence of." https://www.merriam-webster.com/dictionary/expected?src=search-dict-hed (last viewed October 14, 2025). Ex. 3002.

Owner argues that "identifying one or more contexts" and "scoring each of the identified matching contexts" are separate steps that must be performed sequentially. *Id.* at 18–21. Patent Owner provides the following diagram to explain its contentions:



As shown in the above diagram, Patent Owner argues that "the claim requires a context stack with contexts, with some of those contexts being expected contexts, and with some of those expected contexts being identified as matching contexts, which are scored to select one of those identified matching contexts as a most likely context." *Id.* at 20–21.

Petitioner asserts that claim 12 is not limited to the scenario that Patent Owner describes in its diagram. Pet. Reply 10–13. Specifically, Petitioner contends that because of its open-ended "comprising" language, claim 12 does not exclude scoring other contexts besides "identified matching contexts." *Id.* at 12 (citing *CIAS Inc. v. Alliance Gaming Corp.*, 504 F.3d 1356, 1360–61 (Fed. Cir. 2007); Ex. 1016 ¶ 21). Petitioner further argues that limitation 12b broadly recites that the "identifying . . . includes" a comparison against expected contexts but does not state that the

identifying is limited to only the recited comparisons. *Id.* Petitioner further argues that the "scoring" of limitation 12c could occur in parallel with or as part of the "identifying" step in limitation 12b. *Id.*

Reviewing the '160 patent and its file history, we find little if any evidence to support Patent Owner's restrictive constructions of claim 12, nor does Patent Owner point to any definition or other evidence in the '160 patent or its file history that would lend support. We agree with Petitioner that the "comprising" language of claim 12 does not preclude scoring contexts other than "identified matching contexts" nor their identification by other than the recited comparisons. *See, e.g.*, *CIAS*, 504 F.3d at 1360–61. We further agree with Petitioner that the claim does not require the "identifying" of limitation 12b to be completed before the "scoring" of limitation 12c, and they could be performed in parallel. *See, e.g.*, *Mformation Technologies, Inc. v. Research in Motion Ltd.*, 764 F.3d 1392, 1398–1399 (Fed. Cir. 2014). However, we do not agree with Petitioner that the two steps could be performed as part of one another because they are set out in the claim as distinct steps. *See, e.g.*, *Becton, Dickinson and Co. v. Tyco Healthcare Group, LP*, 616 F.3d 1249, 1254–1255 (Fed. Cir. 2010).

With these constructions in mind, we proceed to consider Petitioner's obviousness challenge.

D. Obviousness over Kennewick and Ross

In the sole ground at issue in this proceeding, Petitioner asserts that claim 12 of the '160 patent would have been obvious over Kennewick and Ross. *See* Pet. 7–8, 13–46. Patent Owner disputes Petitioner's proffered

Meta Platforms, Inc. - IPR2025-01332
Meta Platforms, Inc. v. Dialect, LLC
Ex. 1034 - Page 17

motivations to combine with reasonable expectation of success, and argues that the combination of Kennewick and Ross fails to disclose the step recited in limitation 12b and the ordering of steps recited in limitations 12b and 12c. Patent Owner does not dispute Petitioner's contentions for the remaining limitations of claim 12. *See* PO Resp. 21–38. We address the parties' dispute regarding limitation 12b and the ordering of steps in limitations 12b and 12c under the corresponding subsections below.

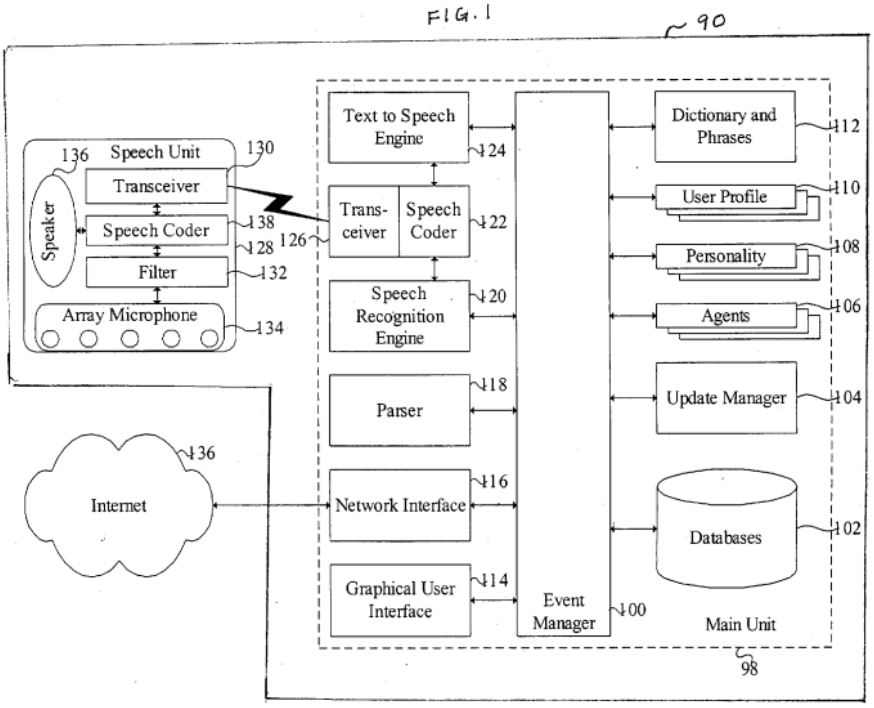
For reasons explained below, we determine that Petitioner has demonstrated by a preponderance of the evidence that claim 12 is unpatentable as obvious over the combination of Kennewick and Ross.

1. Kennewick (Ex. 1004)

Like the '160 patent, Kennewick is titled "Systems and Methods for Responding to Natural Language Speech Utterance." Ex. 1004, code (54). Although Kennewick and the '160 patent are not related by priority, the two have similar disclosures, as shown in a comparison that Petitioner has provided in the record. *See* Ex. 1007. The inventor, Robert A. Kennewick, is named in both the Kennewick reference and the '160 patent. Ex. 1001, code (75); Ex. 1004, code (76).

Kennewick's Figure 1 is shown below.

Meta Platforms, Inc. - IPR2025-01332
Meta Platforms, Inc. v. Dialect, LLC
Ex. 1034 - Page 18



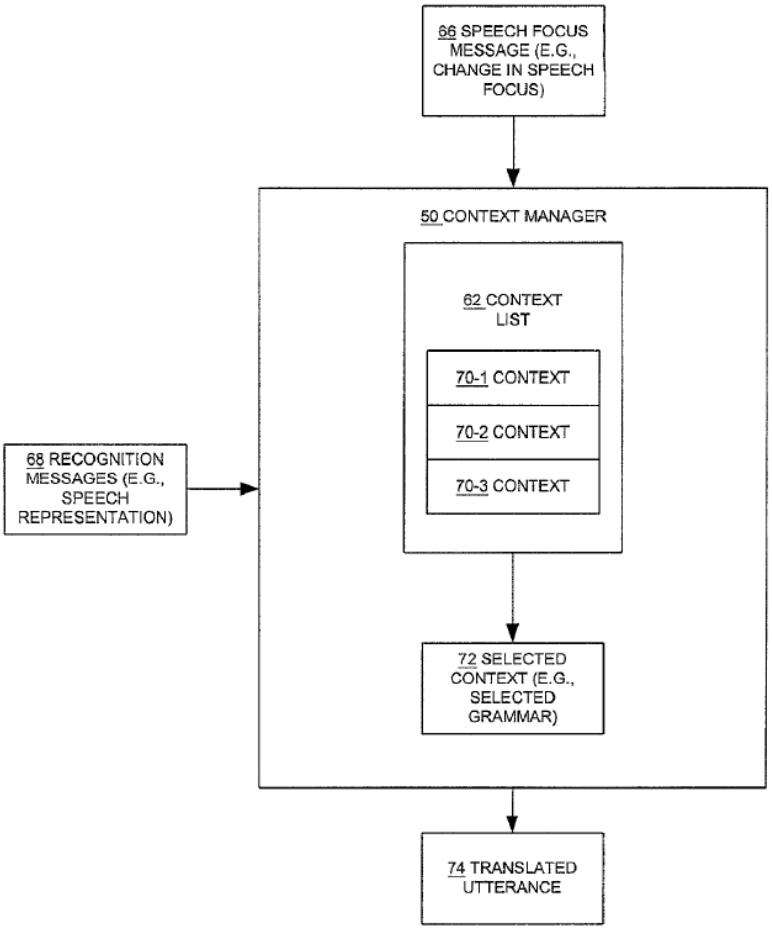
Kennewick discloses system 90 with speech unit 128 and main unit 98 similar to what already has been described for the ’160 patent. *See* § II.B. Among the notable differences are that the main unit 98 has dictionary and phrase tables 112 instead of the context description grammar module 112 of the ’160 patent. Ex. 1004 ¶ 149. Dictionary and phrase tables 112 are used by the speech recognition engine 120 to recognize spoken words and phrases. *Id.* ¶ 88. Also, Kennewick lacks disclosure that the ’160 patent has concerning multi-modal interactions, non-speech-based queries, and a context manager. *See, e.g.*, Ex. 1007, 1–4.

2. Ross (Ex. 1005)

Ross is titled “System and Method for Determining Utterance Context in a Multi-Context Speech Application.” Ex. 1005, code (54). Ross discloses “a method and apparatus . . . for determining a speech-enabled application to receive a spoken utterance in a multi-context speech enabled

environment." *Id.* ¶ 10. Specifically, Ross's apparatus has a message handler that receives and provides a representation of a spoken utterance to a context manager. *Id.* The context manager uses the utterance representation to evaluate contexts of speech-enabled applications to determine one to which to direct the utterance representation. *Id.* The context manager evaluates contexts for speech-enabled applications based on an access characteristic. *Id.* "The context manager may prioritize the contexts based on the access characteristic," which "may be based on [the] recency of relevant access to the context." *Id.* ¶ 12.

Ross's Figure 4 is shown below.



Ross's Figure 4 shows components of context manager 50. *Id.* ¶ 33. Context manager 50 includes context list 62 with "contexts 70 (e.g., 70-1, 70-2, 70-3, etc.) for speech enabled applications 26, which represent the grammars for the applications 26." *Id.*

In implementing a speech center for language translation, Ross discloses that

> when an utterance is recognized, it will be tested against each application's grammar to see if the grammar will accept it. The order of testing is based on a dynamic speech focus priority. The first application's grammar which will accept the utterance is then used for translation, and the command dispatched to the corresponding application 26. The speech focus priority is established by maintaining an ordered list of applications (e.g., context list 62). Whenever an application 26 gains window focus, it will move to the head of the list 62. Likewise, whenever an application 26 which is not the top priority application 26 is chosen as the target for a speech command, the application 26 indicated by the selected context 72 will move to the head of the list 62. In this way, the last application 26 that the user touched or talked to will get the first opportunity at interpreting the next user utterance, and the other applications 26 will be ordered in a most-recently-accessed way.

Id. ¶ 35.

3. Motivation to Combine with Reasonable Expectation of Success

Petitioner contends that a POSITA would have been motivated to combine Kennewick and Ross with a reasonable expectation of success. Pet. 36–42; *see also, e.g.*, *Elekta Ltd. v. ZAP Surgical Sys., Inc.*, 81 F.4th 1368, 1375 (Fed. Cir. 2023) (obviousness requires motivation to combine prior art references with a reasonable expectation of success). Specifically, Petitioner contends that Kennewick's use of grammars would involve comparing text combinations against grammar expression entries in a

context description grammar as claimed, and that a POSITA would have turned to Ross's "remarkably similar technique" "for its more detailed teachings." *Id.* at 37 (citing Ex. 1002 ¶ 76).

Petitioner further argues that Kennewick's context stack stores keywords associated with previously identified contexts and explains that keywords and criteria can be inherited from the stack when evaluating a "following-on question." *Id.* at 41 (citing Ex. 1005 ¶¶ 144–145; Ex. 1002 ¶ 82). According to Petitioner, Ross's similar system compares text against expected contexts such as the context for the last application the user touched or talked to. *Id.* at 41–42 (citing Ex. 1005 ¶ 35; Ex. 1002 ¶ 82). Hence, Petitioner asserts that the "combination would have involved the application of known techniques to improve a similar system in the same way." *Id.* at 41.

Petitioner contends that a POSITA would have had a reasonable expectation of success because combining Kennewick and Ross "would have involved the straightforward application of conventional techniques and technologies without undue experimentation" using, for example, Backus Naur Form (BNF) grammar. *Id.* at 37 (citing Ex. 1002 ¶ 77; Ex. 1005 ¶ 60; Ex. 1009, 8).

In its Response, Patent Owner does not dispute Petitioner's proffered motivations to combine with reasonable expectation of success. However, in its Sur-reply, Patent Owner argues that Petitioner's combination "makes no sense" because Ross's contexts are arranged in order by recency of access such that no scoring is required to find a selected context, whereas Kennewick scores every context in the context stack to select a context. PO Sur-reply 9–10. Patent Owner further argues that Ross's context

grammars are fixed whereas Kennewick's are dynamic according to prior utterances, and that Ross's search ends upon finding a match whereas Kennewick scores the entire context stack. *Id.* at 10.

Patent Owner's late arguments, to which Petitioner has not had an opportunity to respond, do not undermine Petitioner's proposed motivations to combine with reasonable expectation of success. *See* 37 C.F.R. § 42.23(b). Patent Owner's arguments hinge on its assertion that "expected contexts" are not scored and are dynamic, but the '160 patent does not define "expected contexts" in this way. *See* § III.C, *supra*. Furthermore, we do not agree that Ross's search necessarily ends upon finding a match or that Kennewick and Ross are otherwise incompatible. *See* Inst. Dec. 19–22.

Thus, we find that Petitioner has demonstrated by a preponderance of the evidence that a POSITA would have been motivated to combine Kennewick and Ross with a reasonable expectation of success to arrive at the claimed invention.

4. Comparison of Claim 12's Limitations with Combination Disclosures

We now consider Petitioner's contentions with regard to each limitation of claim 12. Pet. 13–46. Patent Owner disputes Petitioner's contentions for limitation 12b which we address below in the subsection discussing this limitation. We determine that Petitioner has provided preponderant evidence that each limitation of claim 12 is disclosed by the combination of Kennewick and Ross for the reasons that follow.

(i) Preamble

The preamble of claim 12 recites "A method for interpreting natural language utterances using knowledge-enhanced speech recognition engine, wherein the knowledge-enhanced speech recognition engine is configured to

determine an intent and correct false recognitions of the natural language utterances, comprising:" Ex. 1001, 30:60–64.

Petitioner contends that Kennewick discloses the preamble of claim 12. Pet. 13. Specifically, Petitioner asserts that "Kennewick discloses a '**knowledge-enhanced speech recognition engine'** in the form of a parser that interprets a transcribed natural language utterance by (1) determining the intent of a request in a transcribed natural language utterance to select an application to invoke to process a command or question in the utterance, and (2) identifying potentially false recognitions and prompting the user to correct them." Pet. 13 (citing Ex. 1004 ¶¶ 31, 92, 152–153; Ex. 1002 ¶ 51). Hence, Kennewick's "**knowledge-enhanced speech recognition engine**" performs a "**method for interpreting natural language utterances**" and "**is configured to determine an intent and correct false recognitions of the natural language utterances**."

Patent Owner does not dispute Petitioner's contentions for the preamble of claim 12.

We find that Petitioner has shown preponderant evidence that Kennewick discloses claim 12's preamble. Accordingly, we need not decide whether the preamble is limiting.

(ii) Limitation 12a: Receiving a Transcription at a Computer

Limitation 12a recites "receiving a transcription of a natural language utterance at a computer comprising the knowledge-enhanced speech recognition engine." Ex. 1001, 30:65–67.

Petitioner contends that Kennewick discloses limitation 12a. Pet. 14–22. Specifically, Petitioner contends that Kennewick discloses

receiving "a natural language utterance" from a user. *Id.* at 14 (citing Ex. 1004 ¶ 10). Petitioner further asserts that "Kennewick discloses the natural language utterance input from the user is passed to a speech recognition engine that generates a '**transcription**' of the utterance by recognizing words and phrases." *Id.* (citing Ex. 1004 ¶¶ 142, 147, 186–187; Ex. 1002 ¶ 52). Petitioner contends that Kennewick discloses that this transcription is passed to a parser (i.e., the claimed "**knowledge-enhanced speech recognition engine**") for interpretation. *Id.* (citing Ex. 1004 ¶ 152). Because the parser runs on a computer, Petitioner contends, the "**receiving of [the] transcription of a natural language utterance**" is "**at a computer comprising the knowledge-enhanced speech recognition engine**." *Id.* at 15 (citing Ex. 1002 ¶ 52).

Patent Owner does not dispute Petitioner's contentions for limitation 12a.

We find that Petitioner has shown preponderant evidence that Kennewick discloses limitation 12a.

(iii) Limitation 12b: Identifying One or More Matching Contexts

Limitation 12b recites "identifying one or more contexts that completely or partially match one or more text combinations contained in the transcription, *wherein identifying the matching contexts includes comparing the text combinations against the grammar expression entries in the context description grammar and against one or more expected contexts stored in a context stack*." Ex. 1001, 31:1–7 (emphasis added).

As earlier noted, Petitioner and Patent Owner dispute whether the combination of Kennewick and Ross discloses the claim language shown in

italics. Pet. 23–42 (citing Ex. 1002 ¶¶ 60–82); PO Resp. 1–4, 21–38. The parties' disputes relate to Petitioner's three theories for ways that Kennewick and Ross teach the claimed "expected contexts" as well as the order of performance of the steps recited in limitations 12b and 12c. We first address Petitioner's undisputed contentions for this limitation, then address the parties' contentions regarding Petitioner's "expected context" theories and step ordering below.

(a) Petitioner's Undisputed Contentions

Petitioner contends that Kennewick discloses "**identifying one or more contexts that**…**match**…**text…in the transcription**," describing matching tokens (e.g., words) in a recognized utterance to contexts—such as the text "temperature" to the context "weather." Pet. 23–24 (citing Ex. 1004 ¶ 152; Ex. 1002 ¶ 61). Petitioner contends that Kennewick's contexts may "**completely or partially**" match the text combinations. *Id.* at 24 (citing Ex. 1004 ¶ 152). Petitioner further asserts that Kennewick discloses "**text combinations**" because some of the examples it provides are multi-word keywords in utterances like "get the value" and "my stock portfolio" in the phrase "please get the value of my stock portfolio." *Id.* at 25–26 (citing Ex. 1004 ¶¶ 98, 186–187; Ex. 1002 ¶ 62). Petitioner contends that Kennewick discloses "**text combinations**" because "Kennewick makes clear that the evaluation of a context can involve matching not only keyword(s) in the transcription, but criteria or parameters in the transcription as well." *Id.* at 26 (citing Ex. 1004 ¶¶ 31, 93; Ex. 1002 ¶ 63).

Petitioner contends that Kennewick discloses "**comparing the text combinations against grammar expression entries in a context**

description grammar." Pet. 27. Petitioner asserts that "Kennewick discloses that an agent 'passes a regular grammar expression to the parser 118 for evaluation of a context or question.'" *Id.* (citing Ex. 1004 ¶ 108; Ex. 1002 ¶ 66). Petitioner states that "Kennewick further describes how, in one example, a grammar is used 'to clearly specify the keyword used to determine the context and a set of one or [sic] criteria or parameters.'" *Id.* (citing Ex. 1004 ¶ 144). According to Petitioner, "Kennewick also discloses that the grammar would include multiple grammar expressions." *Id.* at 28 (citing Ex. 1002 ¶ 67). Petitioner further asserts that "Kennewick explains how a 'content package' for an agent 'include[s] questions or commands' and that each question or command has an associated regular grammar expression." *Id.* (citing Ex. 1004 ¶ 108).

Therefore, Petitioner contends, "a collection of grammar expressions used to identify a context in Kennewick discloses '**grammar expression entries in a context description grammar**' as claimed." *Id.* (citing Ex. 1002 ¶ 68). Petitioner alleges that "[t]he collection discloses '**a context description grammar**' because it comprises a grammar that describes context(s)" consistent with how the '160 patent uses the term. *Id.* at 28–30 (citing Ex. 1001, 13:47–50, 16:46–54; Ex. 1004 ¶¶ 108, 144, 152; Ex. 1002 ¶ 68).

Petitioner also relies on Ross's "context manager 50 that includes a context list 62" with "contexts 70 (e.g., 70-1, 70-2, 70-3, etc.) for speech enabled applications 26, which represent grammars for the applications 26." *Id.* at 32 (citing Ex. 1005 ¶ 33, Fig. 4). Petitioner states that a "user's transcribed utterance (a 'recognition message') is tested against the grammars in the context list in order to determine an application to invoke."

Id. at 32–33 (citing Ex. 1005 ¶ 34). Petitioner asserts that "Ross further makes clear that 'test[ing]…against the active grammars' and finding a successful 'match' involves matching text combinations in a user's transcribed utterance to grammar expressions in a grammar." Pet. 33 (citing Ex. 1002 ¶ 72). Petitioner asserts that Ross provides two example grammars, one for an email application, and the other for a calendar application. *Id.* at 33–35 (citing Ex. 1005 ¶¶ 35, 40–53; Ex. 1002 ¶¶ 72–73).

(b) Petitioner's Disputed Contentions

For the part of limitation 12b which recites that "**identifying the one or more matching contexts**" also "**includes comparing the text combinations**…**against one or more expected contexts stored in a context stack**," Petitioner argues that a POSITA would have "found it obvious that Kennewick's parser would access one or more expected contexts that are stored in a context stack to determine a most likely context." Pet. 38. Petitioner asserts that "Kennewick discloses the '**one or more expected contexts**' in a few different ways." *Id.*

In its first theory, Petitioner contends that Kennewick discloses that, "as part of determining the most likely context, multiple 'possible contexts are scored and the top one or few are used for further processing.'" *Id.* (citing Ex. 1004 ¶ 152). Petitioner contends that because these "possible contexts" are recognized as possibly matching the user's intent, Kennewick discloses the "**one or more expected contexts**." *Id.*

In its second theory, Petitioner contends that "Kennewick further discloses that possible contexts matching a transcription are stored in a context stack, describing an example of how 'the contents of the context

stack,' such as keywords and criteria corresponding to past contexts, may be used in determining the context of a user's next request (e.g., 'a following-on question')." *Id.* at 38–39 (citing Ex. 1004 ¶¶ 144–145, 166). Specifically, Petitioner asserts that "the context keyword(s) stored in the context stack and associated with an earlier question is an example of an '**expected context**.'" *Id.* at 39 (citing Ex. 1002 ¶ 78).

Petitioner's third theory also relies on Ross as disclosing "**comparing the text combinations…against one or more expected contexts stored in a context stack**." Pet. 39–40. Petitioner contends that "Ross describes a context manager 50 that includes a context list 62" with contexts 70 that "are sorted in priority order, such that the most-recently-accessed context will be the first context evaluated when processing the next user utterance" and thus discloses "**one or more expected contexts**." *Id.* at 39–40 (citing Ex. 1005 ¶¶ 33, 35, 37; Ex. 1009, 17, 22; Ex. 1002 ¶ 80).

Patent Owner argues that the combination of Kennewick and Ross fails to disclose claim 12's limitation 12b. PO Resp. 21–38. Specifically, Patent Owner argues that neither Kennewick nor Ross discloses "expected contexts" or comparing text combinations against "expected contexts" to identify matching contexts in limitation 12b. *Id.* at 23–24.

Petitioner's First Theory of "Expected Contexts"

Patent Owner argues that Petitioner's first theory of the claimed "expected contexts" as corresponding to Kennewick's "possible contexts" is incorrect because the '160 patent distinguishes these two types of contexts such that Kennewick's "possible contexts" cannot be the claimed "expected contexts." PO Resp. 25–27. Patent Owner states that the "expected

contexts" embodiment is an addition to the '160 patent that is not present in Kennewick. *Id.*

Petitioner argues that Kennewick's "possible contexts" correspond to the claimed "expected contexts" "because they are recognized as possibly matching the user's intent." Pet. Reply 13–14 (citing Pet. 38; Ex. 1002 ¶ 78; Ex. 1004 ¶¶ 144–145; Ex. 1016 ¶¶ 4–5, 26).

We agree with Patent Owner that "expected contexts" and "possible contexts" are different terms and thus have different meanings. *See, e.g.*, *Neville v. Foundation Constructors, Inc.*, 972 F.3d 1350, 1357 (Fed. Cir. 2020); *CAE Screenplates Inc. v. Heinrich Fiedler GmbH & Co. KG*, 224 F.3d 1308, 1317 (Fed. Cir. 2000). Therefore, we do not agree with Petitioner that "possible contexts" are necessarily "expected contexts" (although they could be).

Consequently, Petitioner's first theory for "one or more expected contexts" fails.

Petitioner's Second Theory of "Expected Contexts"

Petitioner's second theory equates "one or more expected contexts" with "previous contexts" that are stored in Kennewick's context stack and subsequently searched using keywords, criteria, or parameters in determining the context of the user's next request (e.g., a "following-on question"). Pet. 38–39 (citing Ex. 1004 ¶¶ 144–145, 166; Ex. 1002 ¶ 78). We agree with Petitioner that such "previous contexts" in Kennewick are equivalent to the claimed "one or more expected contexts" because their storage for use with future requests reflects that they are "probable or

anticipated" contexts under the plain meaning of "expected." *See* § III.C.1, *supra*.

Patent Owner argues that Petitioner does not provide reasoning to link "previous contexts" to "expected contexts." PO Resp. 29–30 (citing Ex. 2010 ¶¶ 93–95); PO Sur-Reply 7 (citing Pet. Reply 3–4; Ex. 1004 ¶ 153; Ex. 2010 ¶¶ 88–90). We do not agree. Petitioner's reasoning is sufficient because, in essence, "previous contexts" stored in a context stack that are associated with "following-on questions" or dialog history are "expected" (i.e., probable or anticipated) even if Kennewick does not explicitly identify them as such.

Patent Owner further argues that Petitioner improperly views all contexts in the stack as both "possible" and "expected" when limitation 12b requires that the "expected contexts" must be a subset of contexts stored in the stack. PO Resp. 30–31 (citing Pet. 39; Ex. 1002 ¶ 78); PO Sur-reply 8. We find no prohibition in limitation 12b that would preclude "previous contexts" in the stack from being considered both "possible" and "expected" and we have already considered and rejected Patent Owner's assertion that "expected contexts" must be a subset of those stored in the context stack. *See* § III.C.1, *supra*.

We further do not agree with Patent Owner that the claim language somehow restricts comparison of text combinations to only grammar expression entries and expected contexts because, as Petitioner notes, the claim is drafted with open-ended "comprising" language and recites no such restrictions. Pet. Reply 12 (citing *CIAS,* 504 F.3d at 1360–61). *See In re Self*, 671 F.2d 1344, 1348 (CCPA 1982) (stating that limitations not appearing in the claims cannot be relied upon for patentability).

Accordingly, we find that Petitioner has shown preponderant evidence that Kennewick's "previous contexts" teach the claimed "**one or more expected contexts**" under Petitioner's second theory.

Petitioner's Third Theory of "Expected Contexts"

Petitioner contends that Ross discloses a context manager that includes a context list with contexts sorted in priority order, such that the most-recently-accessed context will be the first context evaluated when processing the next user utterance. Pet. 39–40 (citing Ex. 1005 ¶¶ 33, 35, 37). Petitioner contends that Ross thus discloses the claimed "one or more expected contexts" of limitation 12b under this third theory. *Id.*

Patent Owner argues that Ross has no concept of "expected contexts" because it selects the highest ordered context in the context list for further processing without consideration of which contexts are "expected." PO Resp. 31–38 (citing Ex. 1005 ¶¶ 40–59; Ex. 2010 ¶¶ 102–103, 105–106). We do not agree with Patent Owner's argument. As Petitioner correctly contends, Ross discloses "expected contexts" because Ross matches and reorders contexts in its stack by recency of access of the corresponding applications invoked by user utterances, reflecting expectations that these contexts are likely to be matched in the future. Pet. 41–42; Pet. Reply 17–19.

Although Patent Owner argues that the "expected contexts" must be a subset of contexts in the stack, as already explained, we do not agree with Patent Owner's construction, and claim 12 recites no such limitation. PO Resp. 36–37 (citing Ex. 2011, 70:14–15; Ex. 2010 ¶ 109); PO Sur-reply 8. Even if Patent Owner's restrictive view of "expected contexts" was correct,

Petitioner further notes that Ross's context manager moves the most recently accessed context matching a user's utterance to the top of the context stack, and correctly asserts that this is an example of an "expected context." Pet. Reply 19 (citing Ex. 1016 ¶ 37).

Patent Owner argues that Ross does not compare an utterance against one or more expected contexts (i.e., prior utterances) stored in a context stack, but instead checks which application can process a transcribed utterance. PO Resp. 31–32 (citing Ex. 1005 ¶¶ 33, 35, 37; Ex. 2010 ¶¶ 96–110). Although Patent Owner is correct that Ross checks which application can process a speech representation (i.e., text combination), Patent Owner overlooks that Ross's context manager does so by checking the speech representation against contexts stored in the context list. Ex. 1005 ¶ 37. Hence, we disagree with Patent Owner's argument.

Patent Owner contends that Ross does not disclose how to proceed if Ross's search of its context list yields no grammar and no priority context that can process the phrase. PO Resp. 35 (citing Ex. 1005 ¶ 53, Fig. 5; Ex. 2010 ¶ 103). We discern no relationship of this hypothetical to the claim language and it is thus unavailing.

Accordingly, we find Petitioner has provided preponderant evidence to support its third theory concerning how Ross discloses "one or more expected contexts." Patent Owner's arguments do not undermine Petitioner's showing that Ross teaches the claimed "**one or more expected contexts**" and their comparison against text combinations corresponding to the user's utterance.

Meta Platforms, Inc. - IPR2025-01332
Meta Platforms, Inc. v. Dialect, LLC
Ex. 1034 - Page 33

Dispute Over Order of Steps

Patent Owner contends that Petitioner ignores the claimed order of steps in claim 12 in asserting that scoring "possible contexts" to determine the top one or few means that those must have been "expected contexts" whereas, in contrast, claim 12 requires comparing text combinations against expected contexts to identify matching contexts which are then scored. PO Resp. 25–31 (citing Ex. 1001, 13:64–14:2; Ex. 1004 ¶¶ 152–153; Ex. 2010 ¶¶ 83–84, 88–90). Patent Owner argues that Petitioner's theories for how "one or more expected contexts" is disclosed in the combination of Kennewick and Ross either conflate the "identifying" of limitation 12b and the "scoring" of limitation 12c, or they are missing a step. PO Sur-reply 4–6.

We do not agree with Patent Owner's arguments. Kennewick's "previous contexts" are searched by comparison with keywords, criteria or parameters in the text combinations corresponding to a user's utterance, which in essence determines "matching contexts" which are then scored. Pet. 38–39; Ex. 1004 ¶¶ 144–145, 152–153, 166. Similarly, Ross compares recognized speech against contexts for previously invoked applications in the stack to determine partial or complete matches, which may then be scored per Kennewick. Pet. 39–40; Ex. 1005 ¶¶ 35, 37, 39, Fig. 4; Ex. 1002 ¶ 80. Thus, we do not agree with Patent Owner that Petitioner's theories conflate identifying matching contexts and scoring, or are missing a claimed step.

Accordingly, Petitioner has shown that the combination of Kennewick and Ross satisfies the ordering of steps in limitations 12b and 12c.

(c) Conclusion for Limitation 12b

We find that Petitioner has shown preponderant evidence that the combination of Kennewick and Ross discloses limitation 12b notwithstanding Patent Owner's arguments.

(iv) Limitation 12c: Scoring Identified Matching Contexts

Limitation 12c recites "scoring each of the identified matching contexts." Ex. 1001, 31:8.

Petitioner contends that Kennewick discloses limitation 12c. Pet. 42–43. Specifically, Petitioner contends that Kennewick discloses "identifying possible contexts that match a user's utterance 'by applying prior probabilities or fuzzy possibilities to keyword matching, user profile 110, and dialog history.'" *Id.* at 42 (citing Ex. 1004 ¶ 152). Petitioner further notes that Kennewick states "[b]ased on these probabilities or possibilities the possible contexts are scored and the top one or few are used for further processing." *Id.* (citing Ex. 1004 ¶¶ 30, 152, 153). Hence, Petitioner asserts that Kennewick discloses the claimed "**scoring each of the identified matching contexts**."

Other than the dispute addressed above regarding the order of performance of limitations 12b and 12c, Patent Owner does not dispute Petitioner's contentions for limitation 12c.

We find that Petitioner shows preponderant evidence that Kennewick discloses limitation 12c.

(v) Limitation 12d: Selecting Matching Context

Limitation 12d recites "selecting the matching context having a highest score to determine a most likely context for the utterance." Ex. 1001, 31:9–10.

Petitioner contends that Kennewick discloses limitation 12d. Pet. 43–44. Specifically, Petitioner asserts that "Kennewick discloses that 'the possible contexts are scored and the top one or few are used for further processing.'" *Id.* at 43 (citing Ex. 1004 ¶ 152). Petitioner further states that Kennewick "describes how '[t]he parser 118 uses a scoring system to determine the most[] likely context or domain for a user's question and/or command' and that '[b]ased on this scoring, the system 90 invokes the correct agent.'" *Id.* at 43–44 (citing Ex. 1004 ¶ 153). Petitioner contends that a POSITA "would have therefore understood and found it obvious that the matching context '**having a highest score**' would determine the '**most likely context.**'" *Id.* at 44. Petitioner asserts this is so, "first, because Kennewick discloses selecting only the context with the 'top' score, and second, because it would be quite sensible to select the context having a highest score as a mostly likely context even where 'the top…few are used for further processing.'" *Id.* (citing Ex. 1002 ¶ 85). Hence, Petitioner asserts that Kennewick discloses "**selecting the matching context having a highest score to determine a most likely context for the utterance**."

Patent Owner does not dispute Petitioner's contention that Kennewick discloses limitation 12d.

We find that Petitioner demonstrates preponderant evidence that Kennewick discloses limitation 12d.

(vi) Limitation 12e: Communication Request to Domain Agent

Limitation 12e recites "communicating a request to a domain agent configured to process requests in the most likely context for the utterance, the request formulated using at least one grammar expression entry in the context description grammar." Ex. 1001, 31:11–14.

Petitioner contends that Kennewick discloses limitation 12e. Pet. 45–46. Specifically, Petitioner contends that Kennewick discloses the part of limitation 12e reciting "**communicating a request to a domain agent configured to process requests in the most likely context for the utterance**." Pet. 45. Petitioner asserts that "Kennewick explains, for example, that '[b]oth system agents 150 and domain agents 156 receive questions and commands from the parser 118' and that '[a]fter selecting the agents 106, a properly formatted query and/or command that will be submitted to the agents 106 may be determined at 608.'" *Id.* (citing Ex. 1004 ¶¶ 91, 92, 185, 189; Ex. 1002 ¶ 87).

Petitioner further contends that Kennewick "discloses and renders obvious that the request communicated to a domain agent would be '**formulated using at least one grammar expression entry in the context description grammar**.'" Pet. 45. Petitioner asserts that "Kennewick discloses and renders obvious a context description grammar that includes one or more grammar expression entries." *Id.* at 46. Petitioner argues that "Kennewick refers to a 'regular grammar' that serves the same purpose of the 'context description grammar' in the '160 patent." *Id.* (citing Ex. 1004 ¶ 108; Ex. 1001, 16:46–54). Petitioner alleges that "Kennewick refers back to the 'regular grammar,' similarly disclosing 'formulat[ing] a question or command in the regular grammar used by agents.'" *Id.* (citing Ex. 1004

¶¶ 154, 189). Petitioner argues that "Kennewick, alone or in view of Ross, therefore discloses formulating a request to a domain agent '**using at least one grammar expression entry in the context description grammar**.'" *Id.* (citing Ex. 1002 ¶ 88). Petitioner contends that "because grammar expression entries are used when matching a transcription to determine a context and application to invoke, as taught by both Kennewick and Ross, a person of ordinary skill in the art would have understood that the resulting request communicated to the domain agent would have been formulated 'using at least one grammar expression entry in the context description grammar.'" *Id.* (citing Ex. 1002 ¶ 88).

Patent Owner does not dispute Petitioner's contentions concerning limitation 12e.

We determine that Petitioner demonstrates preponderant evidence that Kennewick and Ross disclose limitation 12e.

IV. CONCLUSION

We determine that Petitioner has shown by a preponderance of the evidence that a POSITA would have had reason to combine Kennewick and Ross with a reasonable expectation of success, and that each limitation of claim 12 is taught by the combination notwithstanding Patent Owner's arguments. Accordingly, we determine that Petitioner has demonstrated that claim 12 of the '160 patent is unpatentable as obvious over the combination of Kennewick and Ross.

V. ORDER

For the foregoing reasons, it is

ORDERED that pursuant to 35 U.S.C. § 318(a), claim 12 of the '160 patent has been shown to be unpatentable; and

FURTHER ORDERED that any party seeking judicial review must comply with the notice and service requirements of 37 C.F.R. § 90.2.[4]

In summary:

Claim(s)	35 U.S.C. §	Reference(s)/Basis	Claim(s) Shown Unpatentable	Claim(s) Not shown Unpatentable
12	103	Kennewick, Ross	12	

[4] 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).

FOR PETITIONER:

Heidi L. Keefe
Andrew C. Mace
COOLEY LLP
hkeefe@cooley.com
amace@cooley.com

FOR PATENT OWNER:

Wayne M. Helge
James T. Wilson
BUNSOW DE MORY, LLP
whelge@bdiplaw.com
jwilson@bdiplaw.com