

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

REPLY DECLARATION OF CHRISTOPHER SCHMANDT

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I, Christopher Schmandt, declare as follows:

1. I have been asked to review and respond to certain points raised in a “Declaration of Benedict Occhiogrosso in Support of Patent Owner’s Response” dated February 14, 2025, filed in IPR2024-00753 (EX2010, “Occhiogrosso Declaration”). This Declaration will focus on portions of the Occhiogrosso Declaration that affirmatively present new facts or new rationale to which a response is warranted. To the extent other portions of the Occhiogrosso Declaration state general disagreements with conclusions that I reached (on which the Petition relied), without actually providing contrary evidence or analysis, I adhere to the analysis in my opening declaration (EX1002, “Opening Declaration”). In addition to the Occhiogrosso Declaration, I have also reviewed the Board’s Decision Granting Institution of *Inter Partes* Review (Paper 11), my deposition transcript (EX2011), and the deposition transcript of Mr. Occhiogrosso (EX1017).

I. “EXPECTED CONTEXT” MAPPINGS IN MY OPENING DECLARATION

2. Because the Occhiogrosso Declaration primarily focuses on my Opening Declaration analysis related to “**expected context**” in claim 12, I will briefly recap that analysis.

3. Claim 12, the only claim challenged in this IPR, recites in relevant part:

[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

- [1] against the grammar expression entries in the context description grammar and
- [2] 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

(’160, 31:1-8 (claim 12) (bracketed annotations added).) In my Opening Declaration, I described two separate ways in which Kennewick alone disclosed and rendered obvious “**one or more expected contexts**” and further described in the alternative how it was obvious over Kennewick in view of Ross. (EX1002, ¶¶78-82.)

4. First, I explained that Kennewick, in connection with determining a most likely context, teaches that multiple “possible contexts are scored and the top one or few are used for further processing.” (EX1002, ¶78 (quoting Kennewick, ¶0152).) These “possible contexts” (which Mr. Occhiogrosso does not dispute are stored in a context stack) correspond to “**one or more expected contexts**” because they are recognized as possibly matching the user’s intent. (EX1002, ¶78 (citing Kennewick, ¶¶0144-0145).) In other words, Kennewick’s “possible contexts” are “**expected contexts**” because Kennewick’s processing reflects an anticipation, or

expectation, that they may match the user’s intent. Notably, neither claim 12 nor the written description 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.” Moreover, Kennewick does not say that all contexts are scored, only “possible” contexts.

5. That these contexts are described as “possible”—as opposed to for example “probable” or “more likely than not”—does not make them not-expected. For example, in the ’160 patent, both claim 12 itself and the written description contemplate that multiple contexts may be “expected.” (’160, claim 12 (“one or more expected contexts”), 13:66-14:2 (“a set of expected contexts that are stored in a context stack to determine a most likely context”).) Therefore, for any given match, it simply cannot be the case that each “expected” context must be more likely than not. In other words, the probability of matching a context cannot serve as a basis for the context to be “possible” but not “expected.” Therefore, in accordance with this first mapping, all of the “possible contexts” as described by Kennewick can be the claimed “**expected contexts**,” as I stated at my deposition. (EX2011 (Schmandt Dep. Tr.), 69:6-11 (discussing first mapping), 70:6-15.) As explained above, in this first mapping, Kennewick’s “possible contexts” are “**expected contexts**” because Kennewick’s processing reflects an anticipation, or expectation, that they may match the user’s intent.

6. Second, my Opening Declaration explained that Kennewick describes storing context keywords associated with earlier questions in a context stack. (EX1002, ¶78 (citing Kennewick, ¶¶0144-0145, 0166 (“Part of the dialog history is maintained in a context stack.”)).) The one or more contexts associated with earlier question(s) (which Mr. Occhiogrosso also does not dispute are stored in a context stack) is another way that Kennewick discloses and renders obvious “**one or more expected contexts.**” (EX1002, ¶78.) The contexts associated with earlier dialog are “**expected contexts**” because they are contexts anticipated to match “follow-on” dialog—as shown by Kennewick’s teaching that a “following-on question can be asked using an abbreviated grammar.” (EX1002, ¶78 (quoting Kennewick, ¶¶0144-0145).) These expected contexts enable “the user [to] simply ask[] about another keyword if the criteria of the question remain constant.” (EX1002, ¶78 (quoting Kennewick, ¶¶0144-0145).)

7. I further explained that the claimed “**one or more expected contexts**” was also obvious in view of Ross. (EX1002, ¶¶80-82.) Ross specifically describes a “context list” that includes “contexts.” (EX1002, ¶80 (citing Ross, Fig. 4, ¶0033).) The contexts are sorted in priority order, such that the most-recently-accessed context—such as the context associated with the most-recently accessed application—will be the first (but not necessarily only) context evaluated when processing the next user utterance. (EX1002, ¶80 (citing Ross, ¶¶0035, 0037).) I

explained that the proposed combination would have predictably resulted in “**one or more expected contexts**’—such as the contexts associated with applications that had already been invoked—‘**stored in a context stack.**’” (EX1002, ¶81 (underlining added).) This result is irrespective of Ross’s methods for later selecting an application to invoke—i.e., it is reasonable to expect that an application invoked in the past will be invoked again. And the addition of Ross’s methods for selecting an application using priority ordering reflects a reasonable heightened expectation that the most-recently accessed application (and thus its context) is more likely to match the user’s next utterance. (EX1002, ¶82 (explaining that priority ordering “enables comparing text against the expected contexts to efficiently identify a matching context”).) This common sense expectation is consistent with numerous well-known aphorisms, such as “history repeats itself,” “past is prologue,” and “the best predictor of future behavior is past behavior.”

II. PERSON OF ORDINARY SKILL IN THE ART DEFINITION

8. There appear to be no disagreements between the parties with respect to the qualifications of a person of ordinary skill in the art, as Mr. Occhiogrosso adopted the formulation in my Opening Declaration. (EX2010, ¶29.)

III. RESPONSE TO MR. OCCHIOGROSSO RE “TECHNICAL INTRODUCTION TO DIALECT’S ’160 PATENT”

9. Paragraphs 32-44 of the Occhiogrosso Declaration purport to provide a “technical introduction to the ’160 patent.” (EX2010, ¶¶32-44.) To the extent any

of Mr. Occhiogrosso's assertions warrant a response, I address them in my analysis below.

IV. CLAIM CONSTRUCTION

10. At paragraph 48 of the Occhiogrosso Declaration, Mr. Occhiogrosso notes district court constructions for terms in patents related to the '160 patent, but he states that "[m]y opinions stated below respond to the Petition without adopting the District Court's constructions." (EX2010, ¶48.) Mr. Occhiogrosso does not argue that district court constructions should apply here or that the prior art fails to disclose or render obvious the challenged claim under any of those constructions.

11. Mr. Occhiogrosso does argue, as discussed below, that Petitioner "fails to apply a proper interpretation" to the term "**expected contexts**." (EX2010, ¶49.) But Mr. Occhiogrosso does not argue that "**expected contexts**" (which was not construed by the district court) should have a particular meaning; only that, according to him, Petitioner has not given the term "expected" any meaning at all. As explained next, I disagree with Mr. Occhiogrosso.

A. Response to Mr. Occhiogrosso re "The Proper Interpretation of Claim 12's 'Expected Contexts'"

12. At paragraphs 49-60 of the Occhiogrosso Declaration, Mr. Occhiogrosso offers various arguments for "[t]he proper interpretation of claim 12's expected contexts." (EX2010, ¶¶49-60.) As explained below, I disagree with Mr. Occhiogrosso.

13. I note that Mr. Occhiogrosso states at paragraph 51 that, at my deposition, I “opined that every context entry in Kennewick’s context stack is a ‘possible context’ and is also an ‘expected context’” and that he “view[s] Petitioner’s challenge as hinging on an assertion that Kennewick’s ‘possible contexts’ discloses the ‘expected contexts.’” (EX2010, ¶51; *see also id.*, ¶60.) Mr. Occhiogrosso is mistaken. As discussed above, I offered a number of different mappings for “**expected contexts**” in my Opening Declaration, based both on Kennewick alone and the combination of Kennewick and Ross. At deposition, I stated that, in accordance with my first mapping based on Kennewick alone, all of the “possible contexts” as described by Kennewick can be the claimed “**expected contexts.**” (EX2011 (Schmandt Dep. Tr.), 69:6-11 (discussing first mapping), 70:6-15.)

14. At paragraphs 52-56, Mr. Occhiogrosso contends that “POSITA would understand the ‘expected contexts’ are a subset of the contexts in a context stack.” (EX2010, ¶54.) I disagree. Claim 12 itself simply recites “**one or more expected contexts stored in a context stack.**” Nothing in the plain language of claim 12 requires that this claimed context stack also store other contexts—the claimed context stack could exclusively store expected contexts. Other contexts, whether expected or not, could be stored apart from these expected contexts, such as in a different context stack or not even on a context stack at all. This straightforward understanding of the claim’s language does not omit “expected” from the claim.

15. Moreover, there is likewise no basis in the written description for this “subset” requirement. Mr. Occhiogrosso relies on the ’160 patent’s statement that “[t]he knowledge-enhanced speech recognition may access a set of expected contexts that are stored in a context stack to determine a most likely context.” (EX2010, ¶53 (citing ’160, 13:64-14:2).) Putting aside that claim 12 does not even recite a “set” of expected contexts, nothing about this statement requires that the “set of expected contexts” be only a subset of contexts stored in that context stack. For example, there is nothing about a “set” being “stored in a...stack” that requires that stack to store anything additional—the “set of expected contexts” alone, based on their ordering, could comprise a context stack. In other words, the “set” describes a logical collection, while the “context stack” describes how that set is actually stored. The ’160 patent nowhere describes, for example, filtering the contexts in the context stack to focus on a set of “expected contexts” before identifying matching contexts. Instead, the contexts in the claimed context stack could be “expected” by virtue of being in that context stack, while other, not-expected contexts may be stored elsewhere.

16. At paragraph 57, Mr. Occhiogrosso argues that the ’160 patent’s description of using a set of “expected contexts” as part of “another” embodiment of the invention supports his opinion that “expected contexts” are different from “possible contexts.” (EX2010, ¶57.) Mr. Occhiogrosso appears to be arguing that

claim 12 should be limited to the embodiment mentioning the “set of expected contexts.” But I am informed that, under the patent laws, it is improper to read limitations from an embodiment described in the specification (even if it is the only embodiment) into the claims absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited. Here, not only does the ’160 patent disclose multiple embodiments, the particular embodiment Mr. Occhiogrosso points to is described as yet “another embodiment.” The ’160 patent does not describe it as a distinct invention or otherwise clearly indicate that claims should be limited to that embodiment, through disavowal, lexicography or otherwise. For example, the passage Mr. Occhiogrosso points to has no discussion of scoring matching contexts, which indicates that the passage should not be read in isolation, but rather as a part of the entire written description. Moreover, the ’160 patent also separately describes how “agents may update a context stack to enable follow-up requests.” (’160, 3:14-15 (“The agents may update a context stack to enable follow-up requests.”), 13:57-59 (“Agents **106** may update a context stack, that includes an ordered list of command contexts, to enable follow-up requests.”).) A person of ordinary skill in the art would have recognized that these context stack updates to enable follow-up requests would comprise “**expected contexts**” just as in Kennewick; and the patent provides no reason to exclude them. Similarly, Mr. Occhiogrosso relies on the ’160 patent’s passage describing “another embodiment” to argue that only expected

contexts could use “context specific matchers” (EX2010, ¶¶41 (“A POSITA reading the ’160 patent would understand that the ‘expected contexts’ could use these context specific matchers, while other (i.e., non-expected) context stack entries may not use these context specific matchers.”) (citing ’160, 14:2-6), ¶56)—but the cited passage simply refers broadly to “context specific matchers that are able to identify context” and nowhere limits their use to identifying or matching only “expected contexts.”

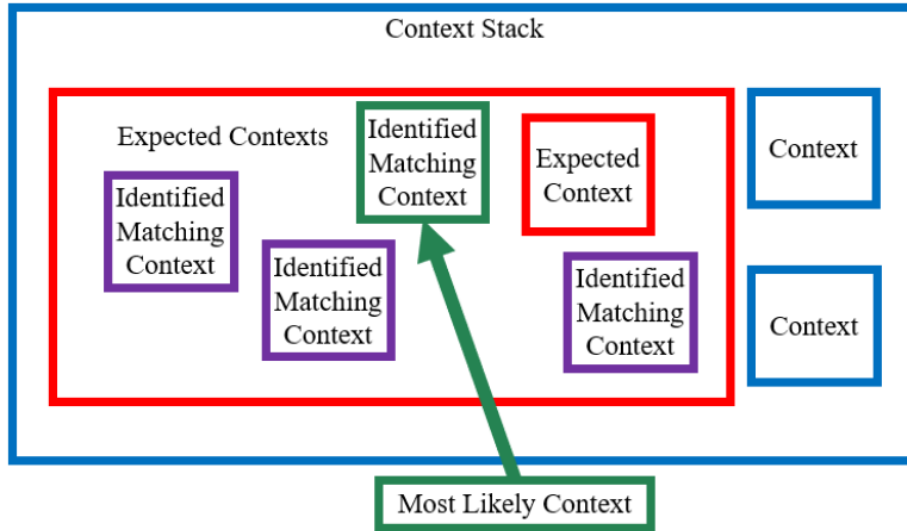
17. At paragraph 58, Mr. Occhiogrosso further argues that “in the ‘possible context’ embodiment, the ‘possible contexts’ are scored,” while “[in] the ‘expected contexts’ embodiment, [] the ‘expected contexts’ are not initially scored.” (EX2010, ¶58.) But as discussed in my Opening Declaration, a person of ordinary skill in the art would have found it obvious that the “possible contexts” were likewise used to identify matching contexts by comparing text combinations against those contexts. (EX1002, ¶¶61, 78, 83.) In particular, I noted how identifying “possible contexts” matching an utterance involved, for example, “keyword matching” (EX1002, ¶61)—in other words, identifying “possible contexts” involved comparing an utterance’s text combinations (keywords) to the possible contexts. For example, I explained, “[a] person of ordinary skill in the art would have therefore understood that the text ‘temperature’ ‘matches’ the ‘weather’ context.” (EX1002, ¶61.)

B. Response to Mr. Occhiogrosso re “Petitioner Also Fails to Apply a Proper Interpretation of Claim 12’s Claimed Order of Steps”

18. At paragraphs 61-69 of the Occhiogrosso Declaration, Mr. Occhiogrosso argues that “Petitioner also fail[ed] to apply a proper interpretation of Claim 12’s claimed order of steps.” (EX2010, ¶¶61-69.) As explained below, I disagree with Mr. Occhiogrosso.

19. The gist of Mr. Occhiogrosso’s argument appears to be that steps 12[b] and 12[c]—i.e., “identifying one or more contexts” and “scoring each of the identified matching contexts”—are entirely separate steps that must occur in sequence. (EX2010, ¶¶61-66.) For example, according to Mr. Occhiogrosso, “element 12[c] must occur after element 12[b], and that element 12[d] must occur after element [c].” (EX2010, ¶61.)

20. Using the diagram below to illustrate, Mr. Occhiogrosso argues that claim 12 “require[s] a context stack with contexts, with some of those contexts being expected contexts, and with one or more of those expected contexts being identified as matching contexts, which are thereafter scored to select one of those identified matching contexts as a most likely context”:



(EX2010, ¶68.) But even if claim 12 encompassed Mr. Occhiogrosso’s scenario above, claim 12 is not limited to it.

21. Instead, I understand that claim 12 is a “comprising” claim. I am informed that, under the patent laws, a “comprising” claim is inclusive or open-ended and does not exclude additional, unrecited elements or method steps. Therefore, for example, when claim 12 recites “scoring each of the identified matching contexts,” the claim does not exclude scoring other contexts. Claim 12 does not recite, for example, “scoring only the identified matching contexts.” In fact, step 12[b] broadly recites that “**identifying...includes**” a comparison against expected contexts; it does not say that identifying is limited to only the recited comparisons. Moreover, the scoring step 12[c] could take place in parallel with, or even as part of, the identifying step 12[b] performed by Kennewick. I disagree that the claim language imposes any requirement that step 12[b] must be fully completed

before step 12[c] can begin. For example, a first expected context could be scored when it is identified as a match, or as part of the process of identifying it as a match, before turning to a second expected context for matching. Therefore, Kennewick's disclosures of how keyword matching, for example, is used to identify matching possible contexts and how "the possible contexts are scored and the top one or few are used for further processing" is fully consistent with claim 12. (EX1002, ¶¶83-84.)

V. RESPONSE TO MR. OCCHIOGROSSO RE "PETITIONER'S MERITS CHALLENGES"

A. Response to Mr. Occhiogrosso re "Kennewick Fails to Disclose Element 12[b]"

22. The Occhiogrosso Declaration next largely repeats its earlier arguments as to why, according to Mr. Occhiogrosso, both alternative ways that Kennewick discloses 12[b] fail. (EX2010, ¶¶74-95.)

1. Response to Mr. Occhiogrosso re "Kennewick fails to disclose 'expected contexts'"

23. Paragraphs 75-95 of the Occhiogrosso Declaration offers various arguments why, according to Mr. Occhiogrosso, "Kennewick fails to disclose 'expected contexts.'" (EX2010, ¶¶75-97.)

24. At paragraphs 78-79, Mr. Occhiogrosso repeats his argument that "'possible contexts' represent contexts that are scored," while "'expected contexts' are compared against text combinations as part of the step of identifying matching

contexts.” I fully addressed this argument above—for example, Mr. Occhiogrosso is ignoring that claim 12 is a “comprising” claim, and moreover, he is improperly imposing a sequencing requirement on the recited steps.

2. Response to Mr. Occhiogrosso re “Petitioner’s First Theory of ‘expected contexts’ in Kennewick Fails”

25. At paragraphs 81-87, Mr. Occhiogrosso argues that “Petitioner’s first theory of ‘expected contexts’ in Kennewick fails,” largely by repeating arguments already addressed above. (EX2010, ¶¶81-87.)

26. Mr. Occhiogrosso acknowledges that “Kennewick uses keyword matching on its context stack” but asserts that “Petitioner has not shown that any entries subject to keyword matching are ‘expected contexts.’” (EX2010, ¶82.) It is not clear why, other than being referred to as “possible contexts” instead of “expected contexts” that, in Mr. Occhiogrosso’s view, Kennewick’s “possible contexts” cannot be the claimed “expected contexts.” As discussed above, and in my Opening Declaration, the “possible contexts” correspond to “**one or more expected contexts**” because they are recognized as possibly matching the user’s intent. (EX1002, ¶78; Kennewick, ¶¶0144-0145.) As discussed above, 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.” And the fact that they are referred to as “possible” contexts does not make them not-

expected.

27. Mr. Occhiogrosso then repeats his unsupported argument that “the ’160 patent does not look at all entries in the context stack and, instead, focuses on a set of ‘expected contexts’ *before* identifying matching contexts.” (EX2010, ¶83 (emphasis in original).) As discussed above, neither claim 12 nor the written description supports a requirement that the claimed context stack include non-expected contexts or that the context stack is somehow filtered before identifying matching contexts. Mr. Occhiogrosso claims that the ’160 patent added a “new embodiment” to the earlier Kennewick application (EX2010, ¶83), but that is irrelevant to a prior art invalidity analysis of claim 12, absent a clear disclaimer or intent to limit claim 12 to that embodiment, neither of which is present here.

28. Mr. Occhiogrosso next repeats his order-of-steps argument for claim 12. (EX2010, ¶84 (“Additionally, Petitioner ignores the order of elements 12[b], 12[c], and 12[d] in claim 12”).) I fully addressed this argument in Part IV.B above.

29. Mr. Occhiogrosso next repeats his argument that Kennewick’s “possible contexts” cannot be the claimed “expected contexts.” (EX2010, ¶¶85-86 (arguing that Petitioner “unreasonably insinuates that any context in a context stack is ‘expected’ by conflating the entire context stack with ‘one or more expected contexts.’”).) I fully addressed this argument in Parts I and IV.A above.

3. Response to Mr. Occhiogrosso re “Petitioner’s Second Theory of ‘expected contexts’ in Kennewick Also Fails”

30. At paragraphs 88-95, Mr. Occhiogrosso argues that “Petitioner’s second theory of ‘expected contexts’ in Kennewick also fails,” again by largely repeating arguments already addressed above. (EX2010, ¶¶88-95.)

31. Mr. Occhiogrosso first repeats his argument that Kennewick uses “previous context” (one or more contexts associated with earlier question(s)) in a scoring step rather than “in a pre-scoring step of identifying matching contexts using expected contexts.” (EX2010, ¶¶88-91.) I fully addressed this argument in Parts I and IV above. As explained, Kennewick teaches using contexts associated with earlier questions(s) (“**one or more expected contexts**”) to identify matching contexts. (*See, e.g.*, EX1002, ¶78.) And as I explained above, the plain language of claim 12 fully encompasses context scoring in Kennewick that may take place during, or even as part of, that identification process.

32. Mr. Occhiogrosso next argues that Kennewick “does not identify which entries in a context stack are considered ‘expected contexts,’ or how a search of a following-on question utterance is directed [or constrained to] to any ‘expected contexts.’” (EX2010, ¶¶91-92.) But as explained in Part I above, neither claim 12 nor the written description 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.” A context associated with an

earlier question is an “**expected context**” by virtue of its function in Kennewick’s system in subsequently identifying matching contexts. Just like sayings such as “the best predictor of future behavior is past behavior,” tracking and using contexts associated with earlier questions reflects an expectation that the contexts will be used again. And, as a “comprising” claim, there is nothing in claim 12 that requires the claimed identifying step to be directed only to, or to be constrained to, only “expected contexts”—as discussed, claim 12’s identifying step 12[b] broadly recites that “**identifying...includes**” a comparison against expected contexts; it does not say that identifying is limited to only the recited comparisons.

33. Mr. Occhiogrosso next argues that “Petitioner provides no reasoning to support the asserted linkage of ‘context keyword(s) ... associated with an earlier question,’ or dialog history, to expected contexts, nor does Petitioner explain how ‘context keyword(s) ... associated with an earlier question’ can be an ‘example’ of expected contexts.” (EX1020, ¶93.) This argument is simply a repackaged version of Mr. Occhiogrosso’s argument that Kennewick does not expressly flag a context as “expected,” which was addressed above.

34. Mr. Occhiogrosso’s last argument is similarly a repackaged version of his argument that claim 12 requires that only expected contexts can be compared. (EX2010, ¶94 (“Petitioner’s theory would require a narrower comparison to only those entries ‘associated with an earlier question’”) (underlining added).) This

argument was fully addressed above.

B. Response to Mr. Occhiogrosso re “Ross Also Lacks ‘Expected Contexts’ and Fails to Remedy the Deficiencies of Kennewick”

35. At paragraphs 96-110, Mr. Occhiogrosso argues that “Ross also lacks ‘expected contexts’ and fails to remedy the deficiencies of Kennewick,” again by largely repeating arguments already addressed above. (EX2010, ¶¶96-110.) I note that Mr. Occhiogrosso does not dispute that it would have been obvious to combine Kennewick and Ross; he instead argues only that the combination fails to fully disclose every claim limitation.

1. Response to Mr. Occhiogrosso re “Ross’s system uses grammar stored in a context list to determine which application can process a speech command”

36. Mr. Occhiogrosso first argues that Ross’s process of selecting a context is not “a comparison of text combinations from an utterance against one or more expected contexts (i.e., prior utterances) stored in a context stack, but rather a check of which application can process a transcribed utterance.” (EX2010, ¶99; *see also id.*, ¶¶97-99.) Mr. Occhiogrosso’s argument appears to hinge on equating “**expected contexts**” with “prior utterances.” But this ignores how I mapped Ross and the proposed combination, and improperly attacks Ross individually.

37. As I explained in my Opening Declaration, Ross discloses “**expected contexts**” by virtue of matching and subsequently reordering contexts in a context stack. I explained:

Ross, with a similar system, confirms storage of “**expected contexts**” in a “**context stack**,” and that doing so enables comparing text against the expected contexts to efficiently identify a matching context. (Ross, ¶0035 (“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.”).)

(EX1002, ¶82 (emphasis in original).) Accordingly, similar to Kennewick, the ordering of a context stack reflects expectations regarding which contexts are likely to be matched in the future—and therefore, as I explained, “[t]he combination would have predictably resulted in ‘**one or more expected contexts**’—such as the contexts associated with applications that had already been invoked—‘**stored in a context stack.**’” (EX1002, ¶81 (underlining added).) For example, in Ross, the most recently accessed context matched to process a user’s utterance, and moved as a result to the top of the context stack, is an example of an “**expected context.**” Applying Ross’s “expected context” technique to Kennewick’s own contexts—either of Kennewick’s “possible contexts” or “contexts associated with earlier

question(s)”—would have accordingly predictably resulted in Kennewick’s own contexts being “**expected contexts.**”

38. Mr. Occhiogrosso next argues that Ross discloses a “first-to-match system” and therefore fails to disclose “expected contexts.” (EX2010, ¶¶100-103.) To begin with, Mr. Occhiogrosso’s argument is based on a misreading of claim 12. The claim only requires comparing against one expected context: “comparing the text combinations...against one or more expected contexts stored in a context stack.” (’160, 31:4-7 (claim 12).) Therefore, even if Mr. Occhiogrosso were correct that Ross only matches one expected context, Ross (and the combination with Kennewick) still satisfies the claim language.

39. But moreover, Ross does disclose matching multiple expected contexts. For example, Ross states:

[S]ince there will always be overlap between what the different application grammars will accept, the speech center **20** does not necessarily dispatch a command back to the application **26** whose grammar recognized it. Instead, when an utterance is recognized, it will be tested against each application’s grammar to see if the grammar will accept it.

(Ross, ¶0035 (underlining added).) Mr. Occhiogrosso attempts to dismiss this clear teaching by pointing to Ross’s statement that “[t]he first application’s grammar which will accept the utterance is then used for translation, and the command

dispatched to the corresponding application 26.” (EX2010, ¶101 n.3 (quoting Ross, ¶0035).) Even if Mr. Occhiogrosso were correct, as explained above, claim 12 would still be satisfied, since it only requires matching one expected context.

40. But moreover, Ross teaches matching multiple contexts. For example, claim 12 of the ’160 patent states that matching can be both “partial” and “complete.” (’160, 31:1-3 (“completely or partially match one or more text combinations contained in the transcription”) (underlining added).) In Ross, the phrase “open the first message,” for example, would both completely match the electronic mail application and partially match the calendar application, because the calendar application would match the “open the first” portion that corresponds to an “open the first appointment” phrase. (Ross, ¶¶0041-0042, 0047-0048.) At his deposition, Mr. Occhiogrosso agreed that Ross contemplates both partial and complete matching. (EX1017, 20:22-21:6 (“If the grammar will accept the phrase, whether it’s a complete match or not, then that would be the grammar that Ross would select”) (underlining added).) Therefore, even if Mr. Occhiogrosso were correct about Ross, if the context for the calendar application were tested before the context for the electronic mail application, Ross would have matched multiple contexts—the first a “partial” (and unacceptable) match, and the second a “complete” (and acceptable) match.

41. Mr. Occhiogrosso’s argument also improperly attacks Ross

individually when Petitioner's mapping involved the combination of Kennewick and Ross. I am informed that, under the patent laws, a finding of obviousness cannot be overcome by attacking references individually where the rejection is based upon the teachings of a combination of references. As discussed in my Opening Declaration, the proposed combination would have predictably resulted in identifying one or more matching expected contexts, each of which would have been scored in order to select the matching context having a highest score, as taught by Kennewick. (EX1002, ¶¶81-86.) Therefore, even if Ross did not disclose matching multiple expected contexts, it still would have been obvious under the proposed combination. In fact, Kennewick not only discloses matching multiple contexts, Kennewick provides express motivation for matching, identifying, and scoring multiple expected contexts. In particular, as discussed in my Opening Declaration, Kennewick expressly teaches both scoring multiple contexts and prompting a user for confirmation if a "score is not high enough to ensure a reliable response." (EX1002, ¶¶55 (citing Kennewick, ¶¶0031, 0153) (confidence level), 78 (citing Kennewick, ¶0152), 83 (citing Kennewick, ¶0153).) It would have been obvious to a person of ordinary skill in the art, therefore, when combining Ross with Kennewick, to adapt Ross's context matching techniques so that multiple expected contexts were matched, identified, and scored to help ensure that the most appropriate context was selected. (*See also* EX1002, ¶82.)

2. Response to Mr. Occhiogrosso re “Ross’s use of grammar in the context list fails to disclose “expected contexts””

42. Mr. Occhiogrosso next argues that Ross “does not compare text combinations against *one or more expected contexts stored in a context stack*” because “[t]here is no concept of ‘expected contexts’ in Ross.”¹ (EX1020, ¶¶105-106) (emphasis in original).) Mr. Occhiogrosso’s argument appears to be, again, that Ross does not expressly flag or distinguish between “contexts” and “expected contexts.” (EX1020, ¶108 (“But as noted above, my opinion is that it is incorrect to treat all entries in a context stack as ‘expected.’”).) But again, as discussed in Part I above, neither claim 12 nor the written description 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” or that

¹ Mr. Occhiogrosso does not argue that Ross fails to disclose “contexts” generally. Nor could he, since Ross specifically describes maintaining a “context list” comprising a queue of “context” objects that can store grammars as well as “lists of keywords or phrases, hashed lists of words, or other suitable approaches to allow identification of a phrase as acceptable to a speech-enabled application 26.” (Ross, ¶¶0038, 0060; *see also id.*, ¶0033; EX1017, 22:5-16 (discussing Ross ¶0060; “The context may include going to that second list of key words”).)

the context stack also contain non-expected contexts.

43. Lastly, Mr. Occhiogrosso argues that “because Ross only selects a single grammar among the context list based on a first match, the claimed concepts of ‘scoring each of the identified matching contexts’ in element 12[c] and ‘selecting the matching context having a highest score to determine a most likely context for the utterance’ in element 12[d] are antithetical and unknown to Ross.” (EX2010, ¶109.)

44. However, claim 12 only requires identifying one matching context: “**identifying one or more contexts.**” (’160, 31:1-7 (claim 12).) Although claim 12 later recites “scoring each of the identified matching contexts,” that phrase is referring back to the “one or more contexts” identified in step 12[b], as Mr. Occhiogrosso agreed at his deposition. (EX1017, 16:2-5.) Because “the identified matching contexts” refers back to “one or more contexts,” it does not require multiple matching contexts. Similarly, when step 12[d] recites “selecting the matching context having a highest score,” it also requires just one “matching context.” A single scored matching context would by definition have “a highest score.” Therefore, Ross satisfies the claim language.

45. Moreover, as explained above, Mr. Occhiogrosso again improperly attacks Ross individually, when my analysis is based on the combination of Kennewick and Ross. Even if claim 12 required identifying multiple contexts, as

explained in my Opening Declaration, and above, a person of ordinary skill in the art would have found it obvious under the combination to identify multiple contexts (EX1002, ¶¶79-82), score those multiple contexts (EX1002, ¶¶83-84), and select the context with a highest score to determine a most likely context (EX1002, ¶¶85-86).

VI. CONCLUSION

46. In signing this Declaration, I recognize that the Declaration will be filed as evidence in a contested case before the Patent Trial and Appeal Board of the United States Patent and Trademark Office. I also recognize that I may be subject to cross-examination in this proceeding. If required, I will appear for cross-examination at the appropriate time. I reserve the right to offer opinions relevant to the invalidity of the challenged claims at issue and/or offer testimony in support of this Declaration.

Reply Declaration of Christopher Schmandt
IPR2024-00753

47. I hereby declare that all statements made herein of my own knowledge are true and that all statements are made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001.

Dated: May 15, 2025

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Chris Schmandt', written over a horizontal line.

Christopher Schmandt
Oak Bluffs, MA