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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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Ex parte LAWRENCE Y. YANG, GIULIA PAGALLO,
LINDEN B. SIAHAAN, JUSTIN WOOD, ROBERTO GARCIA,
JEROME RENE BELLEGARDA, and TIFFANY S. JON

_____

Appeal 2018-007525
Application 14/719,163
Technology Center 2100

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Before MAHSHID D. SAADAT, NORMAN H. BEAMER, and
SCOTT RAEVSKY, *Administrative Patent Judges*.

RAEVSKY, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant[1] appeals from the
Examiner's decision to reject claims 1–4 and 6–26. We have jurisdiction
under 35 U.S.C. § 6(b). We conducted an oral hearing on March 9, 2020. A
transcript of the proceeding will be entered into the record in due course.

We affirm.

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[1] We use the word "Appellant" to refer to "applicant" as defined in 37
C.F.R. § 1.42(a). Appellant identifies the real party in interest as Apple Inc.
Appeal Br. 5.

CLAIMED SUBJECT MATTER

The claims relate generally to messaging, and more specifically to techniques for suggesting predictive answers that a user can select to respond to an incoming message. *See* Spec. ¶ 3. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1.   A non-transitory computer readable storage medium storing one or more programs, the one or more programs comprising instructions, which when executed by one or more processors of an electronic device with a touch-sensitive display, cause the electronic device to:
    display a message transcript, the message transcript including at least one message from at least a first user;
    determine, based at least in-part on the at least one message, a plurality of suggested one or more characters, wherein determining the plurality of suggested one or more characters comprises:
        determining whether the word "or" is used in the at least one message, and
        in accordance with a determination that the word "or" is used in the at least one message:
            identifying a preceding word that appears immediately before the word "or", and
            identifying a subsequent word that appears immediately after the word "or";
    display, on the touch-sensitive display, the plurality of suggested one or more characters, wherein the displayed plurality of suggested one or more characters includes at least the preceding word and the subsequent word;
    detect an input on the touch-sensitive display;
    determine whether the input represents user selection of one of the plurality of suggested one or more characters; and
    in accordance with a determination that the input represents user selection of one of the plurality of suggested one or more characters, display the selected one of the plurality of suggested one or more characters in the message transcript.

REFERENCES

The prior art relied upon by the Examiner includes:

Agarwal	US 8,832,584 B1	Sept. 9, 2014
Archer	US 2013/0253906 A1	Sept. 26, 2013
Block	US 2010/0088302 A1	Apr. 8, 2010
Chauhan	US 7,890,996 B1	Feb. 15, 2011
Coccaro	US 2014/0278379 A1	Sept. 18, 2014
Cranfill	US 8,502,856 B2	Aug. 6, 2013
Esplin	US 2015/0188861 A1	Jul. 2, 2015
Grieves	US 2013/0339283 A1	Dec. 19, 2013
Kuwahara	US 2012/0278765 A1	Nov. 1, 2012
Lee	US 2013/0297317 A1	Nov. 7, 2013
Lyon	US 2010/0312838 A1	Dec. 9, 2010
Orr	US 2011/0302249 A1	Dec. 8, 2011
Rubin	US 7,127,432 B2	Oct. 24, 2006
Swanburg	US 2010/0287241 A1	Nov. 11, 2010
Perry	US 2009/0106695 A1	Apr. 23, 2009

REJECTIONS

Claims 1, 2, 4, 6, 8–10, 15, 21–23, 25, and 26 stand rejected under 35 U.S.C. § 103 as unpatentable over Esplin, Agarwal, and Block. Final Act. 2.

Claims 3, 7, 11–14, 16–20, and 24 stand rejected under 35 U.S.C. § 103 as unpatentable over Esplin, Agarwal, Block, and various other references listed above. *See* Final Act. 14–33.

ANALYSIS

Independent Claims 1, 25, and 26

Issue 1: Did the Examiner err in finding the combination of Esplin, Agarwal, and Block teach or suggest "determining whether the word 'or' is used in the at least one message," as recited in claim 1? *See* Appeal Br. 17–23.

Agarwal describes a user interface that outputs an example literary passage, "It is the east, and Juliet is the sun!" Agarwal, 10:50–55, Figs. 4, 5. From the user interface, a user adds a question for other users to answer based on the passage, such as, "Is Juliet said to be the sun *or* the moon?" *Id.* at 11:9–19 (emphasis added), Fig. 5. Agarwal's system can use a programmatic technique or a manual technique to discover the answer to this question. *Id.* at 5:61–6:43. A second user interface presents the user-created question to a different user with "two possible discrete answers," which in the above example are "sun and moon," as selectable buttons beneath the question. *Id.* at 11:49–55, Fig. 6.

Block discloses a messaging system that can determine whether messages are queries. Block, Abstr., ¶ 81. Block teaches that "a determination can be made as to whether alternatives are provided in a message that requires an answer," for example, alternatives in a phrase like "please select A, B or C." *Id.* ¶ 81.

With respect to Agarwal, the Examiner finds that "[d]etermining the use of the word 'or' is *hinted* by the canned answer presenting process, since the two presented answers 'Moon' and 'Sun' are connected by the conjunction word 'or'." Ans. 37 (emphasis added); *see also* Final Act. 5. The Examiner also finds that Block provides "further evidence" that one of ordinary skill in the art would have determined whether the word "or" is used. Final Act. 6–7 (citing Block ¶ 81). Specifically, regarding Block's phrase "please select A, B or C," the Examiner finds "[t]he word 'or' has to be determined in order for the alternatives to be identified one after another." Ans. 37–38.

Appellant asserts that neither Agarwal nor Block discloses this limitation. Appeal Br. 17–23. With respect to Agarwal, Appellant contends that Agarwal does not explicitly describe *how* the possible answers "Sun" and "Moon" are determined. Appeal Br. 20. In addition, Appellant contends, "Agarwal does not describe that any of [Agarwal's] techniques for discovering possible answers to a question involve determining whether the word 'or' is used in the question." *Id.* According to Appellant, Agarwal's "parsing technique . . . only generally describes 'parsing the question' and 'searching' and 'identify[ing]' keywords, but does not specifically describe how the keywords are identified." *Id.* (citing Agarwal 2:61–63, 5:61–6:2, 10:13–15). Appellant also disagrees with the Examiner's finding that Agarwal's system "has to extract every single word in the message which includes scanning [the] word 'or' in order to obtain candidate answer words." *Id.* at 20–21 (citing Final Act. 5) (emphasis omitted). Finally, Appellant contends, "even if Agarwal does scan every single word, . . . scanning a word also does not require an active determination of what the scanned word is." *Id.* at 21.

With respect to Block, Appellant contends that determining whether alternatives are provided in Block's message "does not necessarily require determining whether the word 'or' is used" because Block describes other techniques, such as detecting punctuation. Appeal Br. 22.

We find Appellant's arguments unpersuasive. "[A] reference must be considered not only for what it expressly teaches, but also for what it fairly suggests." *In re Burckel*, 592 F.2d 1175, 1179 (CCPA 1979). With respect to Agarwal, we agree with the Examiner's finding that "[d]etermining the use of the word 'or' is *hinted* by [Agarwal's] canned answer presenting

process, since the two presented answers 'Moon' and 'Sun' are connected by the conjunction word 'or'." Ans. 37 (emphasis added); *see also* Final Act. 5. In other words, we find one of ordinary skill in the art would view Agarwal's question in Figure 5 ("Is Juliet said to be the sun or the moon?") and subsequent answers in Figure 6 ("Sun" and "Moon") as *suggesting* "determining whether the word 'or' is used in the at least one message," as recited in claim 1. Certainly such a question "posted for consideration by a community of users" would have caused one of Agarwal's users to identify the word "or" as indicating alternatives. *See* Agarwal 6:28–61.

However, even if Agarwal's programmatic or manual (e.g., community of users) techniques did not detect the word "or," Block further suggests that one of ordinary skill in the art would have done so. Specifically, we agree with the Examiner that in Block's phrase, "please select A, B or C," "[t]he word 'or' has to be determined in order for the alternatives to be identified one after another." Ans. 37–38. One of ordinary skill in the art would have understood that Block at least suggests determining whether alternatives are provided by identifying the term "or" in order to identify that A, B, and C are alternatives of one another. Appellant's contention that Block's punctuation would suffice to detect alternatives is unpersuasive. *See* Appeal Br. 22. Although Block relies on punctuation to detect alternatives in the phrase "yes/no" (i.e., detecting the slash, "/"), one of ordinary skill in the art would have known that detecting the commas in the phrase "please select A, B, or C" would be insufficient to determine whether alternatives are provided. *See* Block ¶ 81. For example, if the message had instead stated "please select A, B, and C," detecting

commas would have returned a false positive, as the phrase "A, B, and C" does not include alternatives.

Accordingly, Appellant does not persuade us of Examiner error with respect to this limitation.

Issue 2: Did the Examiner err in finding the combination of Esplin, Agarwal, and Block teach or suggest "in accordance with a determination that the word 'or' is used in the at least one message: identifying a preceding word that appears immediately before the word 'or', and 'identifying a subsequent word that appears immediately after the word 'or'," as recited in claim 1? *See* Appeal Br. 23–25.

Appellant contends that in Agarwal's question, "Is Juliet said to be the sun or the moon," the word "the" immediately follows "or," but Agarwal displays the word "moon" as an answer instead of "the." *Id.* at 24. According to Appellant, this shows that Agarwal "is not 'identifying a subsequent word that appears immediately after the word 'or.'" *Id.* The Examiner finds, "[t]he claim limitation recites the element 'a subsequent word that appears immediately after the word 'or'[,] wherein the feature 'immediately after' could refer to the word which is next to the word 'or', or even the word which is secondly next to the word 'or'." Ans. 38; Final Act. 5–6.

We need not decide the claim construction issue posed by the Examiner because Appellant's hypertechnical argument ignores what Agarwal fairly suggests to one of ordinary skill in the art. Agarwal teaches that a user can "enter a new question" and gives the "*example*" question, "Is Juliet said to be the sun or the moon?" Agarwal 11:15–19 (emphasis added). Agarwal's teachings are not limited to this one example question. Because

Agarwal teaches that a user can enter any question, one of ordinary skill in the art would have understood that the user could have just as easily asked, "Is Juliet said to be the sun *or moon*?" *See id.* In this latter question, the word "moon" immediately follows the word "or," and one of ordinary skill in the art would have understood that the word "moon" would still have been selected as one of the possible answers, thereby meeting the broadly-worded "identifying" limitations. Accordingly, Appellant also does not persuade us of Examiner error with respect to this limitation.

Issue 3: Did the Examiner err in finding the combination of Esplin, Agarwal, and Block teach or suggest "wherein the displayed plurality of suggested one or more characters includes at least the preceding word and the subsequent word," as recited in claim 1? *See* Appeal Br. 25–26.

Similar to Appellant's previous argument, Appellant contends that "the word 'the' appears immediately after the word 'or,'" but that "the word 'the' is not displayed as a possible answer to the question; instead, the word 'moon' is displayed." *Id.* at 26. For similar reasons as the previous argument, this argument is also unpersuasive. One of ordinary skill in the art would have understood that in the modified question posed above ("Is Juliet said to be the sun *or moon*"), "moon" would have been selected as a possible answer.

Issue 4: Did the Examiner err in finding that one of ordinary skill in the art would have combined Esplin and Block? *See* Appeal Br. 26–29.

Appellant initially contends that the Examiner's rationale, "the prior arts are from the same application field of user interface display," is deficient because "the field of user interface display is far too broad and diverse to support a rationale" to combine. *Id.* at 27 (citing Final Act. 7). In

focusing on this statement by the Examiner, Appellant overlooks the Examiner's follow-up statement, which states, "[t]his allows to assist with the selection of words that are likely to be unique, and this word used as the keyword for context correlation." Final Act. 7 (emphasis omitted). Thus, the Examiner did not merely rely on the similar fields of Esplin and Block to support their combination.

Appellant further contends that modifying Esplin with Block would change the principle of operation in Block and render Esplin unsatisfactory for its intended purpose. Appeal Br. 27–29. For instance, Appellant contends, "the techniques described in Block are focused on solving the problem of context correlation and correctly associating an answer with a query" whereas "Esplin is primarily concerned with providing relevant responses." *Id.* at 27 (emphasis omitted). Appellant further contends, contrary to the Examiner's articulated rationale, "Esplin does not raise or suggest the issue of context correlation." *Id.* at 28. Appellant concludes that modifying Esplin as "proposed by the Examiner would change the operation of Esplin from one that selects a response based primarily on **relevance** to one that selects a response based primarily on the likelihood that the response is **unique**." *Id.*

We disagree. The Federal Circuit has consistently held,

> the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art.

MCM Portfolio LLC v. Hewlett-Packard Co., 812 F.3d 1284, 1294 (Fed. Cir. 2015) (citation omitted). We do not view the Examiner's proposed combination as bodily incorporating "context correlation" from Block with "relevant responses" in Esplin. Rather, the Examiner proposes combining Block's teachings about identifying alternatives with Esplin. Final Act. 6–7; Ans. 37–38.

Accordingly, we sustain the Examiner's rejection of claim 1. Appellant's arguments regarding the rejections of independent claims 25 and 26 rely on the same arguments as for claim 1. *See* Appeal Br. 14. We, therefore, also sustain the Examiner's rejection of independent claims 25 and 26. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Dependent Claims

Dependent claim 3 recites, in part, "displaying a virtual keyboard." For this claim, Appellant contends that Grieves teaches away from Esplin, Agarwal, and Block. Appeal Br. 30. Appellant contends that Esplin teaches away from Grieves' virtual keyboard because Esplin states that "these conventional techniques are not only inefficient and time-consuming, but also, often, not available on smaller computing devices that are too small to display a keyboard." *Id.* (citing Esplin ¶ 3) (emphasis omitted). For similar reasons, Appellant contends that modifying Esplin with Grieves would render Esplin unsatisfactory for its intended purpose. *Id.* at 31.

"The prior art's mere disclosure of more than one alternative does not constitute a teaching away from any of these alternatives because such disclosure does not criticize, discredit, or otherwise discourage the solution claimed." *In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004). "[A]ll of the

relevant teachings of the cited references must be considered in determining what they fairly teach to one having ordinary skill in the art." *In re Mercier*, 515 F.2d 1161, 1165 (CCPA 1975).

Appellant's argument is unpersuasive because it does not take into account all the teachings of Esplin. Elsewhere, Esplin teaches that its computing device may, in fact, include "virtual or regular keyboards." Esplin ¶ 16. Because Esplin teaches including virtual keyboard as an alternative embodiment, Esplin does not teach away from virtual keyboards. Nor would combining Grieves' virtual keyboard with Esplin render Esplin unsatisfactory for its intended purpose because one of Esplin's purposes is to have a virtual keyboard. Accordingly, we sustain the Examiner's rejection of claim 3.

Dependent claim 7 recites, in part, "determining whether the at least one message contains an interrogatory sentence; and in accordance with a determination that the at least one message contains an interrogatory sentence, displaying at least 'yes' and 'no' as part of the plurality of suggested one or more characters." For this claim, the Examiner finds the combination of Esplin, Agarwal, Block, and Swanburg "allows a response message based upon the selected response option and the response message can be sent to the first device." Final Act. 18 (emphasis omitted). Appellant contends the "Examiner has not provided a valid rationale to support the legal conclusion of obviousness." Appeal Br. 32. Specifically, Appellant argues the combination of Swanburg with Esplin, Agarwal, and Block is improper because "Esplin already allows canned message[s] to be selected and transmitted as a reply." Appeal Br. 32 (citing Esplin ¶ 36, Fig. 2B).

This argument is conclusory and, in any event, unpersuasive. Appellant does not point to any evidence of record that the combination would be "uniquely challenging or difficult for one of ordinary skill in the art" or "represent[] an unobvious step over the prior art." *Leapfrog Enters. Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007) (citing *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418–19 (2007)). Nor has Appellant provided objective evidence of secondary considerations, which our reviewing court states "operates as a beneficial check on hindsight." *Cheese Sys., Inc. v. Tetra Pak Cheese and Powder Sys.*, 725 F.3d 1341, 1352 (Fed. Cir. 2013). The Examiner's findings are reasonable because the skilled artisan would "be able to fit the teachings of multiple patents together like pieces of a puzzle" because the skilled artisan is "a person of ordinary creativity, not an automaton." *KSR*, 550 U.S. at 420–21. We are persuaded the claimed subject matter exemplifies the principle that "[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *Id.* at 416. We, therefore, sustain the Examiner's rejection of claim 7.

For dependent claims 11–14, 16–20, and 24, Appellant contends the Examiner fails to provide reasons for combining the functionality of the various references. Appeal Br. 33–39. Appellant's arguments are conclusory and contradicted by the record, as the Examiner did, in fact, articulate rationales for combining the various references. *See* Final Act. 19–34. We, therefore, also sustain the Examiner's rejection of claims 11–14, 16–20, and 24.

CONCLUSION

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 2, 4, 6, 8–10, 15, 21–23, 25, 26	103	Esplin, Agarwal, Block	1, 2, 4, 6, 8–10, 15, 21–23, 25, 26	
3, 7, 11–14, 16–20, 24	103	Esplin, Agarwal, Block, various other references (listed above)	3, 7, 11–14, 16–20, 24	
Overall Outcome			1–4, 6–26	

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED