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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* ALEXANDER FAABORG, GABRIEL AARON COHEN, and  
AUSTIN ROBISON

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Appeal 2015-007735  
Application 14/244,514  
Technology Center 2100

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Before JUSTIN BUSCH, JENNIFER L. McKEOWN, and  
JOHN P. PINKERTON, *Administrative Patent Judges*.

PINKERTON, *Administrative Patent Judge*

DECISION ON APPEAL

Appellants<sup>1</sup> appeal under 35 U.S.C. § 134(a) from the Examiner's  
Final Rejection of claims 1–22. We have jurisdiction under 35 U.S.C.  
§ 6(b).

We affirm.

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<sup>1</sup> Appellants identify Google Inc. as the real party in interest. App. Br. 3.

## STATEMENT OF THE CASE

### *Introduction*

Appellants' disclosed invention generally relates to "techniques by which a computing device determines, based on at least one physiological parameter, a user's reaction to information associated with a notification and accordingly controls, based at least in part on the at least one physiological parameter, at least one notification configuration setting." Spec. ¶ 13.<sup>2</sup>

Appellants' Specification states that a "physiological parameter may include, for example, a heart rate of the user or a galvanic skin response (GSR) of the user." *Id.* ¶ 14.

Claims 1, 3, and 5 are representative and reproduced below (with the disputed limitations *emphasized*):

1. A method comprising:

outputting information associated with a notification, wherein the notification is associated with a notification attribute;

determining, by a computing device, that a user has perceived the information associated with the notification;

*receiving, by the computing device, an indication of at least one physiological parameter representative of a reaction of the user to the information associated with the notification;*  
and

responsive to receiving the indication of the at least one physiological parameter representative of the reaction of the user to the information associated with the notification,

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<sup>2</sup> Our Decision refers to the Final Office Action mailed Dec. 9, 2014 ("Final Act."); Appellants' Appeal Brief filed Apr. 2, 2015 ("App. Br.") and Reply Brief filed Aug. 21, 2015 ("Reply Br."); the Examiner's Answer mailed June 29, 2015 ("Ans."); and the original Specification filed Apr. 3, 2014 ("Spec.").

controlling, by the computing device, at least one notification configuration setting related to outputting information associated with other notifications associated with the notification attribute.

3. The method of claim 2, wherein *determining that the display device is within the field of view of the user comprises detecting an orientation of the display device using at least one of a gyroscope or an accelerometer.*

5. The method of claim 1, wherein *the at least one physiological parameter comprises at least one of a galvanic skin response of the user or a heart rate of the user.*

#### *Rejections on Appeal*

Claims 1–3, 5, 6, 8–11, 13, 14, 16–20, and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Denise (US 8,131,848 B1; issued Mar. 6, 2012) and Rahman et al. (US 2013/0198694 A1; published Aug. 1, 2013) (“Rahman”). Final Act. 3–12.

Claims 4 and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Denise, Rahman, and Logan et al. (US 2011/0084807 A1; published Apr. 14, 2011). Final Act. 12–13.

Claims 7, 15, and 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Denise, Rahman, and Winkler (US 2014/0141816 A1; published May 22, 2014). Final Act. 13–15.

#### ANALYSIS

We have reviewed the Examiner’s rejections in light of Appellants’ arguments in the Briefs and are not persuaded the Examiner has erred. Unless otherwise indicated, we adopt as our own the findings and reasons set forth by the Examiner in the Final Office Action from which this appeal is taken (Final Act. 2–15) and in the Examiner’s Answer (Ans. 2–13), and we

concur with the conclusions reached by the Examiner. For emphasis, we consider and highlight specific arguments as presented in the Briefs.

*Rejection of Claim 1<sup>3</sup> under § 103(a)*

Appellants contend that Denise in view of Rahman fails to teach or suggest “receiving, by the computing device, an indication of at least one *physiological parameter representative of a reaction of the user to the information associated with the notification,*” as recited in claim 1. App. Br. 3–9; Reply Br. 5–8. Appellants argue Denise does not disclose this limitation of claim 1 and “Rahman also does not disclose this subject matter.” App. Br. 7. According to Appellants, by relying on Rahman as teaching a “physiological parameter,” the Examiner fails to consider claim 1 as a whole. Reply Br. 6–7. Appellants also argue that, although their analysis of Rahman is consistent with the Examiner’s assertion that “Rahman discloses using physiological data 622 (ie, claimed *physiological parameters*) in order to generate a recommendation about the type of notification to generate based on the state of the user,” Rahman does not disclose or suggest “*at least one physiological parameter representative of a reaction of the user to the information associated with the notification,*” as recited by claim 1. *Id.* at 7. Appellants further argue that “[b]ecause Denise also fails to disclose or suggest the physiological parameter recited by Appellant[s’] claim 1, the Examiner has failed to establish a *prima facie* case of non-patentability of Appellant[s’] claim 1 over Denise in view of Rahman.” *Id.* Appellants also argue a person or ordinary skill in the

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<sup>3</sup> We decide the rejection of claims 1, 2, 6, 8–10, 14, 16–18, 20, and 22, which are rejected under the first-stated ground of rejection, on the basis of representative claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

art would have had no reason to look to Rahman even if attempting to modify Denise. App. Br. 8–9; Reply Br. 7–8.

We are not persuaded by Appellants’ arguments that the Examiner erred. Appellants attack Rahman and Denise individually and fail to address the Examiner’s actual rejection to establish an insufficiency in the combined teachings of the references. “Non-obviousness cannot be established by attacking references individually where the rejection is based upon the teachings of a combination of references.” *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986). The relevant inquiry is whether the claimed subject matter would have been obvious to those of ordinary skill in the art in light of the combined teachings of the references. *See In re Keller*, 642 F.2d 413, 425 (CCPA 1981).

Appellants argue that Rahman does not disclose at least one *physiological parameter representative of a reaction of the user to the information associated with the notification*, but as the Examiner notes, Rahman was not cited as teaching this limitation. *See* Ans. 2. Instead, the Examiner finds that Denise teaches “receiving, by the computing device, an indication of at least one parameter representative of a reaction of the user to the information associated with the notification.” Final Act. 4; Ans. 3 (citing Denise, col. 5, ll. 47–62: “Denise discloses detecting whether or not a user has looked [at] the mobile phone in response to a notification being received.”). The Examiner also finds, “while the disclosure of Denise discloses a *parameter representative of a reaction of the user*, Denise does not expressly disclose that the parameter is a *physiological parameter*.” Ans. 3–4. The Examiner finds, however, that Rahman teaches detecting physiological data (physiological parameters) in response to events for use

in generating an appropriate recommendation or notification to the user based on the physical state of the user. Final Act. 4–5 (citing Rahman ¶¶ 25–30, 58–59, Figs. 3, 6); Ans. 4–5. Appellants have not provided persuasive evidence or reasoning to rebut these findings of the Examiner.<sup>4</sup> Thus, we find a preponderance of the evidence supports the Examiner’s finding that “the combination of Denise in view of Rahman disclose[s] the claimed limitation of *receiving, by the computing device, an indication of at least one physiological parameter representative of a reaction of the user to the information associated with the notification.*” See Ans. 5.

Regarding Appellants’ arguments that a person or ordinary skill in the art would have had no reason to make the modification to Denise proposed by the Examiner or to look to Rahman even if attempting to modify Denise (*see* App. Br. 8–9; Reply Br. 7–8), the Examiner finds as follows:

By applying the detection of physiological responses to event inputs (as taught by Rahman) to the notification system of Denise, the notifications ultimately delivered to a user are even more in tune with the user’s mood. The combination results in the user being less annoyed by notifications received from a mobile device by monitoring a physiological reaction to a notification. Therefore it would have been obvious to one of ordinary skill in the art at the time of filing to modify the method

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<sup>4</sup> Regarding Appellants’ argument that the Examiner fails to consider claim 1 as whole by relying on Rahman as teaching a “physiological parameter,” we note this argument was raised for the first time in the Reply Brief. Because this argument is raised by Appellants for the first time in the Reply Brief not in response to a shift in the Examiner’s position or without otherwise showing good cause, it is waived. *See* 37 C.F.R. § 41.41(b)(2) (2012); *see also Ex parte Borden*, 93 USPQ2d 1473, 1474 (BPAI 2010) (informative). Assuming *arguendo* the argument was timely raised, we do not find it persuasive because, for the reasons discussed *supra*, the Examiner finds the combined teachings of Denise and Rahman teach or suggest all of the features and limitations of the disputed limitation of claim 1.

of Denise to include the teachings of Rahman because it provides for the purpose of delivering a notification to a user that is based on a user's state of mind as determined by a physiological response to other notifications.

Ans. 6.

Regarding these arguments, the Examiner also finds:

The examiner respectfully disagrees and submits that one of ordinary skill would have considered the Rahman reference if consulting Denise as they are both in the same field of endeavor as delivering notifications to a user. For example, see the disclosure concerning notifications, alerts, ringers and volumes in Denise (*e.g.*, Abstract; column 1, lines 45-61; column 5, lines 22-45; column 7, lines 27-31; column 16, line 61 - column 17, line 11) and notifications, vibration alerts, and audible alerts in Rahman (*e.g.*, paragraphs 25, 31, 33, 38, 39, 51, 59, 63).

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In fact, the combination as proposed by the examiner benefits as the delivery of notifications to a user is less likely to annoy the user (one of the principle requirements of Denise) by employing the techniques of monitoring a person's physiological responses to notifications (as taught by Rahman). The notifications delivered by the combination are even *less likely* to annoy a user based on the fact that the physiological state of the user can be factored into the notification delivery and decision making process. In this way, one of ordinary skill would have found it obvious to modify the method of Denise to include the physiological data gathering of Rahman in order to build a better notification delivery method.

*Id.* at 7.

For the reasons stated by the Examiner, we agree with these findings.

Accordingly, we are not persuaded the Examiner erred in (1) finding the combined teachings of Denise and Rahman teach or suggest the disputed

limitation of claim 1 and (2) concluding that the combined teachings of Denise and Rahman render the subject matter of claim 1 obvious under 35 U.S.C. § 103(a). Thus, we sustain the Examiner's rejection of claim 1, as well as independent claims 9 and 17 and dependent claims 2, 6, 8, 10, 14, 16, 18, 20, and 22, all of which are argued together with claim 1. *See* App. Br. 5–11.

*Rejection of Claim 3<sup>5</sup> under § 103(a)*

Appellants argue that, when considered in context, the portion of Denise cited by the Examiner, column 21, lines 36–45, does not teach or suggest “determining that the display device is within the field of view of the user comprises detecting an orientation of the display device using at least one of a gyroscope or an accelerometer,” as recited in claim 3. App. Br. 11–12. The Examiner finds as follows:

For example, column 21, lines 36-45 discloses that “system 500 may include a gyroscope and/or an accelerometer that senses movement and/or orientation of the electronic device.” Furthermore, the “when the system 500 detects movement and/or a change in orientation of the electronic device when the alert is being provided, the system 500 determines that the user perceived receipt of the electronic communication.” That is, the passage discloses that the system 500 uses a “gyroscope and/or an accelerometer” (ie, claimed *using at least one of a gyroscope or an accelerometer*) in order to “[determine] that the user perceived receipt of the electronic communication.” The system 500 is able to determine when the user perceives receipt of the electronic communication by “detect[ing] movement and/or a change in orientation of the electronic device when the alert is being provided” (ie, claimed *detecting an orientation of the display device*).

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<sup>5</sup> We decide the rejection of claims 3 and 11, which are rejected under the first-stated ground of rejection, on the basis of representative claim 3. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Ans. 9.

For the reasons stated by the Examiner, we are not persuaded by Appellants' arguments and, instead, agree with the Examiner that column 21, lines 36–45, of Denise teach or suggest “determining that the display device is within the field of view of the user comprises detecting an orientation of the display device using at least one of a gyroscope or an accelerometer,” as recited in claim 3. Thus, we sustain the Examiner's rejection of claim 3, as well as claim 11, which Appellants argue for the same reasons as claim 3. *See App. Br. 11–14.*

*Rejection of Claim 5<sup>6</sup> under § 103(a)*

Regarding claim 5, Appellants argue as follows:

[E]ven if Rahman discloses, “As an example, temperature, heart rate, respiration, galvanic skin response (i.e., skin conductance response), muscle stiffness/fatigue, and other types of conditions or parameters may be measured using sensor 212,” as alleged by the Examiner, this still does not disclose or suggest “receiving, by the computing device, an indication of *at least one physiological parameter representative of a reaction of the user to the information associated with the notification,*” “wherein the at least one physiological parameter comprises at least one of a galvanic skin response of the user or a heart rate of the user,” as recited by claim 5.

App. Br. 14.

The Examiner finds, and we agree, paragraph 37 of Rahman teaches “**galvanic skin response (i.e., skin conductance response)** . . . may be measured using sensor 212.” Ans. 10. The Examiner also finds, and we

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<sup>6</sup> We decide the rejection of claims 5, 13, and 19, which are rejected under the first-stated ground of rejection, on the basis of representative claim 5. *See 37 C.F.R. § 41.37(c)(1)(iv).*

agree, “the combination of Denise in view of Rahman (as discussed with respect to claim 1) and the citation of the galvanic skin response measurement in paragraph 37 of Rahman are enough to disclose the invention as in claim 5.” *Id.* Thus, we sustain the Examiner’s rejection of claim 5, as well as claims 13 and 19, which Appellants argue for the same reasons as claim 5. App. Br. 15–19.

*Rejection of Claims 4 and 12 under § 103(a)*

Appellants note claim 4 depends from independent claim 1 and argue claim 4 “is patentable for at least the reasons claim 1 is patentable.” App.Br. 18. Appellants also note claim 12 depends from independent claim 9 and argue claim 12 “is patentable for at least the reasons claim 9 is patentable.” *Id.* We are not persuaded by Appellants’ arguments because, for the reasons discussed *supra* regarding claim 1, claim 1, as well as claim 9, are not patentable over the combination of Denise and Rahman. Thus, we sustain the Examiner’s rejection of claims 4 and 12.

*Rejection of Claims 7, 15, and 21 under § 103(a)*

Appellants note claims 7, 15, and 21 depend from independent claims 1, 9, and 17, respectively, and argue they are patentable for at least the reasons claims 1, 9, and 17 are patentable. App. Br. 19. We are not persuaded by Appellants’ arguments because, for the reasons discussed *supra* regarding claim 1, claims 1, 9, and 17 are not patentable over the combination of Denise and Rahman. Thus, we sustain the Examiner’s rejection of claims 7, 15, and 21.

DECISION

We affirm the Examiner’s rejections of claims 1–22 under 35 U.S.C. § 103(a).

Appeal 2015-007735  
Application 14/244,514

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

AFFIRMED