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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte PHILIP A. ECKHOFF, WILLIAM GATES,
PETER L. HAGELSTEIN, RODERICK A. HYDE,
MURIEL Y. ISHIKAWA, JORDIN T. KARE, ROBERT LANGER,
ERIC C. LEUTHARDT, EREZ LIEBERMAN, NATHAN P. MYHRVOID,
MICHAEL SCHNALL-LEVIN, CLARENCE T. TEGREENE, and
LOWELL L. WOOD, JR.

Appeal 2015-004913¹
Application 12/655,194
Technology Center 2600

Before JEAN R. HOMERE, DEBRA K. STEPHENS, and
JEFFREY S. SMITH, *Administrative Patent Judges*.

HOMERE, *Administrative Patent Judge*.

DECISION ON APPEAL
STATEMENT OF THE CASE

Appellants seek our review under 35 U.S.C. § 134(a) of the Examiner's final rejection of claims 1, 6, 8, 10, 17, 22, 26, 34, 41, 50–52, 97, 102, 104, 106, 111, 112, 117–124, 126, 127, 130, 131, 135, 137, 139, 140, 142, 146, 147, 168, 169, 172, 173, and 181, which constitute all of the

¹ Appellants identify the real party in interest as Searete LLC. App. Br. 5.

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claims pending in this appeal. Claims 2–5, 7, 9, 11–16, 18–21, 23–25, 27–33, 35–40, 42–49, 53–96, 98–101, 103, 105, 107–110, 113–116, 125, 128, 129, 132–134, 136, 138, 141, 143–145, 148–167, 170, 171, 174–180, and 182–191. App’x. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

Appellants’ Invention

Appellants’ invention is directed to a facial recognition method and system for displaying on a first display device (56) selected content (e.g., advertisement for merchandise) to an individual approaching a kiosk (76) based on one or more identified characteristics (including facial expression orientation of a part of the body, posture/stance) of the individual. Spec. 1:20–25, *Id.* at 55:18–30, Fig. 1B, 1C. The content may be selected based on an action of the individual, such as a gaze orientation, a gesture an audio/vocal sound, an orientation of a body part, posture/stance of the individual. *Id.* As the individual moves away from the kiosk, from one region (58) to another (60), the display module ceases to display the content to the individual. *Id.* 55:11–17.

Illustrative Claim

Independent claim 1 is illustrative, and reads as follows:

Claim 1. A method, comprising:
automatically remotely identifying at least one characteristic of an individual via facial recognition;
providing a display for the individual, the display having a content at least partially based on the identified at least one characteristic of the individual; and

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selecting the individual at least partially based on an orientation of the individual.

Prior Art Relied Upon

Goldberg	US 6,819,783 B2	Nov. 16, 2004
Sharma	US 7,987,111 B1	July 26, 2011

Rejection on Appeal

Claims 1, 6, 8, 10, 17, 22, 26, 34, 41, 50–52, 97, 102, 104, 106, 111, 112, 117–124, 126, 127, 130, 131, 135, 137, 139, 140, 142, 146, 147, 168, 169, 172, 173, and 181 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Goldberg and Sharma.

ANALYSIS

We consider Appellants’ arguments *seriatim*, as they are presented in the Appeal Brief, pages 14–54, and the Reply Brief 3–26.² We have reviewed the Examiner’s rejections in light of Appellants’ arguments. We are unpersuaded by Appellants’ contentions.

First, Appellants argue the proposed combination of Goldberg and Sharma does not teach or suggest selecting an individual based on an

² Rather than reiterate the arguments of Appellants and the Examiner, we refer to the Appeal Brief (filed October 1, 2014), the Reply Brief (filed March 27, 2015) and the Answer (mailed January 30, 2015) for their respective details. We have considered in this Decision only those arguments Appellants actually raised in the Briefs. Any other arguments Appellants could have made but chose not to make in the Briefs are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(iv) (2013).

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orientation of the individual, as recited in claim 1. App. Br. 16–19, Reply Br. 4–8. In particular, Appellants agree Sharma discloses a face-based or body-based classification wherein a frontal detection method monitors the orientation of the user’s face to classify the user. According to Appellants, such a classification bears no relevance to the selection of an individual based on the orientation thereof. *Id.* at 17–18 (citing Sharma 15:56–16:24). Further, Appellants argue although Sharma discusses using an individual’s body pose relating to a body detection problem, Sharma does not use body pose as a parameter for selecting an individual. App. Br. 19 (citing Sharma 15:66–16:13). These arguments are not persuasive.

Sharma discloses a demographic-based retail space characterization (DBR) that characterizes retail space based on a capturing device’s demographics measurement of people in a physical space. Abstr. In particular, the DBR uses a footfall position estimation along with a face detection and classification module to perform face/body parts detection, and person tracking based on the captured visual information of an individual coming within the ROI of the camera view. Sharma 16:14–29. The face can be detected based on the facial orientation of the individual. *Id.* at 18:8–11. Thus, Sharma’s disclosure of the DBR performing a face analysis of an individual that comes within view of the camera teaches selecting the individual based on the orientation thereof (i.e., coming within view of the camera). We therefore agree with the Examiner that Sharma’s footfall position analysis of the individual teaches performing facial recognition based on the individual’s detected orientation. Ans. 3–4.

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Appellants further argue that the Examiner has not provided sufficient rationale for the proposed combination. App. Br. 22. In particular, Appellants submit that the proposed rationale for “improve[ing] the overall detection accuracy of the user for the image management system” is not supported by any factual evidence. App. Br. 22–23. Consequently, Appellants argue the proposed combination is predicated by impermissible hindsight, and is thereby improper. *Id.* These arguments are not persuasive.

The U.S. Supreme Court has held “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398, 416 (2007). The Court further instructs that:

Often, it will be necessary for a court to look to interrelated teachings of multiple patents; . . . and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.

Id. at 418.

The Court also instructs that:

[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”. . . [H]owever, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can

take account of the inferences and creative steps that a person of ordinary skill in the art would employ.

Id. (citation omitted). Additionally, the Court instructs that “if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.” *Id.* at 417.

This precedent is controlling here, and the application of the cited legal principles to the facts of this appeal provides us with the necessary guidance in affirming this obviousness rejection. First, as noted by the Examiner, Goldberg is relied upon to teach a facial recognition system that displays to an individual content detected based on an identified characteristic of the individual. Final Act. 2 (citing Goldberg 10:53–67, Fig. 2). Further, as discussed above, Sharma is relied upon to teach selecting an individual based on an orientation of the individual. *Id.* at 3 (citing Sharma 15:56–16:24). At the time of invention, incorporating Sharma’s teaching into Goldberg’s disclosure would have been an obvious endeavor within the purview of the ordinarily skilled artisan as the proposed combination would have predictably resulted in a facial recognition system for identifying shopping tendencies of individuals in a retail store to thereby customize and distribute matching media content thereto. Sharma 1:34–38. Thus, we agree with the Examiner that the proposed combination of Goldberg and Sharma is supported by a preponderance of the evidence, and the ensuing conclusion of obviousness is consistent with controlling authorities.

We find the ordinarily skilled artisan, being a creative individual, would have been able to fit the cited teachings of Goldberg and Sharma together like pieces of a puzzle to predictably result in the facial recognition system noted above. Further, although it may be necessary for an Examiner to identify a reason for modifying the familiar elements obtained from the prior art in establishing a prima facie case of obviousness, the identification of such a reason is not a *sine qua non* requirement. So long as the Examiner provides an articulated reasoning with some rational underpinning to substantiate the obviousness rejection, such a conclusion is proper. In this case, the afore-cited rationale provided by the Examiner is more than just a mere conclusory statement. In our view, such a statement suffices as an articulated reason with a rational underpinning to support the proffered combination. As noted above, the case law allows the Examiner to look to the state of the prior art, including the knowledge of the ordinarily skilled artisan, to arrive at such a reason for combining the known elements of the prior art. Consequently, the Examiner's reliance upon widely available knowledge to arrive at an articulated reason with a rational underpinning to support the proffered combination is proper. Ans. 5–6. It follows, Appellants have not shown error in the Examiner's rejection of claim 1.

Regarding the rejection of claims 6, 8, 10, 17, 22, 26, 34, 41, 50–52, 97, 102, 104, 106, 111, 112, 117–124, 126, 127, 130, 131, 135, 137, 139, 140, 142, 146, 147, 168, 169, 172, 173, and 181, to the extent Appellants have either not presented separate patentability arguments or have reiterated

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substantially the same arguments as those previously discussed for patentability of claim 1 above, those claims fall therewith. *See* 37 C.F.R. § 41.37(c)(1)(vii). Further, to the extent Appellants have raised additional arguments for patentability of these claims, we find that the Examiner has rebutted in the Answer each and every one of those arguments by a preponderance of the evidence. Ans. 6–17, Final Act. 3–21. We adopt the Examiner’s findings and underlying reasoning, which we incorporate herein by reference. Because Appellants have failed to persuasively rebut the Examiner’s findings regarding the rejections of claims 6, 8, 10, 17, 22, 26, 34, 41, 50–52, 97, 102, 104, 106, 111, 112, 117–124, 126, 127, 130, 131, 135, 137, 139, 140, 142, 146, 147, 168, 169, 172, 173, and 181, Appellants have failed to show error in the Examiner’s rejection of these claims.

DECISION

We affirm the Examiner’s rejection under 35 U.S.C. § 103(a) of claims 1, 6, 8, 10, 17, 22, 26, 34, 41, 50–52, 97, 102, 104, 106, 111, 112, 117–124, 126, 127, 130, 131, 135, 137, 139, 140, 142, 146, 147, 168, 169, 172, 173, and 181.

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