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Row 2: 27562, 7590, 01/31/2019, NIXON & VANDERHYE, P.C., 901 NORTH GLEBE ROAD, 11TH FLOOR, ARLINGTON, VA 22203, EXAMINER DU, HAIXIA
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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* MUNETAKA TSUDA, AKIHIRO UMEHARA,  
YUI IIDA, MASAYUKI OKADA, and HAYURU SOMA

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Appeal 2018-005845  
Application 14/745,974  
Technology Center 2600

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Before JUSTIN BUSCH, LINZY T. McCARTNEY, and  
JOHN P. PINKERTON, *Administrative Patent Judges*.

McCARTNEY, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants seek review under 35 U.S.C. § 134 of the Examiner's final rejection of claims 1–4, 6–18, and 20–24. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

## BACKGROUND

The present patent application “relates to a technique for generating an avatar corresponding to a subject of a captured image.” Specification 1, filed June 22, 2015. Claims 1 and 14–18 are independent. Claim 1 illustrates the claimed subject matter:

1. A non-transitory storage medium storing a program for causing a computer to execute a process, the process comprising:
  - causing an image capture device to capture a video of a subject;
  - generating plural avatars based on one image, from plural images constituting the video captured by the image capture device, the plural images corresponding respectively to different image capture timings, and each of the plural avatars representing a subject shown in at least the one image; and
  - causing a display device to display the generated plural avatars and enable selection of at least one of the plural avatars.

Appeal Brief 27, filed December 15, 2017 (“App. Br.”).

## REJECTIONS

| Claims                    | Basis | References                                |
|---------------------------|-------|---|
| 1, 2, 6, 10–18, and 20–23 | § 103 | Du <sup>1</sup> and Kim ’989 <sup>2</sup> |
| 3                         | § 103 | Du, Kim ’989, and Makofsky <sup>3</sup>   |
| 4                         | § 103 | Du, Kim ’989, and Li <sup>4</sup>         |

<sup>1</sup> Du et al. (US 2014/0218371 A1; Aug. 7, 2014).

<sup>2</sup> Kim et al. (US 2014/0129989 A1; May 8, 2014). Appellants and the Examiner refer to this reference as “Kim.”

<sup>3</sup> Makofsky et al. (US 2014/0229850 A1; Aug. 14, 2014).

<sup>4</sup> Li et al. (US 2015/0325029 A1; Nov. 12, 2015).

| Claims  | Basis | References                                    |
|---------|-------|---|
| 7 and 8 | § 103 | Du, Kim '989, and Kim '219 <sup>5</sup>       |
| 9       | § 103 | Du, Kim '989, Kim '219, and Gava <sup>6</sup> |
| 24      | § 103 | Du, Kim '989, and Owano <sup>7</sup>          |

## DISCUSSION

Claim 1 recites “generating plural avatars based on one image, from plural images constituting the video captured by the image capture device.” App. Br. 27. Appellants contend the Examiner erroneously concluded it would have been obvious to combine the teachings of Du and Kim '989 to arrive at this limitation. *See* App. Br. 13–16. Appellants assert that Du animates an avatar in real time based on facial features of a user extracted from a video image, while Kim '989 generates “avatar candidate images” resembling a target face and allows users to repeatedly select from the images to produce an avatar. App. Br. 13–14 (citing Du Fig. 2; Kim '989 Fig. 3); Reply Brief 2–3, filed April 23, 2018 (citing Du ¶ 19) (“Reply Br.”). Appellants argue it would have been unnecessary and detrimental to replace Du’s video image with Kim '989’s avatar candidate images because the avatar candidate images merely *resemble* a target face. App. Br. 15. Appellants also contend that modifying Du in this way “would render Du

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<sup>5</sup> Kim et al. (US 2011/0122219 A1; May 26, 2011).

<sup>6</sup> Gava et al. (US 2014/0043424 A1; Feb. 13, 2014).

<sup>7</sup> Nancy Owano, *Intel Brings Out the Avatar in You with New App*, TechXplore.com (June 20, 2014), <https://techxplore.com/news/2014-06-intel-avatar-app.html>.

unsatisfactory for its intended purpose of animating a single avatar to mimic the [person's] expression.” Reply Br. 5; *see also* App. Br. 16.

We find Appellants’ arguments persuasive. The Examiner concluded it would have been obvious to combine the methods of Du and Kim ’989 to arrive at the disputed limitation because doing so would “provide a natural avatar . . . without a separate analysis or re-analysis process.” Final Office Action 8, mailed August 24, 2017 (“Final Act.”). This reasoning does not sufficiently explain why one of ordinary skill in the art would have replaced Du’s video image of a person with Kim ’989’s avatar candidate images that resemble a target face. As argued by Appellants, Du relies on a video image of a person to animate an avatar, *see* Du ¶ 14, and it is unclear how replacing that image with multiple avatar candidate images that merely resemble a target face would “provide a natural avatar.”

Moreover, as asserted by Appellants, the purpose of Du’s invention is to animate an avatar in real time based on a user’s facial or head movements. *See, e.g.*, Du ¶ 11 (“The technologies described herein allow avatars to be animated in real time based on a user’s facial or head movements.”). We agree with Appellants that the Examiner’s combination of Du and Kim ’989 would make Du unsuitable for animating an avatar in real-time. As discussed above, Kim ’989’s method involves a user repeatedly selecting avatar candidate images to eventually generate an avatar. *See* Kim ’989 ¶¶ 42–53, Fig. 3. Incorporating Kim ’989’s process of user selection into Du’s animation method would undermine the real-time aspect of Du’s method.

For the above reasons, we do not sustain the Examiner’s rejection of claim 1 and its dependent claims. Because the Examiner’s rejections of

independent claims 14–18 suffer from similar deficiencies, we also do not sustain these rejections.

CONCLUSION

| <b>Claims Rejected</b>    | <b>Basis</b> | <b>References</b>                | <b>Affirmed</b> | <b>Reversed</b>           |
|---------------------------|--------------|----------------------------------|-----------------|---------------------------|
| 1, 2, 6, 10–18, and 20–23 | § 103        | Du and Kim '989                  |                 | 1, 2, 6, 10–18, and 20–23 |
| 3                         | § 103        | Du, Kim '989, and Makofsky       |                 | 3                         |
| 4                         | § 103        | Du, Kim '989, and Li             |                 | 4                         |
| 7 and 8                   | § 103        | Du, Kim '989, and Kim '219       |                 | 7 and 8                   |
| 9                         | § 103        | Du, Kim '989, Kim '219, and Gava |                 | 9                         |
| 24                        | § 103        | Du, Kim '989, and Owano          |                 | 24                        |
| <b>Summary</b>            |              |                                  |                 | 1–4, 6–18, and 20–24      |

REVERSED