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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte CHIAO-FE SHU, ARUN HAMPAPUR, ZUOXUAN LU, YING-LI TIAN, LISA MARIE BROWN, and ANDREW WILLIAM SENIOR

Appeal 2016-001056
Application 11/455,251
Technology Center 2400

Before STEPHEN C. SIU, JOHNNY A. KUMAR, and
JOHN D. HAMANN, *Administrative Patent Judges*.

SIU, *Administrative Patent Judge*

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 8 and 21–26. We have jurisdiction under 35 U.S.C. § 6(b).

The disclosed invention relates generally to smart surveillance. Spec ¶ 2. Independent claim 8 reads as follows:

8. A surveillance system, comprising:
a plurality of cameras configured to monitor an environment;
a plurality of analytic engines associated with each camera,
the plurality of analytic engines employing recognition and

motion detection technologies to analyze input from the cameras to determine whether an event has occurred in a respective technology in accordance with defined event criteria, the motion detection technologies include at least one of: behavior analysis, license plate recognition, a face recognition, a badge reader and ground radar; and

a unifying data model configured to analyze timelines associated with a plurality of different technologies and to cross correlate events on the timelines to define an integrated event which collectively considers data from the correlated events;

a schema manager configured to incorporate new analytical technologies into the surveillance system and cross correlate events from the new analytical technologies with events from existing technologies in the surveillance system;

the system including: a system data model which captures a specification of a monitoring system, a user data model which models users, privileges and user functionality, and an event data model which captures events that occur in a monitored space.

The Examiner rejects claims 8 and 21–26 under 35 U.S.C. § 103(a) as unpatentable over Hampapur (US 2005/0012817 A1, published January 20, 2005) and Arun Hampapur, et al., “The IBM Smart Surveillance System,” IEEE 2004 (“Hampapur 2”).

ISSUE

Did the Examiner err in rejecting claims 8 and 21–26?

ANALYSIS

Claim 8 recites a surveillance system comprising cameras that employ “recognition and motion detection technologies to analyze . . . whether an event has occurred in a respective technology,” analyzing “timelines associated with a plurality of different technologies,” cross correlating “events on the timelines to define an integrated event,” incorporating “new analytical technologies into the surveillance system and cross correlat[ing] events from the new analytical technologies with events from existing technologies in the surveillance system.” The Examiner finds that the combination of Hampapur and Hampapur 2 teaches or suggests these claim features. *See, e.g.*, Ans. 3 (finding Hampapur discloses “analytical technologies,” as recited in claim 8). We agree with the Examiner.

For example, Hampapur discloses “a system and method for selectively monitoring movements of objects” (¶ 22) that includes recognition (e.g., a static camera – ¶¶ 35, 38) and motion detection (e.g., pan-tilt-zoom cameras – ¶¶ 14, 35, 38) to determine whether an event has occurred (e.g., “zoom in on targets moving across the monitored space” – ¶ 35) and incorporating new analytical technologies (e.g., various technologies disclosed throughout the Hampapur reference including “microphones,” “infrared or other type sensors” (Hampapur ¶ 23), “background subtraction,” “correlation,” “minimization of the sum of absolute pixel differences,” “color similarity” (Hampapur ¶ 52), correlating

tracks in order of depth, resolving occlusions using an “explanation map” (Hampapur ¶ 53), or 3D tracker using “wide baseline stereo” (Hampapur ¶ 55), to name a few).

Appellants argue Hampapur 2 discloses a “database” but fails to teach or suggest “analytical technology” because a “database” “does not imply an ‘analysis’ of any sort.” We are not persuaded by Appellants’ argument for at least the reasons set forth by the Examiner. *See, e.g.*, Ans. 3–5. For example, claim 8 recites “analytical technologies” but does not recite “database.” For at least this reason we are not persuaded by Appellants’ argument. In addition, Appellants do not explain a sufficient difference between any of the numerous “analytical technologies” disclosed by Hampapur (e.g., “microphones,” “infrared or other type sensors,” “background subtraction,” “correlation,” “minimization of the sum of absolute pixel differences,” “color similarity,” correlating tracks in order of depth, resolving occlusions using an “explanation map,” or 3D tracker using “wide baseline stereo”) and “analytical technologies,” as recited in claim 8. In all cases, such “technologies” are incorporated (with corresponding events – e.g., specific movement of an object – cross correlated) into a surveillance system.

Appellants also argue that Hampapur 2 fails to disclose or suggest a “new” database (or “analytical technology”) “to an existing system.” App. Br. 11. We are not persuaded by Appellants’ argument for at least the reasons set forth by the Examiner. *See, e.g.*, Final Act. 3; Ans. 4–5. For

example, Appellants do not explain a sufficient difference between the “new” analytical technology, as recited in claim 8, for example, and any of the technologies disclosed by Hampapur as previously discussed.

Appellants argue that Hampapur 2 discloses “[t]he mere presence of two functional components in a system [that work together]” but fails to teach or suggest “*events* from respective technologies that are cross correlated.” App. Br. 11. We are not persuaded by Appellants’ argument for at least the reasons set forth by the Examiner. *See, e.g.*, Final Act. 3.

For example, as previously discussed, both Hampapur and Hampapur 2 disclose tracking movements of an object. Appellants do not sufficiently differentiate tracking (and cross correlating) movements of an object over time and tracking and cross-correlating “events.” In both cases, “events” (or movements of an object) are tracked and cross-correlated (i.e., monitored over time).

Claim 23 recites adding a new type of sensor into the surveillance system. Appellants argue that the Examiner finds Hampapur fails to teach or suggest “incorporating new technologies and adding a new type of sensor into a surveillance system” and “fails to show the addition of new technologies at all.” App. Br. 13. We are not persuaded by Appellants’ argument for at least the reasons set forth by the Examiner. *See, e.g.*, Ans. 5. For example, as previously discussed, Hampapur discloses the use of various “technologies” including “directional microphones,” “infrared sensors,” and “other type[s of] sensors” (Hampapur ¶ 23), to name a few. Appellants do

not point out substantive differences between any of the “technologies” or “sensors” disclosed by Hampapur (as indicated above) and the claimed “technologies” or “sensors.”

Appellants argue that Hampapur fails to disclose or suggest an event browser configured to depict a user region of interest, an icon representing an object of interest, and a motion trajectory taken by the object that intersects the user region of interest, as recited in claim 24. App. Br. 14–15. We are not persuaded by Appellants’ arguments for at least the reasons set forth by the Examiner. Ans. 5–6.

For example, Hampapur discloses a “monitored space” (i.e., depicting a “user region of interest”), images of “targets moving across the monitored space” (i.e., an icon representing an object of interest), and “detect[ing] and track[ing] all objects moving in the . . . fields of views” (i.e., motion trajectory taken by the object in the “region of interest” or field of view in the monitored space). *See, e.g.*, Hampapur ¶¶ 35, 38, 39.

Appellants do not provide additional arguments in support of claims 21, 22, 25 and 26. The Examiner did not err in rejecting claims 8 and 21–26.

SUMMARY

We affirm the Examiner’s rejection of claims 8 and 21–26 under 35 U.S.C. § 103(a) as unpatentable over Hampapur and Hampapur 2.

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Application 11/455,251

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