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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte TOMMY ARNGREN, JOAKIM SODERBERG, and
MARIKA STALNACKE

Appeal 2015-006859¹
Application 13/408,448
Technology Center 2100

Before ALLEN R. MacDONALD, JOHN P. PINKERTON, and
GARTH D. BAER, *Administrative Patent Judges*.

BAER, *Administrative Patent Judge*.

DECISION ON APPEAL

¹ Appellants identify Telefonaktiebolaget LM Ericsson as the real party in interest. Appeal Br. 2.

STATEMENT OF THE CASE

This is a decision on appeal, under 35 U.S.C. § 134(a), from the Examiner's Final Rejection of claims 1, 3, and 5–27, which are all the pending claims.² Final Act. 4, 23. Claims 2 and 4 have been cancelled. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

BACKGROUND

A. The Invention

Appellants' invention is directed to “[a] method, medium, and apparatus . . . for indexing multimedia content by a computer.” Abstract. Claim 1 is representative and reproduced below, with emphasis added to the disputed element:

1. A method for indexing multimedia content, the method comprising:

segmenting the multimedia content, by a computer, into a plurality of segments;

identifying, by the computer, for each segment, one or more features present in the segment, wherein the features are of respective media types;

identifying, by the computer, for each identified feature in each segment, one or more respective keywords associated the identified feature; and

determining, by the computer, for each identified keyword associated with an identified feature in a given segment, a respective relevance of the keyword to the given segment, wherein the respective relevance is dependent on a

² Claim 5 was also objected to because claim 5 is dependent on claim 4, which has been cancelled. This objection is not before us.

weight associated with the respective media type of the identified feature.

Appeal Br. 15. (Claims App.).

B. The Rejections on Appeal

The Examiner rejects claims 1, 3, and 6–27 under 35 U.S.C. § 102(b) as anticipated by Nevenka (US 2003/0108334 A1; publ. June 12, 2003).

Final Act. 4.³

The Examiner rejects claim 5 under 35 U.S.C. § 103(a) as unpatentable over Nevenka, in view of Jin (US 2012/0158713 A1; publ. June 21, 2012). Final Act. 23.

ANALYSIS

Appellants argue Nevenka fails to teach or suggest “wherein the respective relevance is dependent on a weight associated with the respective media type of the identified feature” as recited in claim 1.⁴ *See* Appeal Br. 8. As argued by Appellants, even assuming *arguendo* that a conditional probability distribution associated with a feature by the Bayesian

³ Although the header of the anticipation rejection indicated that claim 5 was also rejected, the body of the rejection did not reference claim 5. *See* Final Act. 4–22. Thus, we treat the inclusion of claim 5 in the header of the rejection as a typographical error.

⁴ Appellants further argue Nevenka fails to teach or suggest “determining by the computer, for each identified keyword associated with an identified feature in a given segment, a respective relevance of the keyword to the given segment,” as recited in claim 1. *See* Appeal Br. 6–8. Appellants also separately dispute the rejection of claims 23 and 24. *See* Appeal Br. 11–13; *see also* Reply Br. 3–5. We do not reach these arguments because the identified issue is dispositive of the appeal.

probabilistic analysis teaches the “relevance” of claim 1, Nevenka still fails to teach or suggest that the conditional probability distribution is dependent on a weight associated with a respective media type. See Appeal Br. 8–10 (citing Nevenka ¶¶ 83, 84, 88, Fig. 3); see also Reply Br. 2–3.

Figure 3 of Nevenka is reproduced below.

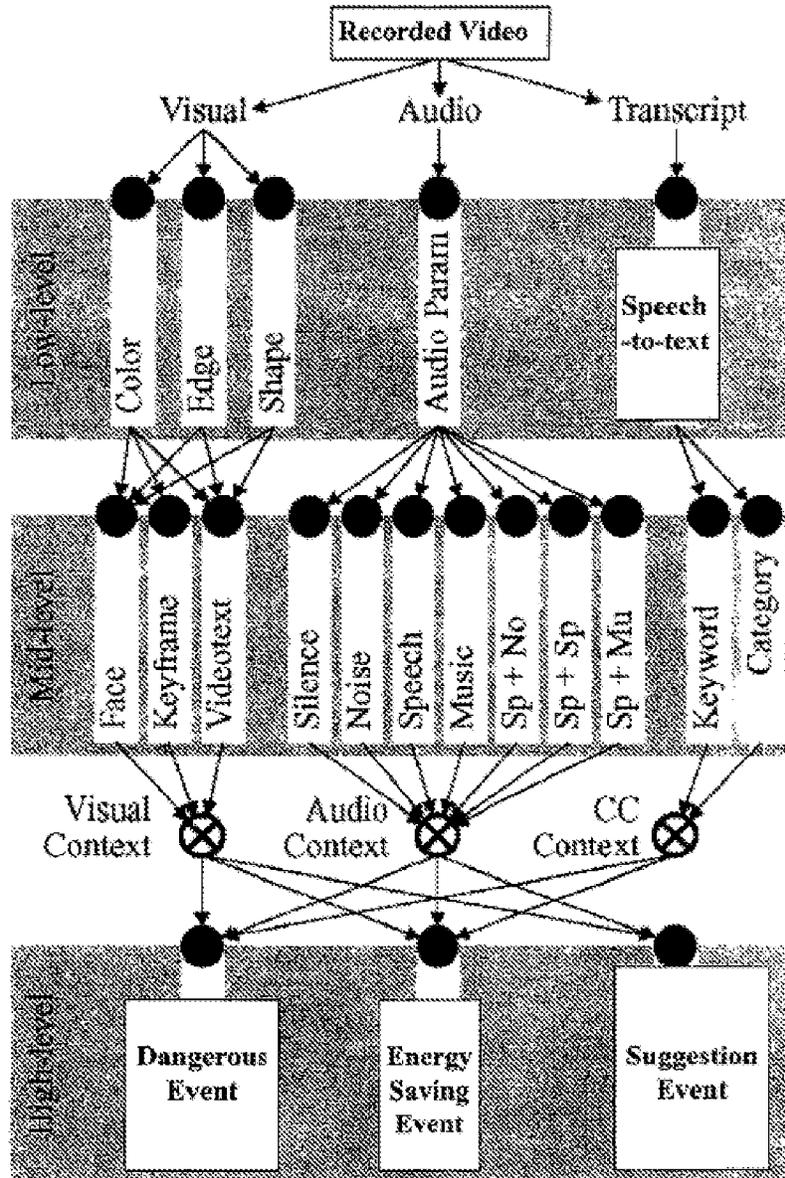


Figure 3 depicts a directed acyclical graph (“DAG”) of a Bayesian network that extracts and organizes features of content streams into three consecutive

layers: low-level layer A, mid-level layer B, and high-level layer C. Low-level layer A includes low-level features (such as signal-processing parameters), mid-level layer B includes mid-level features (such as visual, audio, and transcript features), and high-level layer C includes high-level features (such as segment categorizations). *See* Nevenka ¶ 65. Respective nodes within the DAG represent the low-level features, mid-level features, and high-level features, and links describe a direct causal relationship between the nodes, where a strength of the links is defined via conditional probability distributions (“CPDs”). *See* Nevenka ¶ 83.

We agree with Appellants that Nevenka fails to teach or suggest “wherein the respective relevance is dependent on a weight associated with the respective media type of the identified feature,” as recited in claim 1, and thus, we are persuaded that the Examiner erred. More specifically, we agree with Appellants that Nevenka fails to teach or suggest that a CPD assigned to a link that associates a feature and a categorization is dependent on a weight associated with a media type of the feature. *See* Appeal Br. 9–10 (citing Nevenka ¶ 83, Fig. 3); *see also* Reply Br. 3. We disagree with the Examiner’s conclusion that simply because Nevenka teaches a Bayesian probability graph that is graphically directed from a media type (e.g., “Visual”) to a feature (e.g., “Face,” “Keyframe,” or “Videotext”), and subsequently to a categorization (e.g., “Dangerous Event”), Nevenka also teaches the CPD associated with the link between the feature and the categorization is dependent on a weight associated with the media type. *See* Ans. 7–8 (citing Nevenka, Fig. 3). Thus, we conclude the Examiner failed to show that Nevenka teaches or suggests all the claim elements of claim 1.

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We further conclude that the Examiner failed to show Jin cures the aforementioned deficiency of Nevenka.

Accordingly, we do not sustain the Examiner's rejection of independent claim 1. We also do not sustain the Examiner's rejection of independent claims 12 or 18, which recite substantially similar limitations as independent claim 1, or dependent claims 3, 5–11, 13–17, and 19–27.

DECISION

We reverse the Examiner's rejection of claims 1, 3, and 6–27 under 35 U.S.C. § 102(b). We also reverse the Examiner's rejection of claim 5 under 35 U.S.C. § 103(a).

REVERSED