

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WILLIAM KRESS BODIN, MICHAEL JOHN BURKHART,
DANIEL G. EISENHAUER, DANIEL MARK SCHUMACHER, and
THOMAS J. WATSON

Appeal 2008-0081
Application 10/607,461
Technology Center 2100

Decided: May 19, 2008

Before JOSEPH L. DIXON, HOWARD B. BLANKENSHIP, and
THU A. DANG, *Administrative Patent Judges*.

BLANKENSHIP, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1-24, which are all the claims in the application. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

Claim 1 is illustrative.

1. A method for administering devices, the method comprising:
 - creating a user metric vector comprising a plurality of disparate user metrics;
 - selecting a generic metric space comprising a plurality of generic metric ranges;
 - determining whether the user metric vector is outside the generic metric space,
 - if the user metric vector is outside the generic metric space, identifying an action; and
 - executing the identified action.

The Examiner relies on the following references as evidence of unpatentability.

Mihael Ankerst et al., *Visual Classification: An Interactive Approach to Decision Tree Construction*, Institute for Computer Science, University of Munich, 392-396 (1999).

Robert W. Frischholz et al., *BioID: A Multimodal Biometric Identification System*, Dialog Communication Systems AC, 64-68 (Feb. 2000).

Giorgio Giacinto et al., *A Theoretical Framework for Dynamic Classifier Selection*, Dept. of Electrical and Electronic Eng., University of Cagliari, 8-11 (2000).

Erdem Basci et al., *Reinforcement Learning and Dynamic Optimization*, Journal of Economic and Social Research 2 (1), 39-57 (2000).

Ross Beveridge et al., *The CSU Face Identification Evaluation System User's Guide: Version 5.0*, Computer Science Department Colorado State University, 1-29 (May 1, 2003).

Claims 1, 6, 7, 9, 14, 15, 17, 22, and 23 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Frischholz.

Claims 2, 10, and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Frischholz and Beveridge.

Claims 3, 11, and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Frischholz and Giacinto.

Claims 4, 12, and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Frischholz and Ankerst.

Claims 5, 8, 13, 16, 21, and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Frischholz and Basci.

The Examiner applies Frischholz against instant claim 1 in a rejection for anticipation that is set forth at pages 8 and 9 of the Answer. The Examiner finds that the reference describes the claimed “creating a user metric vector comprising a plurality of disparate user metrics” at page 64 of the reference, in view of the multimodal identification system that uses the features of face, voice, and lip movement. The Examiner also finds that Frischholz describes “selecting a generic metric space comprising a plurality of generic metric ranges” at page 65, in view of the face extractor basing its comparison on the modified Hausdorff distance. The Examiner further finds the reference describes “determining whether the user metric vector is outside the generic metric space” at page 67, in view of the strategy of classifying two of the three biometric features with respect to threshold values. The Examiner also maps the steps of “if the user metric vector is outside the generic metric space, identifying an action; and executing the identified action” to the reference’s description on page 67 of accepting or

rejecting identification, such as for access to an ATM (automated teller machine).

Frischholz, at page 65, teaches using “Hausdorff” distance for face location -- i.e., to detect the location of a face in an arbitrary image. The system uses a model-based algorithm that matches a binary model of a typical human face (Fig. 2(c)) to a binarized, edge-extracted version of the video image (Fig. 2(b)). Face boundaries are detected, after which eye location is determined with an image model and the Hausdorff distance. Locating the eye positions “allows all further processing to take place.” The further processing is for the face recognition, lip movements, and voice recognition used in the identification process (pages 65-66). Lip movement, face classification, and voice recognition for identification may be developed and further refined by a machine training process (pages 66-67).

If we assume that Frischholz’s teachings with respect to face (and eye) location using the Hausdorff distance correspond to “selecting a generic metric space comprising a plurality of generic metric ranges,” consistent with the rejection, the next steps that include “determining whether the user metric vector is outside the generic metric space” do not follow. In the reference, the action of accepting or rejecting identification does not take into account the preliminary step of face location, which does no more than determine the location of a face (and eyes) in an image. Frischholz determines identification based on the biometric features of the person who is seeking access -- according to face and voice recognition, in addition to the person’s lip movement when speaking. The person’s facial features may properly be considered part of the “user metric vector.” However, there is

no determination of whether the facial features reside “outside the generic metric space,” because the “generic metric space,” according to the rejection, relates to the preliminary step of determining face position in the image.

In other words, there is no comparison of facial features to any component or result of the face location algorithm. The face location algorithm detects the location of a face in an arbitrary image, matching an extracted version of the image to a binary model of a “typical” human face. There is nothing in the “generic metric space,” in the reference, that relates to the particular facial, voice, and lip movement features that are considered in granting or denying access. There is thus no step of determining whether the user metric vector is outside the generic metric space.

We therefore agree with Appellants that Frischholz does not provide sufficient support for the Examiner’s finding of anticipation with respect to claim 1. Because each of the other independent claims (9 and 17) contains the same or similar limitations to those not shown to be anticipated in claim 1, and the additional references as applied in the § 103(a) rejections against the dependent claims do not remedy the deficiencies in the rejection of the independent claims, we cannot sustain the rejection of any claim on appeal.

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CONCLUSION

The rejection of claims 1-24 is reversed.

REVERSED

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