

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte STEVEN J. HARRINGTON
and LISA S. PURVIS

Appeal 2006-2722
Application 10/209,626
Technology Center 2100

Decided: April 10, 2007

Before KENNETH W. HAIRSTON, JOSEPH F. RUGGIERO,
and ALLEN R. MACDONALD, *Administrative Patent Judges*.

RUGGIERO, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from a Final Rejection of claim 1, the only claim remaining in the application. Claims 2-6 have been canceled. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

Claim 1 stands finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Marriott in view of Simon.

Rather than reiterate the arguments of Appellants and the Examiner, reference is made to the Briefs¹ and Answer for their respective details.

Only those arguments actually made by Appellants have been considered in this decision. Arguments which Appellants could have made but chose not to make in the Briefs have not been considered (37 C.F.R. § 41.37(c)(1)(vii)).

ISSUE

Under 35 U.S.C § 103(a), has the Examiner established a prima facie case of obviousness based on the combination of Marriott and Simon? Specifically, does the combination of Marriott and Simon teach or suggest the determination of an inferred intent vector, by a matrix multiplication applied to a vector of value properties, for each variable document of a set of variable documents as a function of a calculated set of value properties?

FINDINGS OF FACT

Appellants have invented a system for fitness evaluation of an automatically generated set of variable data documents in which a creator's desire is reflected in a set of relative weights applied to an intent vector. For

¹ The Appeal Brief was filed October 14, 2005. In response to the Examiner's Answer mailed April 11, 2006, a Reply Brief was filed May 25, 2006 which was acknowledged and entered by the Examiner as indicated in the communication mailed July 18, 2006.

each candidate document assembly, a set of value-property functions is calculated which take into consideration factors, such as readability and balance, resulting in a good design. An inferred intent vector is then determined for each candidate document assembly as a function of the calculated property function (Specification 9).

Marriott discloses the extension of the Scalar Vector Graphics (SVG) format for document display by applying constraint-based principles to document layout Specification (pg. 496, first par.). The adding of one-way constraints to the SVG format permits a document author to specify how to perform flexible client side adaptation of the document (pg. 506, first full par.). Algorithms for solving one-way constraints using a directed graph in the form of a constraint graph are discussed at page 504, first full paragraph.

Simon discloses the organizing of a plurality of images into a plurality of different page layouts. Each of the different page layouts is analyzed in accordance with different predetermined criteria and the optimum page layout is determined and selected based on the predetermined criteria (par. 0007-0011).

PRINCIPLE OF LAW

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. *See In re Fine*, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the Examiner is expected to make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966). The Examiner must articulate reasons for the Examiner's decision. *In re Lee*, 277 F.3d 1338, 1342, 61 USPQ2d 1430,

1433 (Fed. Cir. 2002). The Examiner cannot simply reach conclusions based on the examiner's own understanding or experience – or on his or her assessment of what would be basic knowledge or common sense. Rather, the Examiner must point to some concrete evidence in the record in support of these findings. *In re Zurko*, 258 F.3d 1379, 1386, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001). Thus the Examiner must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the Examiner's conclusion. These showings by the Examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. *Note In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). If that burden is met, the burden then shifts to the applicant to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. *See Id.*; *In re Hedges*, 783 F.2d 1038, 1040, 228 USPQ 685, 687 (Fed. Cir. 1986); *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and *In re Rinehart*, 531 F.2d 1048, 1051, 189 USPQ 143, 146-147 (CCPA 1976).

ANALYSIS

Appellants' arguments in response to the obviousness rejection of appealed claim 1 assert a failure by the Examiner to establish a prima facie case of obviousness since, even if proper motivation for the proposed combination were established, all of the claimed limitations would not be taught or suggested by the applied prior art references. In particular, Appellants contend (Br. 6; Reply Br. 6-7) that, in contrast to the claimed

invention, neither Marriott nor Simon discloses the determination of an inferred intent vector for each variable data document that is a function of a calculated set of value properties.

Our interpretation of the disclosure of Marriott, relied on by the Examiner as disclosing the claimed inferred intent vector determination, coincides with that of Appellants. We agree with Appellants that, at best, Marriott discloses (page 504) various types of algorithms for solving one-way constraints, the algorithms being formulated as directed graphs in the context of constraint graphs. We find that this disclosure falls well short of teaching or suggesting the claimed determining of an inferred intent vector as a function of a calculated set of value properties, let alone the claimed inferred intent vector determination operation of applying a matrix multiplication to a vector of value properties.

Although the Examiner attempts (Answer 7, 8, and 11) to show a correspondence between the constraint graph described by Marriott and the claimed inferred intent vector determination involving a matrix multiplication applied to a value properties vector, we find the record before us totally devoid of any evidence to support such a conclusion. In particular, the Examiner has produced no evidence which would indicate that the ordinarily skilled artisan would have recognized and appreciated that the function f_x described by Marriott could have been formulated to include a function of matrix multiplication applied to a vector of value properties.

It does not matter how strong the Examiner's convictions are that the claimed invention would have been obvious, or whether we might have an intuitive belief that the claimed invention would have been obvious within

the meaning of 35 U.S.C. § 103. Neither circumstance is a substitute for evidence lacking in the record before us.

We also find to be without merit the Examiner's contention (Answer 12-13) that Appellants have admitted in the Specification that the claimed features of determining an inferred intent vector for a variable data document as a function of a set of calculated value properties use algorithms which exist in the prior art. We agree with Appellants (Br. 7; Reply Br. 9) that the extent of the admissions in the Specification is the application of well known constraint algorithms to a constraint optimization problem after the problem has been modeled according to the inferred intent vector determination features set forth in appealed claim 1.

Accordingly, we are of the opinion that, since the Simon reference does not overcome the deficiencies of Marriott discussed above, the references, even if combined, do not support the obviousness rejection. We, therefore, do not sustain the examiner's obviousness rejection of claim 1.

CONCLUSION

In view of the foregoing, we reverse the Examiner's 35 U.S.C. § 103(a) rejection of appealed claim 1.

REVERSED

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