UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex Parte STEVEN J. HARRINGTON and LISA S. PURVIS

Appeal No. 2006-2952
Application No. 10/209,242

ON BRIEF

Before HAIRSTON, JERRY SMITH and BLANKENSHIP, Administrative Patent Judges.

JERRY SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's rejection of claim 1, which constitutes the only claim pending in this application.

The disclosed invention pertains to a method for evaluating, by generating a fitness measure value, a set of variable data documents generated by an automatic document assembly process. A set of variable data documents is a set of documents having a portion corresponding to a predetermined content and a portion corresponding to a variable content, wherein the predetermined content is the same in each document of the set of variable data documents.

Sole pending claim 1 is reproduced as follows:

1. A method for evaluating, by generating a fitness measure value, a set of variable data documents generated by an automatic document assembly process, a set of variable data documents being a set of documents having a portion corresponding to a predetermined content and a portion corresponding to a variable content, the predetermined content being the same in each document of the set of variable data documents, comprising:

(a) inputting, through an input device, document specifications for a set of variable data documents to be generated, the document specifications being represented as a set of relative weights;

(b) generating, using a processor, an set of electronic variable data documents;

(c) executing, for each electronic variable data document, a set of value-property functions to generate a set of value properties, said set of value-property functions evaluating properties representing a good design;

(d) determining an inferred intent vector for each electronic variable data document as a function of the set of calculated set of value properties, the inferred intent vector is determined by a matrix multiplication applied to a vector of value properties; and

(e) generating a fitness measure value by multiplying components of the inferred intent vector by a corresponding relative weight from the set of relative weights to generate a set of products and summing the set of products.

The examiner relies on the following references:

Simon et al. (Simon)	US 2002/0040375	Apr. 4, 2002 (filed Apr. 3, 2001)

Kim Marriott et al. (Marriott), "Fast and Efficient Client-Side Adaptivity for SVG," International World Wide Web Conference Proceedings of the eleventh international conference on World Wide Web, Honolulu, Hawaii, 496-507 (2002).

Claim 1 stands rejected under 35 U.S.C. § 103(a). As evidence of obviousness, the examiner offers Marriott in view of Simon.

Rather than repeat the arguments of appellants or the examiner, we make reference to the briefs and the answer for the respective details thereof.

OPINION

We have carefully considered the subject matter on appeal, the rejection advanced by the examiner and the evidence of obviousness relied upon by the examiner as support

for the rejection. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellants' arguments set forth in the briefs along with the examiner's rationale in support of the rejection and arguments in rebuttal set forth in the examiner's answer.

It is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in the claims on appeal. Accordingly, we reverse.

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). In particular, the examiner must show that there is a teaching, motivation, or suggestion of a motivation to combine references relied on as evidence of obviousness. Id. at 1343, 61 USPQ2d at 1433-34. 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. However, a suggestion, teaching, or motivation to combine the relevant prior art teachings does not have to be found explicitly in the prior art, as the teaching, motivation, or suggestion may be implicit from the prior art as a whole, rather than expressly stated in the references. The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art. In re Kahn, 441 F.3d 977, 987-88, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006) (citing In re

Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1316-17 (Fed. Cir. 2000)). See also In re Thrift, 298 F.3d 1357, 1363, 63 USPQ2d 2002, 2008 (Fed. Cir. 2002). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. See 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, 1039, 228 USPQ 685, 686 (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, 1052, 189 USPQ 143, 147 (CCPA 1976). 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 brief have not been considered and are deemed to be waived [see 37 CFR § 41.37(c)(1)(vii)(2004)].

The examiner has indicated how the claimed invention is deemed to be rendered obvious by the collective teachings of Marriott and Simon [answer, pages 4-9]. Appellants argue that the examiner's findings with respect to Marriott are incorrect. Specifically, appellants argue that Marriott fails to disclose or suggest that (1) an inferred vector is determined for each variable data document; (2) the inferred vector is a function of the set of calculated set of value properties; and/or (3) the inferred intent vector is determined by a matrix multiplication applied to a vector of value properties. Appellants also note that Simon fails to teach these features. Appellants also contradict an assertion by the examiner that appellants admit in the specification that the determination of an inferred intent vector for each variable data document as a function of the set of calculated set of value properties was well known [brief, pages 4-7].

The examiner responds that appellants' interpretation of Marriott ignores and/or misinterprets the basic mathematical operations and concepts of the reference. The examiner notes that Marriott teaches the determining step of claim 1 because graph functions can be mathematically expressed as matrices with x and y axes, a vector could be mathematically expressed as an array, and the mathematical notation for the function fx represents any function, which could include a function of matrix multiplication

applied to a vector of value properties. The examiner also notes that Marriott teaches constraints, captured as a set of relative weights, which are represented as a vector, a function of the calculated set of value properties. The examiner also reiterates that appellants have admitted in the specification that the invention uses known prior art [answer, pages 9-13].

Appellants respond that although Marriott teaches that a variable x is solved using a function fx, Marriott is void of any teachings or suggestions that the inferred intent vector is the result of a matrix multiplication applied to a vector of value properties. Appellants assert that the portion of Marriott relied on by the examiner is directed to solving one-way constraints and not to the determination of an inferred intent vector for each variable data document which is a function of the set of calculated set of value properties and which is determined by a matrix multiplication applied to the vector of value properties. Appellants also respond that the portion of the specification referred to by the examiner relates to solving a constraint optimization problem which is not the equivalent of determining an inferred intent vector for each variable data document as a function of the set of calculated set of value properties as claimed. Appellants reiterate, therefore, that they have made no admissions that the determination of an inferred intent vector for each variable data document as a function of the set of calculated set of value properties was well known [reply brief, pages 4-6].

We will not sustain the examiner's rejection of claim 1 for essentially the reasons argued by appellants in the briefs. We agree with appellants that the mathematical generalities taught by Marriott fail to teach or suggest the specifics of the determining step of claim 1. The examiner finds that since the generic function fx of Marriott could be any function, then the function fx could be a matrix multiplication applied to an inferred vector as claimed. This finding does not establish a prima facie case of obviousness. The general use of mathematics in Marriott does not suggest to the artisan that the specific relationship set forth in the determining step of claim 1 should be used. This is a situation where the mere finding of a general teaching (fx) does not necessarily support the finding that more specific forms of the function fx are, therefore, also taught.

In summary, we have not sustained the examiner's rejection of claim 1. Therefore, the decision of the examiner rejecting claim 1 is reversed.

REVERSED

KENNETH W. HAIRSTON Administrative Patent Judge	)	
JERRY SMITH Administrative Patent Judge	)	**BOARD OFPATENT APPEALS AND INTERFERENCES**
HOWARD B. BLANKENSHIP Administrative Patent Judge	)	

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