

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**

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

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*Ex parte* JEFFREY M. STIBEL

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Appeal No. 2006-0110  
Application No. 09/419,005

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HEARD: January 12, 2006

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Before KRASS, DIXON, and BARRY, *Administrative Patent Judges*.  
BARRY, *Administrative Patent Judge*.

A patent examiner rejected claims 1-13, 15-19, and 21-24.<sup>1</sup> The appellant appeal therefrom under 35 U.S.C. § 134(a). We reverse.

I. BACKGROUND

The invention at issue on appeal generates queries for searching databases. The growth of the Internet has been phenomenal. Each day thousands of users employ the Internet to communicate and process data. In particular, users value the Internet as

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<sup>1</sup>Although the appellant asserts that "[c]laims 4 and 20 are no longer in the case, having been canceled," (Appeal Br. at 1 (emphasis added)), the examiner explains that, in fact, "[c]laims 14 and 20 have been canceled . . . in the amendment received on 9/24/02 (paper no. 12)." (Examiner's Answer at 3 (emphasis added).)

a research tool for gathering information of interest. (Spec. at 1.) Users typically employ "search engines" to locate such information. Search engines are services that monitor the content of the Internet and build databases of index terms that can be associated with different sites on the Internet. When a user submits a query to a search engine, the index is searched and pages associated with keywords related to the query are returned to the user. (*Id.* at 2.)

Although search engines generally work well, these require a certain facility on the part of the user to return accurate and useful results. Because many users of the Internet are novices, asserts the appellant, conventional search engines fail to provide a large part of the "Internet population" with a helpful tool for navigating among countless sites. (*Id.*)

Accordingly, the appellant's invention helps a user develop an expanded search query for retrieving information from a database. (*Id.* at 8.) More specifically, a user interface collects one or more key phrases representing a user's initial search query. The user interface analyzes the key phrases to identify at least one meaning that can be associated with the initial query. The invention then processes the initial query and the identified meaning to generate an expanded search request and presents the search request to one or more search engines. (*Id.* at 29.)

A further understanding of the invention can be achieved by reading the following claim.

1. A process for aiding a user in developing a search request, comprising
  - presenting to the user an interface for collecting from the user a keyphrase representative of a user search request,
  - analyzing said user search request to identify at least one meaning associated with said user search request,
  - processing said user search request and said at least one meaning to generate an expanded search request represented as a boolean search strategy, wherein the expanded search request includes related terms not defined or chosen by the user, the related terms being amended to the user search request and the one meaning in a weighted string; and
  - providing said expanded search request to a search engine capable of identifying information associated with said expanded search request.

Claims 1, 5, 6, 10, 11, 15, 17, 18, and 21-24 stand rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 6,256,633 ("Dharap") and U.S. Patent No. 5,926,811 ("Miller"). Claims 2-4, 7-9, 12, 13, and 16 stand rejected under § 103(a) as obvious over Dharap; Miller; and Allen Ginsberg ("Ginsberg"), *A Unified Approach to Automatic Indexing and Information Retrieval*, IEEE Expert, Oct. 1993, pp. 46-56. Claim 19 stands rejected under § 103(a) as obvious over Dharap; Miller; and U.S. Patent No. 6,421,675 ("Ryan").

## II. OPINION

Rather than reiterate the positions of the examiner or the appellant *in toto*, we focus on the main point of contention therebetween. Noting that "Dharap . . . discloses search results [that] are ranked and a relative contribution of each keyword to each specific result is indicated by colored bar (lines 15-18 in col. 4)," (Examiner's Answer at 13), the examiner asserts that "[t]he relative contribution of each keyword to each specific result," (*id.*), "teaches a weight element between keywords." (*Id.*) Admitting that "Dharap does not explicitly disclose a use of weighted terms in detail," (*id.*), however, he makes the following assertions about Miller.

The terms in the constructed list (index) are ranked based on relevance (to the search query), which teaches a weight (lines 25-32 in col. 5, fig. 3, and fig. 4). Since a query expansion term is weighted and included in the search query, this, with broad interpretation, reads on the claim limitation of claim 1. . . .

(*Id.* at 14.) The appellant argues, "None of the cited references discloses weighted expanded queries. In particular, all of the queries disclosed in Dharap and Miller are totally unweighted." (Appeal Br. at 10.)

In addressing the point of contention, the Board conducts a two-step analysis. First, we construe the independent claims at issue to determine their scope. Second, we determine whether the construed claims would have been obvious.

## 1. CLAIM CONSTRUCTION

"Analysis begins with a key legal question — *what is the invention claimed?*" *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1567, 1 USPQ2d 1593, 1597 (Fed. Cir. 1987). In answering the question "[t]he Patent and Trademark Office (PTO) must consider all claim limitations when determining patentability of an invention over the prior art." *In re Lowry*, 32 F.3d 1579, 1582, 32 USPQ2d 1031, 1034 (Fed. Cir. 1994) (citing *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 403-04 (Fed. Cir. 1983)).

Here, independent claim 1 recites in pertinent part the following limitations: "the expanded search request includes related terms not defined or chosen by the user, the related terms being amended to the user search request and the one meaning in a weighted string. . . ." Independent claim 15 includes similar limitations. Considering all the limitations, the independent claims require expanding a user's initial search request by adding weighted terms not defined or chosen by the user to the initial request and the meaning of the initial request.

## 2. OBVIOUSNESS DETERMINATION

Having determined what subject matter is being claimed, the next inquiry is whether the subject matter would have been obvious. "In rejecting claims under 35 U.S.C. Section 103, the examiner bears the initial burden of presenting a *prima facie*

case of obviousness." *In re Rijckaert*, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993) (citing *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992)). "A *prima facie* case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art." *In re Bell*, 991 F.2d 781, 783, 26 USPQ2d 1529, 1531 (Fed. Cir. 1993) (quoting *In re Rinehart*, 531 F.2d 1048, 1051, 189 USPQ 143, 147 (CCPA 1976)).

Here, Dharap "relates to a method and system for enabling retrieval of an information item from an information base in an electronic network." Col. 1, ll. 6-8. More specifically, a "user . . . interacting with system 100 for the first time . . . enters a query word through client 104." Col. 3, ll. 42-44. "System 100 has a context generator 108 that generates one or more additional keywords associated with the topic under consideration as given by the user's entry." *Id.* at ll. 46-48. "[T]he keyword and one or more context keywords are entered into the search engine of document base 102." Col. 4, ll. 1-2. The "document base 102 identifies . . . documents that match the combination of the words entered by the user within the context generated by generator 108. The identifiers of these documents are returned to the user, for example in the format used by the PlanetSearch service. . . ." *Id.* at ll. 11-13. According to this format "the relative contribution of each keyword to each specific result is indicated by a

colored bar." *Id.* at ll. 16-18. We are unpersuaded, however, that this format evidences that the context keywords submitted to the search engine are weighted. To the contrary, we find that the format merely shows how the results of a search correspond to the associated keywords.

For its part, Miller "provides a dynamic statistical thesaurus including a collection of records which contain weighted term relationships." Col. 2, ll. 7-9. "A statistical thesaurus is a thesaurus which contains terms that are related to [a] headword by their co-occurrence with the headword in text. This is in contrast to a traditional thesaurus whose terms, synonyms, are related to the headword by meaning." Col. 1, ll. 21-25.

"FIG. 2 illustrates a preferred process for forming a statistical thesaurus." Col. 4, ll. 66-67. "First, source documents are read, the valuable terms and phrases from the documents are extracted, and thesaurus 'records' are written. The thesaurus records are essentially documents having a set of (for example) five groups (or document segments), each group inherently reflecting a ranking of the terms in the group." Col. 5, ll. 1-6.

It is the next step in the process on which the examiner relies. The disclosure of this step follows.

The thesaurus records are then processed to build a statistical thesaurus index and to build compressed records which are optimized for use in later retrieval operations. FIG. 10A illustrates an exemplary indexing scheme in a dictionary for a given collection, showing entries including a term in association with references to a document and a set of "groups" which reflect ranking of terms based on relevance.

*Id.* at ll. 25-32. For our part, we are unpersuaded that ranking the aforementioned terms teaches or would have suggested adding weighted terms not defined or chosen by the user to the user's initial request and the meaning of the initial request.

The examiner does not allege, let alone show, that the addition of Ryan cures the aforementioned deficiency of Dharap and Miller. Absent a teaching or suggestion of expanding a user's initial search request by adding weighted terms not defined or chosen by the user to the initial request and the meaning of the initial request, we are unpersuaded of a *prima facie* case of obviousness. Therefore, we reverse the obviousness rejections of claims 1 and 15 and of claims 2-13, 16-19, and 21-24, which depend therefrom.

### III. CONCLUSION

In summary, the rejections of claims 1-13, 15-19, and 21-24 under § 103(a) are reversed.

REVERSED

ERROL A. KRASS  
Administrative Patent Judge

JOSEPH L. DIXON  
Administrative Patent Judge

LANCE LEONARD BARRY  
Administrative Patent Judge

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