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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ROBERTO J. BAYARDO,
RAJAT JAIN,
RAMAKRISHNAN SRIKANT, and
DIANE L. TANG

Appeal 2013-002384
Application 12/107,381¹
Technology Center 3600

Before HUBERT C. LORIN, PHILIP J. HOFFMANN, and
JAMES A. WORTH, *Administrative Patent Judges*.

LORIN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Roberto J. Bayardo, et al. (Appellants) seek our review under
35 U.S.C. § 134 of the final rejection of claims 1, 6–11, 15, 16 and 19–21.
We have jurisdiction under 35 U.S.C. § 6(b) (2002).

SUMMARY OF DECISION

We AFFIRM.

¹ The Appellants identify Google Inc. as the real party in interest. Br. 1.

THE INVENTION

Claim 1, reproduced below, is illustrative of the subject matter on appeal.

1. A method, comprising:

determining, by data processing apparatus, a baseline performance metric for first online content that was provided in response to previously received search queries, the baseline performance metric for the first online content being determined based on a first number of user interactions with the first online content when provided in response to the received search queries;

determining, by data processing apparatus, a second performance metric for second online content that is selected to be provided based on an expanded query, the expanded query including a search query that was received from a user device and additional terms that were selected based on a query expansion rule, the second performance metric being based on a second number of user interactions with the second online content when provided in response to the expanded query;

determining, by data processing apparatus, that the second performance metric is less than the baseline performance metric;

classifying, by data processing apparatus, the query expansion rule as an invalid query expansion rule based on the second performance metric being less than the baseline performance metric; and

preventing the invalid query expansion rule from being used to select additional online content.

THE REJECTIONS

The Examiner relies upon the following as evidence of unpatentability:

Bem

US 7,647,242 B2

Jan. 12, 2010

Efron, "Bootstrap Methods: Another Look as the Jackknife," 1977. [Efron]

Zoubir et al., "The Bootstrap and its Application in Signal Processing," 1998. [Zoubir]

Dupret et al., "Recommending Better Queries Based on Click-Through Data" 2005. [Dupret]

Caverlee et al., "Distributed Query Sampling: A Quality-Conscious Approach," 2006. [Caverlee]

The following rejections are before us for review:

1. Claims 1, 6–11, 15, 16 and 19–21 are rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter.
2. Claims 1, 6–16 and 19–21 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement.²
3. Claims 1, 6–16, and 19-21 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and

² This rejection on appeal concerns changes to the claims made by an Amendment filed on September 28, 2011. The Answer also includes, as a new ground, a rejection of claims 1, 6–11, 15, 16, and 19–21 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement, that concerns changes to the claims made by an earlier Amendment filed on April 14, 2011. We will address them together.

distinctly claim the subject matter which applicants regards as the invention.³

4. Claim 1 is rejected under 35 U.S.C. §102(b) as being anticipated by Dupret.
5. Claims 1, 9–11, and 19-21 are rejected under 35 U.S.C. §103(a) as being unpatentable over Bem and Dupret.
6. Claims 6, 7, 15, and 16 are rejected under 35 U.S.C. §103(a) as being unpatentable over Bem, Dupret and Zoubir.
7. Claim 8 is rejected under 35 U.S.C. §103(a) as being unpatentable over Bem, Dupret, Zoubir, Efron, and Caverlee.

ISSUES

Did the Examiner err in rejecting claims 1, 6–11, 15, 16, and 19–21 under 35 U.S.C. §101 as being directed to non-statutory subject matter?

Did the Examiner err in rejecting claims 1, 6–16, and 19–21 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement?

Did the Examiner err in rejecting claims 1, 6–16, and 19–21 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to

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Did the Examiner err in rejecting claims 6, 7, 15, and 16 under 35 U.S.C. §103(a) as being unpatentable over Bem, Dupret and Zoubir?

Did the Examiner err in rejecting claim 8 under 35 U.S.C. §103(a) as being unpatentable over Bem, Dupret, Zoubir, Efron, and Caverlee?

FINDINGS OF FACT

We rely on the Examiner's factual findings stated in the Answer. Additional findings of fact may appear in the Analysis below.

ANALYSIS

The rejection of claims 1, 6–11, 15, 16 and 19–21 under 35 U.S.C. §101 as being directed to non-statutory subject matter.

The Appeal Brief contains no argument challenging this rejection. Accordingly it is sustained.

The rejection of claims 1, 6–16, and 19–21 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement.

Regarding the Amendment filed on April 14, 2011,

which involved rewriting almost every word in the claim [Claim 1] However, Examiner was unable to find any support for 'determining, by data processing apparatus, a baseline performance

metric for first online content that was provided in response to previously received search queries"; for example, the idea of "previously received" search queries is nowhere in the Specification, and also, the word "content" is not combined with "provide" or "provided" or "providing" in the sense used in the claim.

Examiner's Answer 24-25.

The Appeal Brief contains no argument challenging the Examiner's position. Accordingly the rejection is sustained for the reasons stated by the Examiner.

Regarding the Amendment filed on September 28, 2011, the Examiner takes the position that the following limitations lack written descriptive support in the Specification:

1. "2nd performance metric [for second online content] being less than baseline performance metric [for first online content] leading to classification of query expansion rule as invalid";
2. "preventing invalid rule from being used to select additional online content"; and,
3. "'performance metric based on a {first, second} number of user interactions'."

Non-Final Rejection⁴ 9.

Compliance with the written description requirement is a question of fact. *Ralston Purina Co. v. Far-Mar-Co, Inc.*, 772 F.2d 1570, 1575 (Fed. Cir. 1985). To satisfy this requirement, the specification must describe the invention "in sufficient detail [so] that one skilled in the art can clearly conclude that the inventor invented the claimed invention as of the filing

⁴ Mailed Oct. 24, 2011.

date sought.” *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997); *see also LizardTech, Inc. v. Earth Res. Mapping, Inc.*, 424 F.3d 1336, 1345 (Fed. Cir. 2005); *Eiselstein v. Frank*, 52 F.3d 1035, 1039 (Fed. Cir. 1995).

As to the second performance metric being less than a baseline performance metric, the Appellants argue that FIGURE 3 and paragraphs 72, 73, and 77 of the Specification provide adequate written descriptive support. *See Br. 5.*

There is no mention of a second performance metric being less than a baseline performance metric in FIGURE 3. Nor do paragraphs 72, 73, and 77. Paragraphs 72 and 73 describe an expansion rule performance based on the performance of a content items and “[t]he number of clicks can be compared to the baseline performance to determine if the content items outperform the baseline performance.” And paragraph 77 describes preventing invalid query expansion rules from being used when they “result in underperforming content items relative to the baseline performance.”

“[T]he specification must contain an equivalent description of the claimed subject matter.” *Lockwood*, 107 F.3d at 1572. “To satisfy this requirement, the [S]pecification must describe the invention in sufficient detail so ‘that one skilled in the art can clearly conclude that the inventor invented the claimed invention as of the filing date sought.’” *In re Alonso*, 545 F.3d 1015, 1019 (Fed. Cir. 2008) (citation omitted.).

The disclosures cited by Appellants describe an expansion rule performance based on a determination that content items outperform a baseline performance and preventing invalid query expansion rules from

being used if the content items underperform. But the claims require more. What is disclosed is not equivalent to what is claimed. According to claim 1, for example, the second performance metric is for second online content selected to be provided based on an expanded query based on a second number of user interactions with the second online content when provided in response to the expanded query. If this particular second performance metric is determined to be less than the baseline performance metric, then the query expansion rule is classified as an invalid query expansion rule and prevented from being used to select additional online content.

It may be obvious from the disclosure in the Specification to determine if the claimed second performance metric is less than a baseline performance metric and, if so, classifying a query expansion rule as an invalid query expansion rule and preventing the query expansion rule from being used to select additional online content as claimed. But, “[o]ne shows that one is ‘in possession’ of the invention by describing the invention, with all its claimed limitations, not that which makes it obvious.” *Lockwood*, 107 F.3d at 1572 (citation omitted).

As to “preventing invalid rule from being used to select additional online content,” we are unpersuaded by the Appellants’ arguments. The Appellants argue that “one of ordinary skill in the art would understand that ‘prevent[ing] an invalid query expansion rule from being used,’ as recited by stage 325 of FIGURE 3 prevents the ‘invalid rule from being used to select additional online content,’ as recited by claim 1” and

one of ordinary skill in the art would understand from this disclosure that “the query expansion rule [is classified] as an invalid query

expansion rule based on the second performance metric being less than the baseline performance metric," and that "the invalid query expansion rule [is prevented] from being used to select additional online content," as recited by claim 1.

Br. 6.

But we can find no disclosure relative stage 325 of FIGURE 3 describing preventing an invalid rule from being used "to select additional online content." According to the Specification, "stage 325 prevents invalid query expansion rules from being used. Invalid query expansion rules identify expanded queries that result in under-performing content items relative to the baseline performance." Para. 77. Based on this disclosure, stage 325 of FIGURE 3 would appear to prevent an invalid rule from being used to select *under-performing content items relative to the baseline performance*, rather than, more broadly, "additional online content." Again, it may be obvious but "[o]ne shows that one is 'in possession' of the invention by describing the invention, with all its claimed limitations, not that which makes it obvious." *Id.* For that reason, the Appellants' argument which focuses on stage 325 of FIGURE 3 as providing adequate written descriptive support is unpersuasive as to error in the rejection.

As to "performance metric based on a {first, second} number of user interactions'," the Appellants argue that the Specification at paragraphs 20 and 21 provide adequate written descriptive support for the claimed "user interactions." Br. 7. We agree. The disclosure of, for example, a user completing an action on a website and clicks are sufficient detail so that one skilled in the art can clearly conclude that the Appellants had possession of using a number of "user interactions" on which a basis for a performance metric as of the filing date sought. Other possibilities that the phrase "user

interactions” would reasonably broadly cover as of the filing date are not apparent.

For the foregoing reasons, the rejection is sustained.

The rejection of claims 1, 6-16, and 19-21 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regards as the invention.

Regarding the Amendment filed on April 14, 2011,

[t]he above difficulty [“unable to find any support”] is compounded by inability to determine the subject of "was provided", i.e. to which "that" refers: grammatically it should be "content", but the subject and verb do not obviously agree, as content may be plural, as suggested by "in response to ... queries" and not clarified by the Specification, which makes numerous uses of "content items" ("topics engine 235 can identify keywords related to the content items, for example, by retrieving text snippets from a web page associated with the content items" "the content items can be a variety of other content (e.g., video, audio, text, news feeds, digital print, and images)") and some of "content item" or "content request" or "content server", wherein "content" is used as an adjective, rather than being used "as a noun. Whether the claim phrase means instead "baseline performance ... that was provided" or "metric ... that was provided" is not clear.

Examiner’s Answer 25.

The Appeal Brief contains no argument challenging the Examiner’s position. Accordingly the rejection is sustained for the reasons stated by the Examiner.

Regarding the Amendment filed on September 28, 2011, the Examiner takes the position that the following limitations render the claims indefinite:

1. “when provided,” and,

2. “bas[ing] the first metric on multiple previously received search queries, and a second metric on only one search query received from a user device and additional terms based on an expansion rule”

Non-Final Action 11.

We disagree with the Examiner’s position for the reasons stated in the Brief. Moreover, the Examiner’s statements give no indication that the claims have been read in light of the Specification. Nor has a claim construction analysis been conducted in an attempt to ascertain the meaning of the claim terms. “If the claims, read in the light of the specification, reasonably apprise those skilled in the art both of the utilization and scope of the invention, and if the language is as precise as the subject matter permits, the courts can demand no more.” *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 258 F.2d 124, 136 (2d Cir. 1958). The questions of scope and the hypothetical possibilities the claims could cover reflects a concern over the breadth of the claims. But “[b]readth is not indefiniteness.” *In re Gardner*, 427 F.2d 786, 788 (CCPA 1970).

The rejection of claim 1 is rejected under 35 U.S.C. §102(b) as being anticipated by Dupret.

We reverse this rejection. The Examiner’s position is difficult to follow. Claim 1 is reproduced and then the reader is directed to “see” large sections of pages 4–6 of Dupret, also reproduced, that apparently “teach[]” all the subject matter that is claimed. Non-Final Action 13–16. It is not clear and the Examiner does explain in any detail where, for example, Dupret describes, expressly or inherently,

classify[ing] a query expansion rule based on the "number of user interactions with second online content" that occur when the second online content is "provided in response to the expanded query" relative to the "number of user interactions with the first online content" that occur when the first online content is "provided in response to the received search queries,"

as claimed as the Appellants have argued. Br. 12.

We observe that a detailed explanation, albeit belated, is provided in the Response to Argument section of the Examiner's Answer. *See* Answer 40–47. Nevertheless, that explanation relies heavily on the Examiner's interpretation of various claim terms. For example, "[t]he 'redefined' query [of Dupret] is the expanded query [of claim 1]." Answer 41. However, the interpretations are not supported by a claim construction analysis that gives the claim terms, like "expanded query," the broadest reasonable interpretation in light of the Specification as they would be interpreted by one of ordinary skill in the art. "[C]laims are to be read in the light [of the specification], not in a vacuum." *In re Dean*, 291 F.2d 947, 951 (CCPA 1961). Anticipation is determined by first construing the claims and then comparing the properly construed claims to the prior art. *In re Cruciferous Sprout Litigation*, 301 F.3d 1343, 1346 (Fed. Cir. 2002)

Futhermore, the Examiner's interpretations lead the Examiner to argue, in effect, that Dupret *inherently* describes what is claimed. For example, after finding that "Dupret teaches consistency of a query and a document," the Examiner reasons that

the consistency of the set of documents returned with the query *causing those documents to be returned (or lack of consistency) might represent the second measure of performance, that consistency having been defined as "based on a second number of user interactions with*

[second] online content provided in response to [multiple submissions of] the query”. ...

Answer 43-44 (emphasis added). Yet “[i]nherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.”

Hansgird v. Kemmer, 102 F.2d 212, 214 (CCPA 1939), *quoted in Continental Can Co. USA v. Monsanto Co.*, 948 F.2d 1264, 1269 (Fed. Cir. 1991).

The rejection is not sustained.

The rejection of claims 1, 9–11, and 19–21 under 35 U.S.C. §103(a) as being unpatentable over Bem and Dupret.

The rejection of claims 6, 7, 15 and 16 under 35 U.S.C. §103(a) as being unpatentable over Bem, Dupret and Zoubir.

The rejection of claim 8 under 35 U.S.C. §103(a) as being unpatentable over Bem, Dupret, Zoubir, Efron, and Caverlee.

We will reverse these rejections for reasons similar to those stated above with respect to the anticipation rejection; that is, the discussion at Non-Final Action 17–20 does not provide any detail as to where, for example, Dupret discloses,

“classifying ... the query expansion rule as invalid based on the second performance metric being less than the baseline performance metric,” where “the baseline performance metric for the first online content [is] determined based on a first number of user interactions with the first online content when provided in response to the received search queries,” and where “the second performance metric [is] based on a second number of user interactions with the second online content when provided in response to the expanded query,”

as claimed as the Appellants have argued. Br. 12.

CONCLUSIONS

The rejection of claims 1, 6–11, 15, 16, and 19–21 under 35 U.S.C. §101 as being directed to non-statutory subject matter is affirmed.

The rejection of claims 1, 6–16, and 19–21 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement is affirmed.

The rejection of claims 1, 6–16, and 19–21 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regards as the invention is reversed.

The rejection of claim 1 is rejected under 35 U.S.C. §102(b) as being anticipated by Dupret is reversed.

The rejection of claims 1, 9–11, and 19–21 under 35 U.S.C. §103(a) as being unpatentable over Bem and Dupret is reversed.

The rejection of claims 6, 7, 15 and 16 under 35 U.S.C. §103(a) as being unpatentable over Bem, Dupret and Zoubir is reversed.

The rejection of claim 8 under 35 U.S.C. §103(a) as being unpatentable over Bem, Dupret, Zoubir, Efron, and Caverlee is reversed.

Appeal 2013-002384
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DECISION

The decision of the Examiner to reject claims 1, 6–11, 15, 16, and 19–21 is affirmed.

AFFIRMED