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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte GODFREY HOBBS

Appeal 2015-005137
Application 13/329,778¹
Technology Center 2100

Before CAROLYN D. THOMAS, HUNG H. BUI, and
JON M. JURGOVAN, *Administrative Patent Judges*.

BUI, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant seeks our review under 35 U.S.C. § 134(a) of the Examiner’s Final Office Action rejecting claims 1–20, which are all claims pending on appeal. App. Br. 2. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.²

¹ According to Appellant, the real party in interest is Business Objects Software Limited. App. Br. 3.

² Our Decision refers to Appellant’s Appeal Brief filed November 18, 2014 (“App. Br.”); Reply Brief filed April 6, 2015 (“Reply Br.”); Examiner’s Answer mailed February 5, 2015 (“Ans.”); Final Office Action mailed March 25, 2014 (“Final Act.”); and original Specification filed December 19, 2011 (“Spec.”).

STATEMENT OF THE CASE

Conventional report generation applications (i.e., software) allow a user to design and generate reports from a wide range of data sources. Spec. ¶ 2. However, semantic errors often occur when referencing data stored at data sources. Spec. ¶ 3. As such, Appellant's invention seeks to provide a notification (e.g., a graphical representation or a digital watermark) to a user, when there is a mismatch associated with data stored at the data source and possibly a semantic error with displayed data. Spec. ¶ 18, 24; Abstract.

Claims 1, 10, and 15 are independent. Claim 10 is illustrative of Appellant's invention, as reproduced below with disputed limitations in italics:

10. A non-transitory, machine-readable medium that stores instructions, which, when performed by a machine, cause the machine to perform operations comprising:

accessing a report that references data stored in a data source separate from the report;

reading, from the report, a profile of metadata associated with referencing the data source, *the metadata comprising a description of a structure of the data source;*

comparing the profile of metadata and a current structure of the data source;

detecting a mismatch between the profile of metadata and the current structure of the data source based on the comparison;

and

adding a notification to a rendering of the report, the notification informing the mismatch associated with the referenced data.

App. Br. 22 (Claims App'x) (emphasis added).

Examiner's Rejections and References

(1) Claims 10–20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lowrance et al. (US 7,809,700 B2, issued Oct. 5, 2010) and Sinha (US 2010/0119288 A1, published May 19, 2011). Ans. 2–8.

(2) Claims 1–9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lowrance, Sinha, and Rinker (US 8,086,635 B1, issued Dec. 27, 2011). Ans. 9–13.

ANALYSIS

§ 103(a) Rejection of Claims 10–20 based on Lowrance and Sinha

In support of the rejection of claim 10, the Examiner finds Lowrance teaches Appellant's claimed "non-transitory, machine-readable medium" that stores instructions, which, when performed by a machine, cause the machine to perform operations comprising:

accessing a report that references data stored in a data source separate from the report [*see* Lowrance 3:52–55];

reading, from the report, a profile of metadata associated with referencing the data source [*see* Lowrance 3:58–59]; [and]

adding a notification to a rendering of the report, the notification informing the mismatch associated with the referenced data [*see* Lowrance 4:31–35].

Final Act. 2–3, 5–6 (citing Lowrance 3:52–55, 3:58–59, 4:31–35).

The Examiner acknowledges Lowrance does not explicitly teach (1) the particular of "metadata," i.e., "the metadata comprising a description of a structure of the data source", and (2) the well-known concept of mismatch detection of database states, i.e., (i) "comparing the profile of metadata and a

current structure of the data source” and (ii) “detecting a mismatch between the profile of metadata and the current structure of the data source based on the comparison” as evidenced from Sinha in order to support the conclusion of obviousness. *Id.* at 3–4 (citing Sinha ¶¶ 8, 33, 35, 37).

Appellant does not dispute the Examiner’s factual findings regarding Lowrance. Nor does Appellant challenge the Examiner’s rationale for combining Lowrance and Sinha. Instead, Appellant only disputes the Examiner’s factual findings regarding Sinha. In particular, Appellant acknowledges Sinha teaches: (1) “a comparison of a first database state to a second database state” (App. Br. 12 (citing Sinha ¶ 33)); and (2) detecting “database schema changes by comparing database states and then add[ing] the database changes to a report” (Reply Br. 6). However, Appellant contends Sinha’s “database state” refers to “actual contents of the database (e.g., the data stored in the database; see, for example, wikipedia.org)” and is not and cannot be equated as Appellant’s claimed “metadata” or “profile of data” that is “data about data.” App. Br. 12–13. In particular, Appellant argues the term “profile of data” as recited in claim 1 cannot be broadly interpreted to encompass Sinha’s “database state.” *Id.* at 13. As such, Appellant argues:

Sinha does not disclose or suggest “comparing *the profile of metadata (read from the report and comprising a description of a structure of the data source)* and a current structure of the data source” and does not disclose “detecting a mismatch between *the profile of metadata* and the current structure of the data source based on the comparison” . . .

Thus, Lowrance and Sinha, alone or in combination, do not disclose or suggest “reading, from the report, a profile of metadata associated with referencing the data source, the

metadata comprising a description of a structure of the data source; comparing the profile of metadata and a current structure of the data source; detecting a mismatch between the profile of metadata and the current structure of the data source based on the comparison”

as recited in Appellant’s claim 10. *Id.*

We are not persuaded by Appellant’s arguments. At the outset, we note that one cannot show nonobviousness by attacking references individually where the rejection is based on combinations of references. *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). “[T]he test of obviousness is what the combined teachings would have suggested to those of ordinary skill in the art.” *Id.* at 425. Both Lowrance and Sinha disclose methods of verifying or providing feedback regarding validity of data referenced in a report. For example, Lowrance teaches a method of verifying the accuracy of data included in a report. *See* Lowrance’s Abstract. Sinha further teaches a method of detecting and applying database schema changes to a report. *See* Sinha ¶ 1; Abstract. Contrary to Appellant’s arguments, Lowrance (not Sinha) is relied upon for disclosing Appellant’s claimed “profile of metadata” in the form of ingredient data that Lowrance describes as “any data related to the generation of a report, such as, for example . . . the query the user ran to obtain or identify information contained in the report, the date and time the query was run, the version level for the contents of any databases accessed, a query statement that generated the report (for example, a structured query language (SQL) statement), a format of the report, and data comprising the report.” *See* Lowrance 4:9–17.

We also note that claim terms are given their broadest reasonable interpretation consistent with the specification. *In re Am. Acad. of Sci. Tech*

Ctr., 367 F.3d 1359, 1369 (Fed. Cir. 2004). Under the broadest reasonable interpretation, claim terms are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). As recognized by Appellant, the term “profile” is defined by Appellant’s Specification as follows:

As used herein, a “profile” refers to a snapshot of the metadata. Examples of metadata include names of database views, names of database tables, names of spreadsheets, names of columns, names of result objects such as measures and dimensions from a semantic layer that overlies the data source, SQL statements, data parameters, localized names for any of these data source elements, and other metadata.

Spec. ¶ 28 (emphasis added).

Based on Appellant’s Specification, the term “profile of metadata” can also be interpreted to encompass Sinha’s “database schema” for several reasons. First, Sinha describes “database schema” as “the structure of the database, such as database table names, database column names, and other items, such as indexes, fields, relationships, and any other items that may be required to define how the data is stored in the database.” Sinha ¶¶ 3, 22. As such, Sinha’s “database schema” can be considered as Appellant’s claimed “metadata” because Sinha’s “database schema” is also data about data stored in a database. Second, Sinha also describes detecting changes in the “database schema” as a result of comparing “snapshots” of the database states, and then applying database schema changes to a report. Sinha ¶¶ 26–31, 33–34, 41. According to Sinha, the database states as described do not refer to “actual contents of the database” as Appellant argue. App. Br. 13. Instead, Sinha’s database states refers to “snapshots” of the “database

schema” that can be considered as Appellant’s claimed “metadata.” Sinha ¶¶ 3, 22, 41. Lastly, Sinha further teaches the use of “metadata” in the context of “metadata description of the data sources” as an alternative to “the logical or physical descriptions used by the data source” so that “common business terms [can be used] in place of [database] table and column names.” Sinha ¶ 72.

In light of Sinha’s teachings, we find Sinha teaches the well-known concept of mismatch detection of database states, i.e., (1) “comparing the profile of metadata and a current structure of the data source” and (2) “detecting a mismatch between the profile of metadata and the current structure of the data source based on the comparison” as recited in Appellant’s claim 10.

In the reply, Appellant argues the distinction between (1) a data source, (2) a structure of the data source, and (3) a description of a structure of the data source, as recited in claim 10. Reply Br. 3. According to Appellant, “the ‘data source’ is distinguishable from ‘a structure of the data source’ and ‘a structure of the data source’ is distinguished from ‘a description of a structure of the data source.’” *Id.* Appellant acknowledges Sinha’s “database schema” may be interpreted as the structure of the database, but argues Sinha’s “database schema” is not and cannot be considered equivalent to a “description” of the schema or a “description” of the structure. *Id.* at 5.

We note these argument are raised for the first time in the Reply Brief without any showing of good cause. In the absence of a showing of good cause by Appellants, these arguments are deemed waived. *See* 37 C.F.R. § 41.37(c)(1)(vii) (2011) (second sentence); *In re Hyatt*, 211 F.3d 1367,

1373 (Fed. Cir. 2000) (noting that an argument not first raised in the brief to the Board is waived on appeal); *Ex parte Nakashima*, 93 USPQ2d 1834, 1837 (BPAI 2010) (informative) (explaining that arguments and evidence not timely presented in the principal Brief, will not be considered when filed in a Reply Brief, absent a showing of good cause explaining why the argument could not have been presented in the Principal Brief); *Ex parte Borden*, 93 USPQ2d 1473, 1477 (BPAI 2010) (informative) (“[p]roperly interpreted, the Rules do not require the Board to take up a belated argument that has not been addressed by the Examiner, absent a showing of good cause.”).

Nevertheless, we disagree with Appellant’s characterization that Sinha’s “database schema” does not include any “description” of the schema or any “description” of the structure. Reply Br. 7. As acknowledged by Appellant, Sinha’s “database schema” is the structure of the database. Reply Br. 5. However, as correctly recognized by the Examiner, the structure of the database as described by Sinha, as contained in the report, is also “metadata” because it describes the database. Ans. 5 (citing Sinha ¶ 33). Thus, Sinha also discloses Appellant’s claimed “metadata comprising a description of the structure of the data source” as recited in claim 10. *Id.* For example, Sinha describes:

[t]he database schema represents the structure of the database, such as database table names, database column names, and other items, such as indexes, fields, relationships, and any other items that may be required to define how the data is stored in the database.

Sinha ¶ 3.

According to Sinha, “changes may [also] include modifications of table names, column names, additions or deletions of tables and columns, and also modifications of data types for columns.” Sinha ¶ 43. Descriptions of these table names and column names are also shown in TABLE 2. Sinha ¶ 44. Sinha’s discussions of the “database schema” are consistent with Appellant’s own description of the “profile of metadata” as including, for example, “names of database views, names of database tables, names of spreadsheets, names of columns” as described in paragraph 28 of Appellant’s Specification.

For the foregoing reasons, Appellant has not demonstrated the Examiner error. Accordingly, we sustain the Examiner’s obviousness rejection of independent claim 10, and similarly independent claim 15 based on Lowrance and Sinha.

With respect to dependent claims 12, 14, 17, and 19, Appellant argues neither Lowrance nor Sinha teaches or suggests the limitations: “wherein the profile includes a referenced database table [or parameter], and wherein the operation of comparing the profile comprises detecting that the referenced database table has been dropped from the data source.” App. Br. 16–17. We are not persuaded by Appellant’s argument. As noted by the Examiner, Lowrance teaches these limitations in the context of generating “ingredient data” that Lowrance describes as “any data related to a report” including “data being dropped from a report.” Final Act. 4 (citing Lowrance 4:9–17); Ans. 5 (citing Lowrance 6:9–17). Accordingly, we also sustain the Examiner’s obviousness rejection of claims 12, 14, 17, and 19.

With respect to dependent claim 16, Appellant argues neither Lowrance nor Sinha discloses “[t]he metadata comprising a description of a

structure of the data source” and, as such, fails to teach or suggest “reading, from the report, a profile of metadata associated with referencing the data source.” App. Br. 19. We disagree for the reasons discussed relative to Sinha’s disclosure of “metadata comprising a description of a structure of the data source” and for additional reasons discussed by the Examiner on page 6 of the Examiner’s Answer.

With respect to the remaining dependent claims 11, 13, 16, 18, and 20, Appellant presents no separate patentability arguments. App. Br. 19–20. For the same reasons discussed, we also sustain the Examiner’s obviousness rejection of claims 11, 13, 16, 18, and 20.

§ 103(a) Rejection of Claims 1–9 based on Lowrance, Sinha, and Rinker

Claim 1 is similar to claim 10 and further recites “adding a digital watermark to a rendering of the report.” In support of the rejection of claim 1, the Examiner further relies on Rinker for teaching the addition of a watermark to a report to support the conclusion of obviousness. Final Act. 10–11 (citing Rinker 18:27–31).

Appellant reiterates the same arguments presented against the rejection of claim 10. App. Br. 14–15. For the same reasons discussed relative to claim 10, we also sustain the Examiner’s obviousness rejection of claim 1 and its dependent claims 4–9, which Appellant does not argue separately.

With respect to dependent claims 2 and 3, Appellant reiterates the same arguments presented against the rejection of claims 12 and 14. App. Br. 15–16. For the same reasons discussed, we also sustain the Examiner’s obviousness rejection of claims 2 and 3.

CONCLUSION

On the record before us, we conclude Appellant has not demonstrated the Examiner erred in rejecting claims 1–20 under 35 U.S.C. § 103(a).

DECISION

As such, we AFFIRM the Examiner’s final rejection of claims 1–20.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED