UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/449,600	08/01/2014	Jorge A. Arroyo	RSW920140080US1	9886

75949 7590 02/26/2020

IBM CORPORATION
C/O: Fabian Vancott
215 South State Street
Suite 1200
Salt Lake City, UT 84111

EXAMINER	
FRUNZI, VICTORIA E.	

ART UNIT	PAPER NUMBER
3688	

NOTIFICATION DATE	DELIVERY MODE
02/26/2020	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents@fabianvancott.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JORGE A. ARROYO, STEPHEN P. KRUGER, PATRICK J. O'SULLIVAN, and LUCIANO SILVA

Appeal 2019-004101
Application 14/449,600
Technology Center 3600

BEFORE RICHARD M. LEBOVITZ, ULRIKE W. JENKS, and JOHN G. NEW, *Administrative Patent Judges*.

LEBOVITZ, *Administrative Patent Judge*.

DECISION ON APPEAL

The Examiner rejected the claims under 35 U.S.C. § 101 as reciting patent ineligible subject matter, under 35 U.S.C. § 102 as anticipated, and under 35 U.S.C. § 103 as obvious. Pursuant to 35 U.S.C. § 134(a), Appellant[1] appeals from the Examiner's decision to reject the claims. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE and set forth new grounds of rejection pursuant to 37 C.F.R. § 41.50(b).

---

[1] We use the word "Appellant" to refer to "applicant" as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as International Business Machines. Appeal Br. 2.

STATEMENT OF THE CASE

The claims stand rejected by the Examiner as follows (Ans. 3–4):

1. Claims 21–27 under 35 U.S.C. § 101 as directed to a judicial exception and thus being patent ineligible.

2. Claims 21 and 24–26 as anticipated under 35 U.S.C. § 102 by Rothermel et al. (US 2006/0143034 A1, June 29, 2006 ("Rothermel").

3. Claims 8–11 and 14–18 under 35 U.S.C. § 103 as obvious in view of Wagner et al. (US 2015/0170163 A1, June 18, 2015) ("Wagner"), Slater et al. (US 2011/0246504 A1, published Oct. 6, 2011) ("Slater"), Taylor et al. (US 2008/0222630 A1, published Sept. 11, 2008) ("Taylor"), and Hui et al. (US 2015/0358303 A1, published Dec. 10, 2015) ("Hui").

4. Claims 12, 13, 19, and 20 under 35 U.S.C. § 103 as obvious in view of Wagner, Slater, Taylor, Hui and Potdar et al. (US 2015/0112755 A1, published Apr. 23, 2015) ("Potdar").

5. Claim 22 under 35 U.S.C. § 103 as obvious in view of Rothermel and Hui.

6. Claim 23 under 35 U.S.C. § 103 as obvious in view of Rothermel and Taylor.

7. Claim 27 under 35 U.S.C. § 103 as obvious in view of Rothermel and Beechuk et al. (US 2014/0282101 A1, published Sept. 18, 2014) ("Beechuk").

REJECTIONS OF CLAIM 21

Claim 21 is reproduced below:

> 21. A system for modifying a number of opportunities in a customer relationship management (CRM) system, the system comprising a computer with a processor, memory and a

> network interface, the computer, with the processor and memory, implementing all of:
>
> an obtaining engine to obtain, from a customer relationship management (CRM) system using the network interface, data for a number of opportunities, each opportunity represented by a record structure in the CRM system that includes a number of fields of metadata;
>
> a comparing engine to compare metadata associated with a first opportunity to a number of archived opportunity templates, each archived opportunity template comprising a recommended action; an analyzing engine to determine which archived opportunity templates match the first opportunity; and
>
> a modifying engine to modify the first opportunity based on the recommended action from an archived opportunity template found to match the first opportunity by the analyzing engine and to allocate resources to the first opportunity in response to the modification of the first resource.

Before a claim can be examined, it must be properly interpreted. Claim 21 comprises an obtaining engine, comparing engine, and modifying engine. The claim does not recite the structure of each engine, but instead claims the engine by the function it performs. Thus, these limitations invoke 35 U.S.C. § 112(f). Each engine performs an action with or on an opportunity. The term "opportunity" is defined in the Specification "as a complex record structure in a CRM system, in which each of the opportunities captures a number of fields of metadata." Spec. ¶ 29.

The "modifying engine" modifies "the first opportunity," which we understand to mean a modification to a record structure, based on the meaning of the term "opportunity" as defined in the Specification. The modifying engine also is "to allocate resources to the first opportunity in response to the modification of the first resource." Because the opportunity is "record structure," we find it confusing how a "resource" can be allocated

to a "record" in a CRM system which is essentially information or data. In addition to this, the claim requires the resource allocation to be "in response to the modification of the first resource." There is no antecedent basis in the claim for "first resource." It is therefore not clear what is the "first resource" that is being referenced in the description of the function of the modifying engine. Furthermore, the only modification previously described in the claim is to the "first opportunity." The phrase "in response to the modification of the first resource" therefore does not have antecedent basis because there is no "modification" of a resource recited in the claim. It is unclear whether a step in the claim is missing as to how the first resource is modified.

For the reasons described above, because we find the claim to lack clarity and to be ambiguous, we cannot ascertain the scope of the claim. For this reason, we find the claim to be indefinite under 35 U.S.C. § 112(b).

Furthermore, because the scope of the claim cannot be ascertained, we are unable to determine whether the claim complies with 35 U.S.C. §§ 101, 102, and 103. Accordingly, we reverse, pro forma, Examiner's obviousness rejection of claim 21 and the claims which depend from it. *See Ex parte Miyazaki*, 89 USPQ2d 1207, 1217–18 (BPAI 2008) (precedential) (prior art rejections of indefinite claims reversed by Board "pro forma" where claim interpretation required resort to "speculative assumptions as to the meaning of the claims"); accord, *In re Steele*, 305 F.2d 859, 862 (CCPA 1962) (it is legal error to analyze claims based on "speculation as to meaning of the terms employed and assumptions as to the scope of such claims").

In an attempt to understand the claim, we reviewed the Specification and could not identify support for the "modifying engine" recited in claim

21 which performs recited listed functions. Claim 21 was added by amendment on February 17, 2017. At this time, Appellant did not disclose written description support for the claim. The claim was amended on May 2, 2017. No support was cited at this time for the amendments to the claim. In the Appeal Brief, paragraph 52 of the Specification is cited for written description support of the modifying engine of claim 21. Appeal Br. 10. However, paragraph 52 does not even recite the term "resource." We therefore conclude that claim 21, as a whole, lacks a written description and is therefore not in compliance with 35 U.S.C. § 112(a). In response, Appellant must show written descriptive support in the Specification for each limitation of claim 21.

For the foregoing reasons, pursuant to 37 C.F.R. § 41.50(b), claim 21, and dependent claims 22–27, are rejected under 35 U.S.C. § 112(a) and 35 U.S.C. § 112(b). These are **new grounds of rejection**.

OBVIOUSNESS REJECTION OF CLAIM 8

Claim 8 is reproduced below:

> 8. A system for modifying a number of opportunities in a customer relationship management (CRM) system, the system comprising a computer with a processor, memory and a network interface, the computer, with the processor and memory, implementing all of:
>
> an obtaining engine, to obtain, from a customer relationship management (CRM) system, data for a number of opportunities, wherein each of the opportunities is represented by a record structure in the CRM system, including a number of fields of metadata;
>
> a comparing engine, to compare the metadata associated with the opportunities with a number of archived opportunity templates to create a comparison that indicates, based on the

templates, whether a corresponding opportunity is to be split into multiple opportunities or merged with another opportunity to reduce a total number of opportunities in the CRM system, each archived opportunity template containing more data than an opportunity from the CRM so as to indicate through the comparison whether a corresponding opportunity is to be split into multiple opportunities or merged with another opportunity to reduce a total number of opportunities in the CRM system; and

a modifying engine, to modify, based on the comparison of the opportunity metadata to the archived opportunity templates, the record structures of the opportunities to create at least one new opportunity thereby automatically updating an opportunity database of the CRM system, wherein the modifying engine, based on the comparison, selectively splits at least one opportunity to create two opportunities including a new opportunity, thereby making the CRM system self-expanding, or selectively merges at least two opportunities into a single new opportunity, thereby making the CRM system self-regulating, including discarding redundant metadata in a merged record for the new opportunity; and

a storing engine to store the at least one new opportunity in the CRM system.

Discussion

The Examiner found that Wagner describes a computer processor and memory comprising the claimed "obtaining engine" and "storing engine." Final Act. 16–17. The Examiner found that Wagner does not described a "comparing engine" and "modifying engine" as recited in the claims, but found that these elements are described in Slater and Taylor, respectively. *Id.* at 17–21. The Examiner explained why it would have been obvious to one of ordinary skill in the art to have modified Wagner with the teachings of Slate and Taylor. *Id.* at 19, 21–22. The Examiner further relied on Hui as

teaching a "modifying engine" and additional aspects of the claim. *Id.* at 22–24.

Appellant contends that Wagner is deficient and that Slater, Taylor, and Hui do not correct the deficiencies of Wagner. Appeal Br. 13–16.

Comparing engine

The claimed "comparing engine" compares "the metadata associated with the opportunities with a number of archived opportunity templates." The comparison is used to determine "whether a corresponding opportunity is to be split into multiple opportunities or merged with another opportunity to reduce a total number of opportunities in the CRM system." The claim further recites that "each archived opportunity template contain[s] more data than an opportunity from the CRM." The Examiner found that the comparing engine is described in Slater. Final Act. 18–19. We thus turn to the disclosure in Slater.

Slater teaches that its system can be a customer relationship management (CRM) system (Slater ¶ 75), the same type of system which is claimed. Slater describes comparing client data in a database "to one or more criteria" (Slater ¶¶ 23, 24, 26). Slater teaches that the client data "may include one or more items of metadata." Slater ¶ 27. Slater also teaches that "comparing the data to the one or more criteria may be performed according to a template" (corresponding to the "archived opportunity template" in claim 8). Slater ¶ 35. Slater further discloses that the template can include weighting factors and algorithms. *Id.* Slater's template therefore contains "more data than an opportunity from the CRM" as recited in claim 8 because it also contains the weighting factors and algorithms. In addition, Slater

does not restrict how much client data is used or how many criteria are in the template. Therefore, the number of criteria in the template is not critical. Appellant has not shown there is an advantage or benefit to having more data in the opportunity template than in the CRM opportunity. *See In re Woodruff*, 919 F.2d 1575, 1578 (Fed. Cir. 1990). Thus, any amount of data in the template would have been obvious to one of ordinary skill in the art. For these reasons, we are not persuaded by Appellant's argument that Slater fails to teach or suggest that requirement in claim 8 that "each archived opportunity template containing more data than an opportunity from the CRM." Appeal Br. 14–15.

Slater teaches that comparison can be performed to determination "deviation" from a predetermined baseline. Slater ¶ 33. Actions are taken based on the comparison. Slater ¶ 36. "In this way, the client may be able to ascertain whether the current configuration of their data is in line with the criteria recommended by the system, administrator, etc." Slater ¶ 36. The comparisons may also be used to make recommendations to the client, for example, "how to adjust or otherwise alter the data associated with the client in order to better comply with the one or more criteria, based on the comparing." Slater ¶ 38. *See also* Slater ¶ 41 ("In another embodiment, the client may be able to adjust one or more settings associated with the data, based on the comparing.")

However, while Slater teaches using the comparisons to make client recommendations, the Examiner found that Slater does not describe splitting opportunities or merging opportunities required by the comparing engine of claim 8. The Examiner found Taylor describes this limitation. Final Office Act. 20–21.

Taylor describes CRM systems. Taylor ¶ 3. The system described by Taylor has an "opportunities module." Taylor ¶ 22. The module can be searched for opportunities. Taylor ¶ 26. Taylor also teaches the managers and users can use the system to look at opportunities. Taylor ¶¶ 35, 39. Taylor teaches that opportunities can be edited and changed. Taylor ¶ 44. Taylor teaches that duplicate records can get introduced into the system and that the system can detect and "remove those duplicate records." Taylor ¶ 46.

Taylor teaches that the system "may permit various different duplicate data record resolutions including, for example, merging extra data, overriding data, a manual merge or rejecting the duplicate." *Id.* "For the merging the extra data, if the record being checked contains data that is not present in the current record, the data is merged into the existing data record." *Id.* Thus, this step described in Taylor involves a comparison of data records and a determination, as in step 2 of claim 8, whether there are duplicate files, and if so merging them to create a new record that has data from both files – which is the same as "to modify … the record structures of the opportunities to create at least one new opportunity." It is a "new opportunity" because it has data from both records.

Appellant argues the comparison performed in Taylor is not against an archived template. Appeal Br. 15. Rather, Appellant argues that the comparison is between records to determine duplicates. *Id.*

First, we shall consult the Specification to determine the meaning of the recited "archived opportunity template." The Specification explains:

> In the specification and appended claims, the term "archived opportunity template" is meant to be understood broadly *as an example of an opportunity that associated with a number of*

> *defined characteristics*. The archived opportunity template may include a recommended action for an opportunity that exhibits displayed in the archived opportunity template. The archived opportunity template may include historic data from other opportunities or may include future goals of an organization. The archived opportunity template *may aid in identifying patterns for an opportunity, predict actions, and aid in assigning resources to newly created opportunities*. For example, the archived opportunity template may recommend a division of an opportunity, taking into consideration such factors as historic opportunity observations and studied opinions as to recommended changes when an opportunity reaches a specific stage.

Spec ¶ 30 (emphasis added).

The records compared in Taylor are from actual customers (Taylor ¶¶ 24, 26), and in contrast to the claimed "archived opportunity template," are not examples for comparison purposes or for "identifying patterns for an opportunity, predict actions, and aid in assigning resources to newly created opportunities" (Spec. ¶ 30). Therefore, Taylor does not use a template to determine whether to merge opportunities as recited in claim 8. Rather, Taylor compare customer records.

While Slater describes templates, the templates, as explained above, are used to perform a comparison to determine whether there is a deviation from a configuration, and if so, to make an adjustment. The Examiner did not provide an adequate reason for using the template to decide whether to merge or split opportunity records as required by claim 8.

Hui was further cited by the Examiner, but Hui does not describe performing comparisons to a template; the only pertinent teaching is merging feeds. Hui ¶¶ 2, 20, 24.

Accordingly, for the reasons discussed above, the obviousness rejection of claim 8 is reversed. Independent claim 14 has the same limitation as claim 1 found to be deficient in Slater, Taylor, and Hui, and is reversed for the same reasons. Dependent claims 9–11 and 15–18 incorporate all the limitations of claims 8 and 14 and are therefore are reversed, as well.

Dependent claims 12, 13, 19, and 20 are further rejected over Potdar. Final Act. 41–42. Potdar is not described by the Examiner to make up for the deficiencies in claims 8 and 14 in Slater, Taylor, and Hui. This rejection is also reversed.

CONCLUSION

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed	New Grounds
21–27	101	Eligibility		21–27	
21, 24–26	102	Rothermel		21, 24–26	
8–11, 14–18	103	Wagner, Slater, Taylor, Hui		8–11, 14–18	
12, 13, 19, 20	103	Wagner, Slater, Taylor, Hui, Potdar		12, 13, 19, 20	
22	103	Rothermel, Hui		22	
23	103	Rothermel, Taylor		23	
27	103	Rothermel, Beechuk		27	
22–27	112(a)	Written description			21–27
22–27	112(b)	Indefinite			21–27
Overall Outcome				8–20	21–27

TIME PERIOD FOR RESPONSE

This decision contains a new ground of rejection pursuant to 37 C.F.R. § 41.50(b). Section 41.50(b) provides "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review." Section 41.50(b) also provides:

> When the Board enters such a non-final decision, the appellant, within two months from the date of the decision, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:
>
> (1) *Reopen prosecution*. Submit an appropriate amendment of the claims so rejected or new Evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the prosecution will be remanded to the examiner. The new ground of rejection is binding upon the examiner unless an amendment or new Evidence not previously of Record is made which, in the opinion of the examiner, overcomes the new ground of rejection designated in the decision. Should the examiner reject the claims, appellant may again appeal to the Board pursuant to this subpart.
>
> (2) *Request rehearing*. Request that the proceeding be reheard under §41.52 by the Board upon the same Record. The request for rehearing must address any new ground of rejection and state with particularity the points believed to have been misapprehended or overlooked in entering the new ground of rejection and also state all other grounds upon which rehearing is sought.

Further guidance on responding to a new ground of rejection can be found in the MPEP § 1214.01.

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). *See* 37 C.F.R. §§ 41.50(f), 41.52(b).

REVERSED; 37 C.F.R. § 41.50(b)