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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/834,038	03/15/2013	Knarig Arabshian	67108-414PUS1;813494US-NP	2692

46368 7590 03/30/2017
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ART UNIT	PAPER NUMBER
2153	

NOTIFICATION DATE	DELIVERY MODE
03/30/2017	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte KNARIG ARABSHIAN and PETER DANIELSEN

Appeal 2016-008074
Application 13/834,038[1]
Technology Center 2100

Before JOSEPH L. DIXON, STEPHEN C. SIU, and JOYCE CRAIG, *Administrative Patent Judges*.

Opinion for the Board filed by Administrative Patent Judge, SIU

Opinion Concurring filed by Administrative Patent Judge, CRAIG

SIU, *Administrative Patent Judge*

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1–20. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

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[1] According to Appellants, the real party in interest is Alcatel-Lucent USA Inc. (Appeal Brief, filed December 3, 2015 ("App. Br.") 1).

The disclosed invention relates generally to devices that provide information regarding database contents. Spec ¶ 4. Independent claim 1 reads as follows:

> 1. A device for providing information regarding database contents, the device comprising:
>
> a data storage; and
>
> a processor associated with the data storage, the processor being configured to:
>
> identify a database including a plurality of members and feature information regarding at least one feature of the members, respectively;
>
> determine at least one categorizing indicator from a source that is external to the database;
>
> determine whether there are any associated indicators in the feature information that correspond to the categorizing indicator;
>
> identify the members of the database having the associated indicators; and
>
> associate the identified members with a category based on the categorizing indicator.

The Examiner rejects claims 1–10 under 35 U.S.C. § 101 as being directed to non-statutory subject matter and claims 1–20 under 35 U.S.C. § 103(a) as unpatentable over Baikov (US 2007/0255720 A1, published November 1, 2007, "Baikov") and Geller et al. (US 2013/0013580 A1, published January 10, 2013, "Geller").

ISSUE

Did the Examiner err in rejecting claims 1–20?

ANALYSIS

35 U.S.C. § 101 – claims 1–10

The Examiner finds that claim 1 recites subject matter that is directed to non-statutory subject matter because the claims recite "a software component," constitute no more than "functional descriptive material per se," and "lack the necessary physical articles or objects to constitute a machine or a manufacture." Final Act. 3. However, the Examiner does not explain sufficiently, much less assert, how a device for performing claimed steps constitutes no more than "functional descriptive material per se" or how the claimed device constitutes, for example, no more than an abstract idea of manipulating data. *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2350 (2014) (citing *Gottschalk v. Benson*, 409 U.S. 63, 67, 71, 72, 93 (1972)). Therefore, we cannot agree with Examiner's findings.

The Examiner erred in rejecting claims 1–10 under 35 U.S.C. § 101.

35 U.S.C. § 103 – claims 1–20

Claim 1 requires identifying a database including a plurality of members and feature information of the members, determining at least one categorizing indicator, and determining whether there are indicators in the feature information that correspond to the categorizing indicator.

The Examiner finds that Baikov discloses the "categorizing indicator," as recited in claim 1. Final Act. 4–6. In particular, the Examiner

states that Baikov discloses an "extension interface [that] is analogous to an indicator of one or more groups of APIs" and a "process of collecting and grouping web service[] functionalities [that] is analogous to a method of categorizing." Ans. 3–4 (citing Baikov ¶¶ 22, 23, 26, 27, 28). Hence, the Examiner equates the "extension interface" of Baikov with the claimed "categorizing indicator."

Claim 1 recites a "categorizing indicator" that is "determine[d]." Claim 1 also recites determining "indicators" that "correspond to the categorizing indicator." Hence, the "categorizing indicator," as recited in claim 1, is required to be "determine[d]" and is required to be "determine[d]" to correspond (or not) to any "indicators in the feature information." Claim 1 does not recite further characteristics of the "categorizing indicator."

As the Examiner indicates, Baikov teaches a database that includes a plurality of members (i.e., a computer system that includes application programming interfaces and web services – Baikov ¶ 7), feature information regarding a member (i.e., information that "relate to web services" and/or "various web services client functionalities" – Baikov ¶¶ 7, 27) and a categorizing indicator determined to be associated with indicators in the feature information (i.e., web services client functionalities are collected and grouped into various groups – Baikov ¶¶ 27, 28) and categorized (i.e., "collected and grouped into groups" and "assigned an extension interface such that each group is represented by" an extension interface – Baikov ¶ 28). Hence, Baikov teaches an "extension interface" that is determined and is further determined to correspond (or not) to desired web services client functionalities (i.e., "indicators in the feature information").

Appellants argue that "a categorizing indicator is useful as a label for a category within an ontology in which database members should be included" and that Baikov supposedly fails to disclose this feature. App. Br. 4. We are not persuaded by Appellants' argument because claim 1 does not recite that a categorizing indicator must be "useful as a label for a category within an ontology in which database members should be included." Even assuming that claim 1 recites this limitation, as previously discussed, Baikov discloses this feature. For example, Baikov teaches an "extension interface" that is useful as a label for a category (of desired web services client functionalities).

Appellants argue that Baikov fails to disclose a "determination whether there are associated indicators corresponding to a categorizing indicator." App. Br. 5. However, Appellants do not explain a meaningful difference between the determination in Baikov that the "extension interface" corresponds to desired web services client functionalities and determining whether there are indicators that correspond to the categorizing indicator, as recited in claim 1. In both cases, a determination is made that an indicator corresponds to another indicator.

In addition, we note that Baikov further confirms that a "categorizing indicator" and a "determin[ation] whether there are any associated indicators . . . correspond[ing] to the categorizing indicator," as recited in claim 1, was known in the art. For example, Baikov discloses that prior to the time of the instant invention, one of skill in the art would have known to "search through an online registry" and "find a listing in the registry for web based access to a service that the user desires to have performed." Baikov ¶ 2. In other words, Baikov teaches that it would have been known in the art to

determine and input a search term (i.e., a "categorizing indicator" that is "determined" by the user) to search through an online registry (i.e., searching information in a "database") and to find a listing in the registry (i.e., finding associated "indicators" and determining that the "indicators" correspond to the search term, or "categorizing indicator").

The Examiner finds that Geller teaches an external source. Final Act. 7 (citing Geller ¶ 101). As the Examiner indicates, Geller discloses searching a database for "the top 1000 male and female first names" in which a "mining program passed the first name Robert to Google and then extracted the last names . . . [which were] checked . . . against . . . the US census database." Geller ¶ 101. In other words, Geller teaches determining an "indicator" from one source and determining an association with indicators in another source. Appellants argue that Geller fails to disclose an "external source" (App. Br. 6) but fail to explain persuasively a meaningful difference between Geller and the claimed "external source."

The Examiner finds that Baikov discloses identifying members of a database and determining whether the indicators correspond to a categorizing indicator but that Baikov does not disclose or suggest that the categorizing indicator is determined from a source external to a database. The Examiner further finds that Geller discloses that one of skill in the art would have known that data may be obtained from a source that is external to a database that is being searched. Final Act. 7. Appellants argue that "there is no reason to make the . . . proposed combination of the *Baikov* and *Geller* references." App. Br. 6. We are not persuaded by Appellants' argument at least for reasons set forth by the Examiner.

For example, we agree with the Examiner that it would have been

obvious to one of ordinary skill in the art to have combined the known process of identifying members of a database and determining whether indicators regarding members of a database correspond to a desired indicator (or "categorizing indicator") (Baikov) and the known process of determining the desired indicator from a source external to the database (Geller) to achieve the predictable result of determining whether an externally derived indicator matches an indicator within a database. We also note that one of skill in the art would have understood that there is a finite number of locations for determining an "indicator" with which to search – namely, either from within the database or external to the database. Given that one of skill in the art is not an automaton, it would have been within the purview of one of skill in the art to have selected from the finite list of (two) possibilities (searching using data that is internal or external to the database) to achieve the predictable result of determining an "indicator" with which to search a database. "The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 416 (2007).

Appellants do not provide additional arguments in support of the other claims subject to appeal. The Examiner did not err in rejecting claims 1–20.

DECISION

We affirm the Examiner's rejection of claims 1–20 under 35 U.S.C. § 103(a) as unpatentable over Baikov and Geller. We reverse the Examiner's rejection of claims 1–10 under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

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

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte KNARIG ARABSHIAN and PETER DANIELSEN

Appeal 2016-008074
Application 13/834,038
Technology Center 2100

Before JOSEPH L. DIXON, STEPHEN C. SIU, and JOYCE CRAIG, *Administrative Patent Judges*.

CRAIG, *Administrative Patent Judge,* CONCURRING

I respectfully concur with the majority's opinion with respect to the Examiner's final rejections of claims 1–10 under 35 U.S.C. § 101 and claims 1–20 under 35 U.S.C. § 103(a). I would also enter a new ground of rejection under 37 C.F.R. § 41.50(b) rejecting claims 1–20 under 35 U.S.C. § 101 because they are drawn to an abstract idea of identifying and categorizing

existing data from a database. I would, therefore, reject claims 1–20 under 35 U.S.C. § 101 as directed to a patent-ineligible abstract idea under *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347 (2014).

Following the two-part *Alice* analysis, claim 1 is first examined to determine if it is directed toward an abstract idea. Claim 1 is directed to associating identified members of a database with a category based on a categorizing indicator. Claim 1 describes a device "for providing information regarding database contents," which is described as the categorization of existing information from a database. Specifically, claim 1 recites a processor configured to "identify a database including a plurality of members and feature information regarding at least one feature of the members, respectively," "determine at least one categorizing indicator from a source that is external to the database," "determine whether there are any associated indicators in the feature information that correspond to the categorizing indicator," "identify the members of the database having the associated indicators," and "associate the identified members with a category based on the categorizing indicator." App. Br. 8 (Claims App'x).

In other words, claim 1 recites a processor that looks up records in a database and categorizes them, the recited "associate the identified members with a category based on the categorizing indicator." The categorized members are generated by searching fields of a database (i.e., the recited "associated indicators in the feature information") using search criteria or an index (i.e., the recited "categorizing indicator"), taking existing records of a database (i.e., "members of the database having the associated indicators"), and organizing this information into a new form. As the patent itself observes, the invention relates to "a device for providing information

regarding database contents." Spec. 1. As our reviewing court recently reiterated, "organizing and accessing records through the creation of an index-searchable database, includes longstanding conduct that existed well before the advent of computers and the Internet," and patent claims have been held ineligible for reciting similar abstract concepts that merely collect, classify, or otherwise filter data. *Intellectual Ventures I LLC v. Erie Indemnity Co.*, Nos. 2016-1128, 2016-1132, 2017 WL 900018, at *7 (Fed. Cir. March 7, 2017). Moreover, the Federal Circuit has held "[w]ithout additional limitations, a process that employs mathematical algorithms to manipulate existing information to generate additional information is not patent eligible." *Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344, 1351 (Fed. Cir. 2014). Thus, claim 1 is directed to an abstract concept of identifying and categorizing data and is, therefore, directed to an abstract idea.

The second part of the Alice analysis requires an examination of the claim elements individually and as a whole to determine whether they provide an "inventive concept" that is enough to transform the claim into something significantly more than the abstract idea itself. *See Alice*, 134 S. Ct. at 2355. With regard to claim 1, in addition to the categorization of identified database members using a generic processor, the claim requires "a data storage," and a processor configured to "identify a database," "determine at least one categorizing indicator," "determine whether there are any associated indicators" in the database "that correspond to the categorizing indicator," and "identify the members of the database having the associated indicators." Taken individually, the remaining limitations recite routine computer functions and amount to no more than the

performance of well-understood, routine, and conventional activities known to the data processing industry. Thus, while the claims limit the idea of categorical data search, retrieval, and categorization to a device with a processor, the claimed computer functionality is merely generic or conventional. Thus, evaluating these claimed elements either individually or as a whole, claim 1 recites no more than routine activities involving generic computer components and conventional computer data processing activities to accomplish the well-known concept of identifying and categorizing data. As such, the remaining limitations are abstract and fail to transform the claim into something sufficiently more than an abstract idea.

Claims 2–10 depend from claim 1. None of the additional recitations in claims 2–10 provides an "inventive concept" that is enough to transform the recitations of claim 1 into something significantly more than an abstract idea. Claim 2 further recites "wherein the feature information comprises a plurality of terms; the categorizing indicator comprises at least one term." Claim 3 further recites "wherein the processor is configured to automatically identify terms used by the source to describe at least one feature of subject matter within a selected category." Claim 4 further recites "wherein the processor is configured to identify the terms from a plurality of sources, respectively; and provide an indication of the source of each identified term." Claim 5 further "wherein the processor is configured to generate an ontology of the database including the category with the associated members." Claim 6 further recites "a plurality of categorizing indicators" and "respective categories based on the respective categorizing indicators," and that the processor is configured to "include the respective categories in the generated ontology, wherein the database members are organized

according to identified categories." Claim 7 further recites that "the database members comprise application programming interfaces," "the associated indicators comprise terms describing at least one feature of the associated application programming interface," and "the categorizing indicators comprise terms from a resource that provides information regarding a selected topic corresponding to a candidate category that would be suitable for at least one of the application programming interfaces." Claim 8 further recites "wherein the processor is configured to identify the database based on user input indicative of a user selection of the database," "select the source based on user input indicative of a user selection of the source external," and "associate a descriptor with the category based on user input indicative of the descriptor." Claim 9 further recites "wherein the processor is configured to determine a rank of the associated indicators based on a selected criteria" and "present the associated indicators in a manner that is indicative of the rank." Claim 10 further recites "wherein the processor is configured to place information in the data storage regarding any of the database members that has been associated with the category" and "provide an indication distinguishing any of the database members that has been associated with the category previously from any of the database members that has not been previously associated with the category."

Independent claim 11 recites limitations similar to those recited in claim 1 but is directed to a method. App. Br. 10 (Claims App'x). Thus, claim 11 is directed to patent-ineligible subject matter for the reasons discussed above for claim 1. Claims 12–19 depend from claim 11 and recite limitations similar to those recited in claims 2–9, discussed above. *Id.* at 10–12. None of the additional recitations in claims 12–19 provides an

"inventive concept" that is enough to transform the recitations of claim 11 into something significantly more than an abstract idea.

Independent claim 20 is similar to claims 1 and 11, but is directed to a "non-transitory computer readable medium containing a plurality of computer-executable instructions." *Id.* at 12. For the reasons discussed above with regard to claim 1, claim 20 is also directed to patent-ineligible subject matter.