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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte GLEN SGAMBATI, ROBERT PERROTTA, and
RICH MAYO

Appeal 2018-002178
Application 10/773,642¹
Technology Center 3600

Before ALLEN R. MacDONALD, JAMES B. ARPIN, and
PHILLIP A. BENNETT, *Administrative Patent Judges*.

BENNETT, *Administrative Patent Judge*.

DECISION ON APPEAL
STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner’s final rejection of claims 1–4, 7, 9, 10, 12, 13, 17–19, and 21–23. Claims 5, 6, 8, 11, 14–16, and 20 are cancelled. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

¹ Appellants’ Brief (“App. Br.”) identifies Early Warning Systems, LLC as the real party in interest. App. Br. 2.

CLAIMED SUBJECT MATTER

The claims are directed to an account-owner verification database.

Claim 1, reproduced below, is representative of the claimed subject matter:

1. A method of populating and using an electronic account-owner verification database, the method comprising:

(a) for each participant institution of a plurality of participant institutions:

receiving, by a computer system, a single electronic file of account-owner data elements linked to a plurality of accounts maintained at the participant institution of the plurality of participant institutions for multiple account owners and subsequently receiving regular updates to the single electronic file from the participant institution, wherein:

each account-owner data element received in the single electronic files correspond to a data element field in the account-owner verification database, and the account-owner data elements provided by each participant institution of the plurality of participant institutions comprises:

an account number, an account type, an account holder name for each account of the plurality of accounts and the account-owner data elements provided by each participant institution are required to have a required set of data element fields for each account of the plurality of accounts;

(b) receiving, by the computer system, non-participant data elements obtained from a plurality of check images corresponding to a plurality of checks, wherein:

the plurality of check images include account-owner data elements linked to accounts maintained at non-participant institutions, the non-participant institutions are not required to provide account-owner data elements for the minimum required set of data element fields;

each non-participant data element corresponds to a data element field in the account-owner verification database, and for a given check of the plurality of checks, non-participant data elements are received corresponding

to: a routing number, an account number, and at least one additional data element;

(c) populating, by the computer system, the data element fields of the electronic account-owner verification database with the account-owner data elements linked to accounts maintained at the participant institutions and the non-participant data elements at the non-participant institutions;

(d) receiving, by the computer system, for verification, from an inquirer:

(i) an account number; and

(ii) multiple data elements corresponding to the account number;

(e) querying, by the computer system, the account-owner verification database for the received account number and for each of the received multiple data elements corresponding to the received account number;

(f) retrieving, by the computer system, a response from the account-owner verification database for each of the received data elements such that multiple responses are retrieved, wherein, for each of the received data elements, a response is retrieved that is indicative of the accuracy of the received data element and excludes customer-specific data, wherein:

the response is positive for the received data element if a data element stored in the data element field corresponding to the received account number matches the received data element, and

the response specifies that information is unavailable for the received data element if there is no data element stored in the data element field corresponding to the received account number; and

(g) providing, by the computer system, the multiple responses to the inquirer.

App. Br. 18–19 (Claims Appendix).

REFERENCES

The references relied upon by the Examiner in rejecting the claims on appeal are:

Weinflash	US 7,383,227 B2	June 3, 2008
Bozeman	US 2002/0052852 A1	May 2, 2002

REJECTIONS

Claims 1–4, 7, 9, 10, 12, 13, 17–19, and 21–23 stand rejected under 35 U.S.C. § 101 as being directed to ineligible subject matter. Final Act. 6–12.

Claims 1–4, 7, 9, 10, 12, 13, 17–19, and 21–23² stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bozeman and Weinflash. Final Act. 12–30.

REJECTION UNDER 35 U.S.C. § 101

Standard for Patent Eligibility

In issues involving subject matter eligibility, our inquiry focuses on whether the claims satisfy the two-step test set forth by the Supreme Court in *Alice Corp. v. CLS Bank Int'l*, 134 S. Ct. 2347 (2014). The Court instructs us to “first determine whether the claims at issue are directed to a patent-ineligible concept,” *Id.* at 2355, and, in this case, the inquiry centers on whether the claims are directed to an abstract idea. If the initial threshold is met, we then move to the second step, in which we “consider the elements of

² The Examiner erroneously identifies the rejected claims as claims 1–4, 6–13, and 18–22 in the statement of rejection. Final Act. 12. However, in setting forth the details of the § 103 rejection, the Examiner addresses the claims 1–4, 7, 9, 10, 12, 13, 17–19, and 21–23.

each claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Id.* (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 79, 78 (2012)). The Court describes the second step as a search for “an ‘inventive concept’—*i.e.*, an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’” *Id.* (quoting *Mayo*, 566 U.S. at 72–73).

The USPTO recently published revised guidance on the application of § 101 to pending claims. USPTO’s January 7, 2019 Memorandum, *2019 Revised Patent Subject Matter Eligibility Guidance* (“Memorandum”).

Under that guidance, we first look to whether the claim recites:

- (1) any judicial exceptions, including certain groupings of abstract ideas (*i.e.*, mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes); and
- (2) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h)).

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look to whether the claim:

- (3) adds a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field (*see* MPEP § 2106.05(d)); or
- (4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

See Memorandum.

Examiner's Determinations and Conclusion

In the first step of the *Alice* inquiry, the Examiner determines the claims are directed to “the abstract idea of populating and using an electronic account-owner verification database.” Final Act. 8. The Examiner explains that:

The claim(s) are similar to other concepts that have been identified as abstract by the courts such as such as the claims' invocation of computers, networks and displays does not transform the claimed subject matter into patent-eligible applications. The claims at issue do not require any nonconventional computer network, or display components, or even a “non-conventional and non-generic arrangement of known, conventional pieces,” but merely call for performance of the claimed information collection analysis and display functions “on a set of generic computer components” and display devices.

Nothing in the claims, understood in the light of the specifications, requires anything other than off-the-shelf conventional computer, network and display technology for gathering, sending and presenting the desired information.

Final Act. 8 (citation omitted).

The Examiner further determines that the claims are directed to “identifying and reporting suspicious activity.” Ans. 4. The Examiner reasons that the recited steps in claim 1 are akin to “collecting and analyzing information to detect misuse and notify a user when misuse is detected as in [*FairWarning IP, LLC v. Iatric Sys.*, 839 F.3d 1089 (Fed. Cir. 2016)].”

Ans. 4.

At *Alice* step 2, the Examiner determines the claims do not recite elements sufficient to amount to significantly more than the abstract idea because:

[T]he claims are not seen to recite an improvement to another technology or technical field, an improvement to the functioning of the computer itself, or meaningful limitations beyond generally linking the use of an abstract idea to a particular technological environment. The functions performed by the computer components, such as, populating and using account-owner verification data, where for each participant institution a single electronic file of account-owner data elements linked to accounts maintained at the participant institution of the plurality of participant institutions is received and subsequently receiving regular updates to the single electronic file from the participant institution fails to (a) improve another technology or technical field and (b) improve the functioning of the computer itself and (c) applies the abstract idea with or by use of, a particular machine, which is a generic computer performing generic computer functions.

Final Act. 9 (emphasis omitted). The Examiner further finds that “the claimed additional elements not encompassed by the abstract idea merely describe generic computer components performing their respective conventional functions.” Ans. 6.

Appellants’ Contentions

Appellants present several arguments in favor of eligibility. First, Appellants argue the Examiner’s abstract idea characterization overgeneralizes the invention, and that the invention is better characterized as “directed to a specialized database arrangement that includes: a single electronic file of account-owner elements being received, this single file being required to include elements linked to a plurality of accounts for multiple account owners; and 2) check imaging data.” App. Br. 8.

Appellants further contend that the claims are similar those found eligible in *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016) because “the database and computing components of the Applicant’s claims

are not merely disguising an underlying abstract idea, but are rather essential in performance of the claimed arrangement; for example, allowing the database to be queried without revealing the contents of the database.” App. Br. 9–10.

Appellants also challenge the Examiner’s determination under *Alice* step 2. Specifically, Appellants argue their claimed embodiments are similar to examples provided in the USPTO 2015 Subject Matter Eligibility update because, like the eligible claim example in 2015 update, the “claimed arrangement requires that an account-owner verification database be constructed using single data files that include account information about multiple account owners and check imaging data, the constructed database is then queried in such a manner that the contents of the database are not revealed in response to the query.” App. Br. 10.

Our Review

Applying the guidance set forth in the Memorandum, we are not persuaded of Examiner error. The Memorandum instructs us first to determine whether any judicial exception to patent eligibility is *recited* in the claim. The guidance identifies three judicially-expected groupings: (1) mathematical concepts, (2) certain methods of organizing human activity such as fundamental economic practices, and (3) mental processes. We focus here on the second grouping—certain methods of organizing human activities such as fundamental economic practices.

Claim 1 recites the following limitations: (1) “for each participant institution of a plurality of participant institutions: receiving . . . [an] electronic file of account-owner data elements linked to a plurality of accounts maintained at the participant institution of the plurality of

participant institutions for multiple account owners and subsequently receiving regular updates to the single electronic file from the participant institution,” (2) “wherein: each account-owner data element received in the single electronic files correspond to a data element field in the account-owner verification database,” (3) “the account-owner data elements provided by each participant institution of the plurality of participant institutions comprises: an account number, an account type, an account holder name for each account of the plurality of accounts and the account-owner data elements provided by each participant institution are required to have a required set of data element fields for each account of the plurality of accounts,” (4) “populating . . . the data element fields of the electronic account-owner verification database with the account-owner data elements linked to accounts maintained at the participant institutions,” (5) “receiving . . . for verification, from an inquirer: an account number; and multiple data elements corresponding to the account number,” (6) querying . . . the account-owner database for the received account number and for each of the received multiple data elements corresponding to the received account number,” (7) “retrieving . . . a response from the account-owner verification database for each of the received data elements . . . that is indicative of the accuracy of the received data element and excludes customer-specific data,” (8) “wherein: the response is positive for the received data element if a data element stored in the data element field corresponding to the received account number matches the received data element,” (9) “the response specifies that information is unavailable for the received data element if there is no data element stored in the data element field corresponding to the received account number,” and

(10) “providing . . . the . . . responses to the inquirer.” App. Br. 18–19 (Claims Appendix).

These limitations, under their broadest reasonable interpretation, recite the fundamental economic practice of mitigating risk by determining if a person is authorized to transact on an account. More specifically, each of these limitations recites the operations that would ordinarily take place in determining whether a person is authorized to transact on an account. For example, limitations (1)–(4) recite receiving and storing up-to-date account information from account holding institutions, such as banks for example, in a conventional database, with information stored being sufficient to determine whether a particular person is authorized with respect to each account. Such data typically would be part of an account verification scheme. Limitations (5)–(9) recite the familiar practice of receiving an account number inquiry, comparing the received account number to the data stored in the database, and retrieving the results of that comparison to determine whether the account information is valid or not. Limitation (10) recites returning the results of the comparison to the inquirer. Like the concept of intermediated settlement in *Alice*, and the concept of hedging in *Bilski* (which like the instant claims involves evaluating and managing risk in a financial transaction), the concept of determining if a person is authorized to transact on an account recited in Appellants’ claims “is a fundamental economic practice long prevalent in our system of commerce.” *Alice*, 134 S. Ct. at 2356 (citations and internal quotation marks omitted). Indeed, the limitations recited above simply implement on a broader scale, the long-standing practice of contacting a bank to verify that sufficient funds are in an account against which a withdrawal is made, e.g., a

check is written and presented for a transaction. Accordingly, we conclude the claims *recite* a judicial exception of a fundamental economic practice.

Having determined that the claims recite a judicial exception, our analysis under the Memorandum turns to determining whether there are “additional elements that integrate the judicial exception into a practical application.” *See* MPEP § 2106.05(a)–(c), (e)–(h). Appellants’ claim 1 recites that various of the process steps are performed “by a computer system.” The recitation of a “computer system” without any additional detail of its structure or configuration is not sufficient to integrate the judicial exception into a practical application. *See* MPEP §§ 2106.05(b)(I) (“It is important to note that a general purpose computer that applies a judicial exception, such as an abstract idea, by use of conventional computer functions does not qualify as a particular machine.”), 2106.05(f) (“Another consideration when determining whether a claim recites significantly more than a judicial exception is whether the additional elements amount to more than a recitation of the words ‘apply it’ (or an equivalent) or are more than mere instructions to implement an abstract idea or other exception on a computer.”).

Claim 1 also recites the additional limitation that data received from participant institutions is received (a) as a “single electronic file.” Claim 1 also recites additional limitations regarding how data is retrieved from the database and presented to the inquirer, including (b) retrieving a separate response for each data element received in an inquiry “such that multiple responses are retrieved, wherein for each of the received data elements, a response is retrieved,” and (c) providing “multiple responses” to the inquirer. App. Br. 18–19 (Claims Appendix). Claim 1 also recites

additional limitations which focus on obtaining additional account data, via check images, which corresponds to accounts maintained at institutions which do not supply account owner data to the database. These limitations include (d) “receiving . . . a non-participant data elements obtained from a plurality of check images corresponding to a plurality of checks,” (e) “wherein: the plurality of check images include account-owner data elements linked to accounts maintained at non-participant institutions, the non-participant institutions are not required to provide account-owner data elements for the minimum required set of data element fields,” (f) “each non-participant data element corresponds to a data element field in the account-owner verification database,” (g) “for a given check of the plurality of checks, non-participant data elements are received corresponding to: a routing number, and account number, and at least one additional data element,” and (h) populating the account owner verification database with “the non-participant data elements at the non-participant institutions.”

We conclude that these limitations are insufficient to integrate the recited judicial exception of mitigating risk by determining if a person is authorized to transact on an account into a practical application. The receipt of account data in “a single file” from participant institutions, as recited in limitation (a), merely adds insignificant extra-solution activity to the judicial exception. *See* MPEP § 2106.05(g). The Specification describes no technological improvement associated with receiving “a single file,” and makes reference to this particular aspect of the invention only once. Spec. ¶ 34 (“Preferably, the database 10 is initially populated by the participant institutions 12 with a single file including all of the required

participant data elements 16 for all of the accounts in the participant institution 12.”).

Similarly, limitations (b) and (c), which each relate to receiving individualized responses for each data element retrieved from the database, also do not improve the functioning of a computer. *See* MPEP § 2106.05(a). To the extent providing a response for each received data element realizes an improvement, it is an improvement to how account verification information is conveyed to an inquirer—i.e., an improvement to the abstract idea itself.

Limitations (d)–(h), which focus on the use of check images to populate the account-owner electronic verification database, are also insufficient. The Specification acknowledges that “[i]maging checks and reading account information is well known in the art. Therefore, a description of check imaging systems is omitted here for convenience only, and should not be considered limiting.” Spec. ¶ 28. As such, we do not observe any improvement to the operation of a computer that is provided by obtaining information from check images. Instead, these limitations relate improving the quality of the data by obtaining account verification data from an alternative data source, which, as with the limitations above, is an improvement to the abstract idea itself. *See, e.g.* Spec. ¶ 41 (“[S]ince the database 10 also integrates account information from non-participant institutions 32, the database 10 according to the present invention includes an added level of robustness, thereby providing additional verification accuracy to an inquirer.”). Because these additional limitations are not sufficient to integrate the recited abstract idea into a practical application, we conclude the claim is *directed to* the recited judicial exception.

Having determined the claim is directed to a judicial exception, we proceed to evaluating whether the claim adds any specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field (*see* MPEP § 2106.05(d)) or simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception. *See* Memorandum.

We agree with the Examiner that the claim does not supply the inventive concept required under *Alice* step 2. Appellants’ arguments under *Alice* step 2 are that the use of a “single file” and “check imaging data” are unconventional and non-generic. Reply Br. 4. As we explained above, however, there is no indication in the Specification that sending a collection of data in “a single file” offers a non-conventional implementation of data sharing. Indeed, the well-known and conventional way to share sets of related data is to collect them in a file and transmit the file. The fact that Appellants’ devote only a single sentence of description to this allegedly inventive functionality is a fair indication that the use of a single file was well-known and conventional at the time the application was filed. Similarly, as discussed above, Appellants’ Specification also acknowledges that extracting data from check images to store and databases was well-known. Spec. ¶ 28 (“Imaging checks and reading account information is well known in the art.”). In fact, the Specification purposefully omits any description of check imaging technology under the presumption that it is well understood, routine, and conventional. As such, the use of check images as a secondary data source is not sufficient to supply an inventive concept under *Alice* step 2. Finally, Appellants emphasize the alleged capability that the invention provides “a database that can be queried to

determine whether individual data elements match without revealing stored data.” Reply Br. 4. However, such a requirement amounts to nothing more than the implementation of the conventional and well-known “IN” operator of the Structured Query Language (“SQL”).

Accordingly, we do not discern in claim 1 any “specific limitation beyond the judicial exception that is not ‘well-understood, routine, conventional,’” and, instead, agree with the Examiner that the claims do not supply an inventive concept sufficient to transform the judicial exception into patent-eligible subject matter.

Because the Examiner correctly concluded claim 1 is directed to a judicial exception, and because Appellants do not identify any error in the Examiner’s determination under *Alice* step 2, we sustain the rejection of claim 1 under 35 U.S.C. § 101. Appellants do not present arguments for any other claim. Accordingly, we treat claim 1 as representative, and sustain the patent-eligibility rejection of the remaining claims for the same reasons.

REJECTION UNDER 35 U.S.C. § 103(a)

We reverse the rejection under 35 U.S.C. § 103(a). In rejecting claim 1 as obvious over Bozeman and Weinflash, the Examiner finds that Bozeman discloses most of the claim limitations. Final Act. 13–15. Relevant here, the Examiner acknowledges that Bozeman does not explicitly disclose obtaining responses from the account-owner verification database, “such that multiple responses are retrieved, wherein, for each of the received data elements, a response is retrieved that is indicative of the accuracy of the received data element and excludes customer-specific data.” Final Act. 15–16. The Examiner cites Weinflash for this limitation, finding that Weinflash

demonstrates that it was known for banks to transmit item files to a non-participant data base management entity while removing participant data using a filter. Final Act. 16 (citing Weinflash col. 5, l. 66–col. 6, l. 6 and Fig. 4). The Examiner also cites Bozeman’s check verification feature as suggesting this limitation. Final Act. 5–6 (citing Bozeman ¶ 75).

Appellants argue “there is no assessment of *multiple individual account elements*,” as is required by claim 1. App. Br. 12. We agree. The cited portions of Bozeman describe a check verification service in which a *single* response is provided regarding whether a positive or negative rating is given for a check presented to a commercial retail entity. Bozeman ¶¶ 75–76. However, unlike the disputed limitation, Bozeman makes a single, binary determination—a positive or negative rating with respect to the customer based on a single data element—whether checks have been previously dishonored. The cited portions of Weinflash do not cure this deficiency, as Weinflash merely describes receiving daily data updates from banks and filtering out participant data, and Weinflash does not contemplate retrieving a response indicative of the accuracy of each data element. Accordingly, we are persuaded the Examiner erred in concluding claim 1 would have been obvious over the cited references, and we do not sustain the rejection of claim 1, of independent claims 7 and 13 which recite similar limitations, and the remaining claims which depend therefrom.

DECISION

We affirm the Examiner’s rejection of claims 1–4, 7, 9, 10, 12, 13, 17–19, and 21–23 under 35 U.S.C. § 101.

Appeal 2018-002178
Application 10/773,642

We reverse the Examiner's rejection of claims 1–4, 7, 9, 10, 12, 13, 17–19, and 21–23 under 35 U.S.C. § 103.

Because we have affirmed at least one ground of rejection for each claim on appeal, we affirm the Examiner's decision to reject the claims. 37 C.F.R. § 41.50(a)(1).

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

AFFIRMED