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MOBIN, HASANUL

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* FLORIAN FOEBEL, BJOERN FRIEDMANN,  
BORIS GRUSCHKO, CHRISTIAN MOHR,  
MARTIN STRENGE, and SASCHA ZORN

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Appeal 2018-005271  
Application 14/318,853<sup>1</sup>  
Technology Center 2100

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Before DEBRA K. STEPHENS, DANIEL J. GALLIGAN, and  
DAVID J. CUTITTA II, *Administrative Patent Judges*.

GALLIGAN, *Administrative Patent Judge*.

DECISION ON APPEAL

*Introduction*

Appellants appeal under 35 U.S.C. § 134(a) from a final rejection of claims 1–17, which are all of the claims pending in the application. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.<sup>2</sup>

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<sup>1</sup> According to Appellants, the real party in interest is SAP SE. App. Br. 2.

<sup>2</sup> Our Decision refers to Appellants' Appeal Brief filed October 2, 2017 ("App. Br."); Appellants' Reply Brief filed April 23, 2018 ("Reply Br."); Examiner's Answer mailed February 28, 2018 ("Ans."); and Final Office Action mailed May 16, 2017 ("Final Act.").

STATEMENT OF THE CASE

*Claims on Appeal*

Claims 1, 7, and 12 are independent claims. Claim 1 is reproduced below:

1. A system comprising:
  - a database storing data; and
  - a processor to execute processor-executable process steps to cause the system to:
    - receive a request to modify the data, the request including first data;
    - execute processing to fulfill the request;
    - determine, during execution of the processing to fulfill the request to modify the data, that a validation exit including executable code to validate the data to be modified is associated with a current state of the processing to fulfill the request to modify the data;
    - store the first data in a local temporary table in response to the determination that the validation exit is associated with the current state of the processing to fulfill the request to modify the data;
    - pass the local temporary table to the validation exit; and
    - execute the validation exit to validate the first data based on the local temporary table and on the data of the database.

*References*

Khosravy	US 2011/0225107 A1	Sept. 15, 2011
Duff	US 2012/0191735 A1	July 26, 2012
Ahmed	US 2013/0198238 A1	Aug. 1, 2013

*Examiner's Rejections*

Claims 1–17 stand rejected under 35 U.S.C. § 101 as directed to patent-ineligible subject matter. Final Act. 6–8.

Claims 1–3, 5–8, 10–14, 16, and 17 stand rejected under 35 U.S.C. § 103 as being unpatentable over Duff and Ahmed. *Id.* at 9–14.

Claims 4, 9, and 15 stand rejected under 35 U.S.C. § 103 as being unpatentable over Duff, Ahmed, and Khosravy. *Id.* at 14–15.

Our review in this appeal is limited only to the above rejections and the issues raised by Appellants. Arguments not made are waived. *See* MPEP § 1205.02; 37 C.F.R. §§ 41.37(c)(1)(iv) and 41.39(a)(1).

ANALYSIS

35 U.S.C. § 101

The Examiner concludes claims 1–17 are directed to patent-ineligible subject matter. Final Act. 6–8. We agree with Appellants that the claims are directed to patent-eligible subject matter.

An invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. However, the Supreme Court has long interpreted 35 U.S.C. § 101 to include the following implicit exceptions: laws of nature, natural phenomena, and abstract ideas. *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014).

In *Alice*, the Supreme Court set forth an analytical “framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Id.* at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). The first step in the analysis is to

“determine whether the claims at issue are directed to one of those patent-ineligible concepts.” *Id.* at 217. If the claim is “directed to” an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where “we must examine the elements of the claim to determine whether it contains an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Alice*, 573 U.S. at 221.

Following the recent *United States Patent and Trademark Office 2019 Revised Patent Subject Matter Eligibility Guidance* (“2019 Guidance”), 84 Fed. Reg. 50 (Jan. 7, 2019), we initially observe that independent claims 1, 7, and 12 recite, respectively, a system, a method, and a non-transitory computer-readable medium. As such, the claims are directed to statutory classes of invention within 35 U.S.C. § 101.

Next, we turn to the first step of the *Alice* analysis, discussed in “Revised Step 2A” of the *2019 Guidance*. *Id.* at 54. The Examiner determines the claims “describe the abstract idea of collecting and comparing known information . . . and data recognition and storage.” Final Act. 3, 7 (citations omitted); Ans. 3. Appellants argue that, rather than being directed to an abstract idea, the claims are “directed to validating changes in a database at specific times in the request processing by executing a registered exit to perform the validation” and further “provide[] benefits over conventional databases.” App. Br. 9.

We agree with Appellants that the claims are not directed to an abstract idea and are instead directed to a manner of validating changes in a database. In determining that claims are directed to an abstract idea, the *2019 Guidance* requires an identification that the claims recite limitations falling within at least one of three enumerated abstract idea groupings: (a)

mathematical concepts, (b) certain methods of organizing human activity, and (c) mental processes. 84 Fed. Reg. at 52, 54. The claims here recite steps to “validate . . . first data” for modifying database data “based on [a] local temporary table and on the data of the database.” Claim 1.

Specifically, those steps “store the first data to a local temporary table” and “pass the local temporary table to [a] validation exit” for validation. *Id.* We determine that those claimed steps, reciting a particular manner of validating data to be input in a database, do not fall within one of the three enumerated abstract idea groupings. We determine, therefore, that the claims are not directed to an abstract idea in accordance with the *2019 Guidance*. See 84 Fed. Reg. at 52, 54; see *Ancora Techs., Inc. v. HTC Am., Inc.*, 908 F.3d 1343, 1347 (Fed. Cir. 2018) (noting that claims directed to “non-abstract improvements to computer technology” “pass muster under *Alice* step one when sufficiently focused on such improvements”) (quotations and citations omitted).

Therefore, because the claims do not recite “subject matter within the enumerated groupings of abstract ideas,” and so are not directed to a judicial exception, the claims are eligible under the first step of the *Alice* analysis, and we do not reach the second step of the *Alice* analysis. See *2019 Guidance*, 84 Fed. Reg. at 52, 54. Accordingly, we do not sustain the rejection of claims 1–17 under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter.

35 U.S.C. § 103

Appellants contend the Examiner erred in finding Duff teaches “determin[ing], during execution of the processing to fulfill the request to

modify the data, that a validation exit including executable code to validate the data to be modified is associated with a current state of the processing to fulfill the request to modify the data,” as recited in claim 1 and similarly recited in claims 7 and 12. App. Br. 12–13; Reply Br. 2–3. Specifically, Appellants argue that, in Duff, “updated data is stored, and then a second request (block 445), separate from the first request for the data (block 405), is made for validation of the updated data after the updated data is received (e.g., after the request for data has been fulfilled).” App. Br. 13; *see* Reply Br. 2–3. That is, Appellants argue Duff’s “validati[on] [of] the updated data of the first request” does not teach the disputed limitations. Reply Br. 3.

We are not persuaded. The Examiner relies on the data table update procedure of Duff (*see* Final Act. 9–10; Ans. 9), which includes “subsequent requests (e.g., second request 215 from FIG. 2E)” including data table “changes reflected” that are “validated against permissibly modifiable fields” (Duff ¶ 71; *see* Duff ¶¶ 101, 109, Fig. 4). The Examiner finds, and we agree, that Duff’s data table update procedure, which validates the update data of Duff’s second request, teaches “determin[ing], during execution of the processing to fulfill the request to modify the data, that a validation exit including executable code to validate the data to be modified is associated with a current state of the processing to fulfill the request to modify the data.” Ans. 9; Final Act. 9–10 (citing Duff ¶ 101, Fig. 4).

Appellants’ argument directed to Duff’s “validati[on] [of] the updated data of the first request” after the first request has been fulfilled (Reply Br. 3; App. Br. 13) does not address the validation of update data in Duff’s second request. Duff explains that “one or more cells in the user session data table are updated responsive to update data received within a second

request received.” Duff ¶ 100. That second request update data is validated so that the second request to update data can then be fulfilled. Duff ¶¶ 71 (“changes reflected in the second request 215 may be appropriately validated), 109 (“processing logic receives a second request . . . processing logic validates the update data,” Fig. 4). Accordingly, we are not persuaded the Examiner erred in finding Duff teaches “determin[ing], during execution of the processing to fulfill the request to modify the data, that a validation exit including executable code to validate the data to be modified is associated with a current state of the processing to fulfill the request to modify the data.”

Appellants further contend Ahmed does not teach “stor[ing] the first data in a local temporary table in response to the determination that the validation exit is associated with the current state of the processing to fulfill the request to modify the data [and] pass[ing] the local temporary table to the validation exit,” as recited in claim 1 and similarly recited in claims 7 and 12. App. Br. 13. Specifically, Appellants argue “simply providing a data update and verification module to store, compare and verify data, as in Ahmed cannot be seen to disclose or to suggest” the claimed limitations. *Id.*

Appellants’ argument (*id.*) is not persuasive because that argument merely describes Ahmed and summarily concludes Ahmed does not teach certain recited and underlined claim language. Appellants do not explain why the relied-upon portions of Ahmed, or Appellants’ description of Ahmed, fail to teach the disputed limitations. Moreover, Appellants do not present persuasive argument or evidence that the Examiner erred in finding (Ans. 8–9; Final Act. 10–11) the combination of Ahmed, describing “data update and verification module 116 [which] may store expected data in file

170, in source database 160, or in target database 150” for “later verification and comparison of updated data” (Ahmed ¶ 36), and Duff, describing user session data tables and update data validation (Duff ¶¶ 69, 71, 109), teaches “stor[ing] the first data in a local temporary table in response to the determination that the validation exit is associated with the current state of the processing to fulfill the request to modify the data [and] pass[ing] the local temporary table to the validation exit,” as recited in claim 1 and similarly recited in claims 7 and 12.

Accordingly, we are not persuaded the Examiner errs in finding the combination of Duff and Ahmed teaches or suggests the limitations as recited in claims 1, 7, and 12. Therefore, we sustain the rejection of claims 1, 7, and 12 under 35 U.S.C. § 103 as being unpatentable over the combination of Duff and Ahmed. Appellants do not argue separate patentability for dependent claims 2–6, 8–11, and 13–17, which depend directly or indirectly from claims 1, 7, and 12. *See* App. Br. 15. Accordingly, for the reasons set forth above, we sustain the Examiner’s decision to reject claims 2–6, 8–11, and 13–17.

## DECISION

We reverse the Examiner’s decision rejecting claims 1–17 under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter.

We affirm the Examiner’s decision rejecting claims 1–3, 5–8, 10–14, 16, and 17 under 35 U.S.C. § 103 as being unpatentable over Duff and Ahmed.

We affirm the Examiner’s decision rejecting claims 4, 9, and 15 under 35 U.S.C. § 103 as being unpatentable over Duff, Ahmed, and Khosravy.

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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. § 41.50(f).

AFFIRMED