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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DEEPAK GOEL, KAVEL PATEL, and
SAJJIT THAMPY

Appeal 2017-006298
Application 14/139,877
Technology Center 3600

Before ST. JOHN COURTENAY III, JOHN D. HAMANN, and
SCOTT E. BAIN, *Administrative Patent Judges*.

COURTENAY, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants¹ appeal under 35 U.S.C. § 134(a) from a Final rejection² of claims 1–14 and 16–30. Claim 15 is cancelled. We have jurisdiction over the pending claims under 35 U.S.C. § 6(b).

We affirm.

¹ According to Appellants, the real party in interest is Quotient Technology Inc., which is the assignee of the present application. App. Br. 1.

² We herein refer to the Specification, filed Dec. 24, 2013 (“Spec.”); Final Office Action, mailed Feb. 12, 2016 (“Final Act.”); Appeal Brief, filed Jun. 30, 2016 (“App. Br.”); and the Examiner’s Answer, mailed Dec. 9, 2016 (“Ans.”).

STATEMENT OF THE CASE

Introduction

Embodiments of Appellants' invention "relate generally to determining, on behalf of a coupon provider and based on multiple factors, a value for a coupon." Spec. ¶ 2.

Exemplary Claim

1. A method performed by a coupon distributor that is different from a coupon provider, the method comprising, prior to distributing a coupon:

using a first computing device of a coupon distributor, sending, to a web browser of a second computing device of the coupon provider, a webpage that is addressed by a particular uniform resource locator (URL);

using the first computing device of the coupon distributor to receive, within a hypertext transfer protocol (HTTP) request from the web browser of the second computing device of the coupon provider that provides a product or service to which the coupon pertains, budget data that indicates an amount to spend, by the coupon provider, on coupon services relating to the issuance of the coupon;

using the first computing device, receiving, from the second computing device, redemption data that indicates a number of anticipated redemptions of the coupon and a plurality of attributes of a coupon campaign that is to be initiated by the coupon provider; and

using the first computing device, and based on a subset of said plurality of attributes of the coupon campaign as a lookup key, selecting, from said first database table, a particular redemption rate function from a plurality of redemption rate functions that occupy said first database table, wherein each redemption rate function of said plurality of redemption rate

functions calculates a redemption rate based on a possible coupon value;

using the first computing device, applying the particular redemption rate function to a possible coupon value to calculate an estimated redemption rate;

using the first computing device, computing, based on the estimated redemption rate, the budget data, and the redemption data, a particular value of the coupon;

using the first computing device storing in a second database table the particular value as the value of the coupon in the coupon campaign;

using the first computing device to activate the coupon campaign.

App. Br. 24 (Claims Appendix).

Rejection

Claims 1–14 and 16–30 are rejected under 35 U.S.C. § 101, as being directed to a judicial exception, without significantly more.³ Final Act. 2.

Issue on Appeal

Did the Examiner err in rejecting claims 1–14 and 16–30 under 35 U.S.C. § 101, as being directed to a judicial exception, without significantly more?

³ See MANUAL OF PATENT EXAMINING PROCEDURE (MPEP) § 706.03(a) (9th Ed., Rev. 08.2017, Jan. 2018).

ANALYSIS

We have considered all of Appellants' arguments and any evidence presented. We highlight and address specific findings and arguments for emphasis in our analysis below.

35 U.S.C. § 101

Mayo/Alice Analysis

Under 35 U.S.C. § 101, a patent may be obtained for “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” The Supreme Court has “long held that this provision contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014) (quoting *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)). The Supreme Court in *Alice* reiterated the two-step framework previously set forth in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66, 82–84 (2012), “for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice*, 134 S. Ct. at 2355.

The first step in that analysis is to determine whether the claims at issue are directed to one of those patent-ineligible concepts, such as an *abstract idea*. Abstract ideas may include, but are not limited to, fundamental economic practices, methods of organizing human activities, an idea of itself, and mathematical formulas or relationships. *Id.* at 2355–57.

If the “acts” of a claimed process manipulate only numbers, abstract concepts or ideas, or signals representing any of the foregoing, the acts are not being applied to appropriate subject matter. *See Gottschalk v. Benson*,

409 U.S. 63, 71–72 (1972). “Phenomena of nature, though just discovered, mental processes, and abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work.” *In re Ferguson*, 558 F.3d 1359, 1363 (Fed. Cir. 2009) (quoting *Benson*, 409 U.S. at 67). Moreover, if a method can be performed by human thought alone, or by a human using pen and paper, it is merely an abstract idea and is not patent eligible under § 101. *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372–73 (Fed. Cir. 2011).

If the claims are not directed to a patent-ineligible concept, the inquiry ends. *See Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253, 1262 (Fed. Cir. 2017).

Otherwise, the inquiry proceeds to the second step, in which the elements of the claims are considered “individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 566 U.S. at 79, 78). We consider the question of whether the claims are directed to a specific improvement in the capabilities of the computing devices, or, instead, “a process that qualifies as an ‘abstract idea’ for which computers are invoked merely as a tool.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336 (Fed. Cir. 2016).

We, therefore, decide under step two, whether the claims: (a) set forth an inventive concept that provides a specific means or method that improves the relevant technology, or (b) are directed to a result or effect that itself is the abstract idea, in which the claims merely invoke generic processes and machinery. *See Enfish*, 822 F.3d at 1336.

The Examiner's Rejection under 35 U.S.C. § 101

Regarding the first step of the *Alice/Mayo* analysis, the Examiner concludes that claims 1–14 and 16–30 are directed to a judicial exception, *i.e.*, an abstract idea, because the claims are directed “to either of the abstract idea of determining the value of a coupon, similar to the patent found ineligible in *OIP Technologies, Inc. v. Amazon.com, Inc.*⁴ (the computing the value of a coupon step) or of comparing and organizing information.” Final Act. 2.⁵

Regarding the second step of the *Mayo/Alice* analysis, the Examiner finds the claims do not include additional elements that amount to significantly more than the judicial exception, because:

The claims recite the additional elements of computing devices, storage media and instructions. These elements are recited at a high level of generality and only perform generic computer functions of manipulating information and sharing information among computers. Generic computers performing generic computer functions, without an inventive concept, do not amount to significantly more than the abstract idea. The Internet limitations (use of URLs, HTTP and so forth) are simply a field of use that attempts to limit the abstract idea to a particular

⁴ The Examiner is referring to *OIP Technologies, Inc. v. Amazon.com, Inc.*, 788 F.3d 1359 (Fed. Cir. 2015). We agree with the Examiner that Appellants’ claimed method for computing the particular value of a coupon (based on various factors) is similar to the claimed *method for pricing a product for sale* that the *OIP* court considered to be an “abstract idea of offer-based price optimization [that] lacks an ‘inventive concept’ sufficient to ‘transform’ the claimed subject matter into a patent-eligible application of that idea.” *Id.* at 1364.

⁵ “Patent eligibility under § 101 presents an issue of law.” *Accenture Glob. Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1340–41 (Fed. Cir. 2013).

technological environment. Mathematical calculations such as those of Claim 7 are *per se* unpatentable and are not rendered patentable by their being performed by generic computers. The type of information being manipulated or statements as to who owns or provides the information does not impose meaningful limitations or render the idea less abstract. Looking at the elements as an ordered combination does not add anything more than the elements analyzed individually.

Final Act. 3.⁶

For the aforementioned reasons, the Examiner concludes that all claims 1–14 and 16–30 on appeal are not patent eligible under 35 U.S.C. § 101.

Mayo/Alice Analysis — Step 1

Regarding *Alice* Step 1, Appellants contend:

none of the pending claims has been analyzed as a whole. The Federal Circuit has directly abrogated this approach in commenting that " ... the 'directed to' inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether 'their character as a whole is directed to excluded subject matter.'" *Enfish*, supra; emphasis added. In other words, the courts have already settled that ineligibility cannot be concluded unless a claim is analyzed as a whole.

App. Br. 6.

⁶ The patent-eligibility inquiry may contain underlying issues of fact. *Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1325 (Fed. Cir. 2016). In particular, "[t]he question of whether a claim element or combination of elements is well-understood, routine and conventional to a skilled artisan in the relevant field is a question of fact." *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018).

In response, the Examiner further explains the basis for the rejection:

Looking at the claims as a whole, which the appellant complains that the Examiner has not done, necessarily requires looking at the individual parts - that can't be ignored - and then looking at the interaction between the parts. The type of computers involved and the role they play is most typically analyzed at step 2B, and the Examiner considered those elements at that time. Looking at the rest of the claim, the interaction between the abstract steps is simply chronology and the passing of data from one step to the next: first, data is sent somewhere; second, additional data (in this case, budget information) is received from the target of the original data; third, yet more data (in this case, redemption data) is received; fourth, a mathematical rule is chosen from among several possible such rules based upon the data; fifth, the mathematical rule is used to compute a numerical quantity (a coupon value) with an intermediate step of computing another value (estimated redemption rate) used in the final computation; sixth, the final result is stored; seventh, some barely-specified action ("using the first computer device to activate the coupon campaign") is performed. How any of this is supposed to go beyond the stated abstractions - comparing and organizing data for transmission, and making mathematical computations to determine a value - is unclear to the Examiner.

Ans. 3.

In determining whether claims are patent-eligible under Section 101, “the decisional mechanism courts now apply is to examine earlier cases in which a similar or parallel descriptive nature can be seen—what prior cases were about, and which way they were decided.” *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1294 (Fed. Cir. 2016). Further, “[E]xaminers are to continue to determine if the claim recites (i.e., sets forth or describes) a concept that is similar to concepts previously found abstract by the courts.” *Id.* at 1294 n.2.

Contrary to Appellants' contentions, we find the Examiner has considered the claims as a whole. *See* Final Act. 2–7; Ans. 3. We note the court in *Enfish* held that the subject claims “are not directed to an abstract idea within the meaning of Alice. Rather, they are directed to a specific *improvement to the way computers operate, embodied in the self-referential table.*” *Id.* 822 F.3d at 1336. (emphasis added). We emphasize the self-referential database table considered by the court in the *Enfish* was found to be a specific type of data structure that was designed to improve the way a computer stores and retrieves data in memory. *Enfish*, 822 F.3d at 1339.

Here, Appellants have not shown that any features of the claims before us on appeal improve the way the recited generic *first and second computing devices* store and retrieve data, in a manner analogous to that found by the court in *Enfish*. *See* Appellants' independent claims 1, 13, 16, and 28. We find Appellants' recited *first and second database tables* are nothing more than conventional relational database tables that may be accessed with a conventional lookup key.⁷ *Id.*

Therefore, on this record, we are not persuaded that Appellants' claimed invention improves the recited *computer device, processor, database, or storage media* functionality or efficiency, or otherwise changes the way the claimed generic computer components function, at least in the sense contemplated by the Federal Circuit in *Enfish*.

⁷ Appellants' claimed “*said first database table*” appears to have no positive antecedent basis in each of independent claims 1, 13, 16, and 28. (emphasis added). In the event of further prosecution, we leave it to the Examiner to consider a rejection under pre-AIA 35 U.S.C. § 112, second paragraph, of all claims 1–14 and 16–30.

Moreover, data gathering, as recited in Appellants' claims, is a classic example of insignificant extra-solution activity. *See, e.g., In re Bilski*, 545 F.3d 943, 963 (Fed. Cir. 2008) (en banc), *aff'd sub nom, Bilski v. Kappos*, 561 U.S. 593 (2010). The Federal Circuit has concluded that abstract ideas include the concepts of collecting data, recognizing certain data within the collected data set, and storing the data in memory. *Content Extraction & Transmission LLC v. Wells Fargo Bank, N.A.*, 776 F.3d 1343, 1347 (Fed. Cir. 2014); *see also Smart Sys. Innovations, LLC v. Chicago Transit Auth.*, 873 F.3d 1364, 1372 (Fed. Cir. 2017) (concluding "claims directed to the collection, storage, and recognition of data are directed to an abstract idea"); *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016) (the collection of information and analysis of information are abstract ideas).

But for the recitation of generic recited *computer devices*, and/or a *processor, database, and storage media* memory (claims 1, 13, 16, 28), we agree with the Examiner (Ans. 5) that the recited steps, acts, or functions could be performed as mental steps, or with the aid of pen and paper. *See Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1146–47 (Fed. Cir. 2016) ("While the Supreme Court has altered the § 101 analysis since *CyberSource* in cases like *Mayo* and *Alice*, we continue to 'treat[] analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes within the abstract-idea category.'" (brackets in original) (quoting *Elec. Power Grp.*, 830 F.3d at 1354)); *see also CyberSource*, 654 F.3d at 1375 ("That purely mental processes can be unpatentable, even when performed by a computer, was precisely the holding of the Supreme Court in *Gottschalk v. Benson*."); *see also In re Comiskey*, 554 F.3d 967, 979 (Fed. Cir. 2009) ("[M]ental

processes—or processes of human thinking—standing alone are not patentable even if they have practical application.”).

Further, we conclude Appellants’ calculation of a redemption rate (claims 1, 13, 16, 28) and the calculation of value of the coupon (e.g., claims 7 and 22) are comparable to computing alarm limits in a catalytic conversion process using a *mathematical formula*, which was held a patent ineligible abstract idea in *Parker v. Flook*, 437 U.S. 584 (1978). See *Alice*, 134 S.Ct. at 2355.

“[M]erely selecting information, by content or source, for collection [and] analysis . . . does nothing significant to differentiate a process from ordinary mental processes” *Elec. Power Grp.*, 830 F.3d at 1355. Data gathering, such as receiving and analyzing (or identifying data), by itself, does not transform an otherwise-abstract process or system of information collection and analysis. See *id.*

Appellants advance no further substantive arguments regarding *Alice* Step 1. Therefore, on this record, we conclude Appellants’ claims 1–14 and 16–30 are directed to an abstract idea, which is similar to the abstract ideas identified by our reviewing courts, as discussed above, which could additionally be performed as mental steps, albeit with the aid of pen and paper.

Mayo/Alice Analysis – Step 2

Because we conclude the claims are directed to an abstract idea for essentially the same reasons articulated by the Examiner (Final Act. 2–7; Ans. 2–6), we turn to the second part of the *Alice/Mayo* analysis. We analyze the claims to determine if there are additional limitations that individually, or as an ordered combination, ensure the claims amount to

“significantly more” than the abstract idea. *Alice*, 134 S. Ct. at 2357 (internal quotations and citation omitted).

Regarding *Alice* Step 2, Appellants address the purported *inventive concept* of the claims. App. Br. 7. In support, Appellants urge that the claims are directed:

to a specific improvement to the way computers operate, embodied in the *database table* that maps coupon campaign attribute values to stored redemption rate functions programmed to *calculate* redemption rates based on possible coupon values, as well as process steps and sequences of instructions that receive budget data, redemption data, campaign attribute values, apply a particular redemption rate function selected from the table to the data and values to calculate an estimated redemption rate and to compute coupon values to be used in a campaign.

App. Br. 7 (emphasis added).

In response, the Examiner further explains the basis for the rejection: “the steps of the method are all abstract, and do not amount to significantly more than themselves. The computers are in fact *generic* and the appellant has not made any attempt to argue otherwise, except for the typical argument that the computers have been programmed to perform the business function, but the same was true of *Ultramercial*.”⁸ Ans. 7 (emphasis added).

⁸ The Examiner is referring to *Ultramercial Inc. v. Hulu LLC*, 722 F.3d 1335, 1346 (Fed. Cir. 2013) (“[T]he Supreme Court has stated that, even if a claim does not wholly pre-empt an abstract idea, it still will not be limited meaningfully if it contains only insignificant or token pre- or post-solution activity—such as identifying a relevant audience, a category of use, field of use, or technological environment.”), *vacated and remanded*, *WildTangent, Inc. v. Ultramercial LLC*, 134 S. Ct. 2870 (2014) (remanding for consideration in light of *Alice*, 134 S. Ct. 2347).

Appellants further contend:

to properly assess whether a limitation that relates to the operation of a computing device is "significantly more", it is necessary to understand what is meant by the term "generic computer function". The courts have been clear that "generic computer function" does not mean "any operation that a general purpose computer, with the proper programming, would be able to perform". Such an interpretation of "generic computer function" would render all computer implemented inventions patent-ineligible per-se. With proper programming, a general purpose computer can perform every computer-implemented invention, including those that have been held patent-eligible by the courts . . .

For example, the novel limitations of *Diamond v. Diehr* (patent eligible) involved performing repetitive calculations (a category in the list), while all operations performed in *DDR Holdings* (patent eligible) fall under "receiving, processing, storing data and receiving" (a category in the list) or "transmitting data over a network" (a category in the list) and the *Enfish* claims (patent eligible) could be deemed "electronic recordkeeping" (also a category).

App. Br. 14.

We, however, find the claims on appeal are *silent* regarding specific limitations directed to an *improved* computer system, processor, memory, network, database, or Internet. Therefore, we find Appellants' claimed invention does not provide a solution "necessarily rooted in *computer technology* in order to overcome a problem specifically arising in the realm of computer networks," as considered by the court in *DDR Holdings LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014) (emphasis added).

Further, regarding the use of the recited generic "processor" (claim 15), "the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention." *Alice*, 134 S. Ct. at

2358; *see also* *BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1348 (Fed. Cir. 2016) (“An abstract idea on ‘an Internet computer network’ or on a generic computer is still an abstract idea”). On this record, we find that Appellants’ claims do not operate the recited generic computer components in an unconventional manner to achieve an improvement in computer functionality.

Our reviewing court provides additional guidance: *See FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1096 (Fed. Cir. 2016) (“[T]he use of generic computer elements like a microprocessor or user interface do not alone transform an otherwise abstract idea into patent-eligible subject matter.”); *OIP Techs*, 788 F.3d at 1363 (claims reciting, *inter alia*, sending messages over a network, gathering statistics, using a computerized system to automatically determine an estimated outcome, and presenting offers to potential customers found to merely recite “‘well-understood, routine conventional activities’” by either requiring conventional computer activities or routine data-gathering steps) (internal citation omitted); *see also Elec. Power Grp.*, 830 F.3d at 1355 (“We have repeatedly held that such invocations of computers and networks that are not even arguably inventive are ‘insufficient to pass the test of an inventive concept in the application’ of an abstract idea” (quoting *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1353, 1355 (Fed. Cir. 2014))); *Intellectual Ventures I LLC v. Capital One Financial Corp.*, 850 F.3d 1332, 1341 (Fed. Cir. 2017) (“Rather, the claims recite both a generic computer element—a processor—and a series of generic computer ‘components’ that merely restate their individual functions That is to say, they merely describe the functions of the abstract idea itself, without particularity. This is simply not enough under step two”).

The Supreme Court additionally guides that the “prohibition against patenting abstract ideas ‘cannot be circumvented by attempting to limit the use of the formula to a particular technological environment’ or [by] adding ‘insignificant postsolution activity.’” *Bilski*, 561 U.S. at 610–11 (quoting *Diehr*, 450 U.S. at 191–92).

To the extent Appellants argue that the claims on appeal avoid “all ways of practicing the identified abstract idea” (App. Br. 16), our reviewing court provides applicable guidance: “While preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.” *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015); *Ultramercial, Inc. v. Hulu LLC*, 722 F.3d 1335, 1346 (Fed. Cir. 2013); *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) (collecting cases); *Accenture Global Servs. v. Guidewire Software, Inc.*, 728 F.3d 1336, 1345 (Fed. Cir. 2013).

In the Reply Brief (1) Appellants urge that “[c]laims providing ‘an unconventional solution that was an improvement over the prior art’ have been held to recite eligible subject matter,” citing in support *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1294 (Fed. Cir. 2016), as an intervening authority (decided by the Federal Circuit on November 1, 2016, after the (corrected) Appeal Brief was filed on August 29, 2016).

We note the *Amdocs* court found claim 1:

entails an unconventional technological solution (*enhancing* data in a distributed fashion) to a technological problem (massive record flows which previously required massive databases). The solution requires arguably generic components, including network devices and “gatherers” which “gather” information. However, the claim’s *enhancing limitation* necessarily requires that these generic components operate in an

unconventional manner to achieve an improvement in computer functionality.

Id. at 1300–01 (emphasis added).

However, in contrast with *Amdocs*, here Appellants do not present, nor do we find, a specific technical improvement provided by the claims before us on appeal. For the reasons discussed above, we find Appellants’ claims do not operate the recited generic computer components in an unconventional manner to achieve an improvement in computer functionality.

We additionally note the claims considered by the court in *Amdocs* are further distinguished from Appellants’ claims on appeal, because the *Amdocs* court performed significant claim construction of the word “enhance” regarding the last recited ’065 patent claim 1 function “of “using the accounting information . . . to *enhance* the first network accounting record.” (emphasis added). As noted by the *Amdocs* court:

In *Amdocs I*, we construed “enhance” as being dependent upon the invention’s distributed architecture. 761 F.3d at 1338–40 (quoting ’065 patent at 7:51–57, 10:45–50, 7:7–8). We construed “enhance” as meaning “to apply a number of field enhancements in a distributed fashion.” *Id.* at 1340. We took care to note how the district court explained that “[i]n this context, ‘distributed’ means that the network usage records are processed close to their sources before being transmitted to a centralized manager.” *Id.* at 1338. And we specifically approved of the district court’s “reading the ‘in a distributed fashion’ and the ‘close to the source’ of network information requirements into the term ‘enhance.’ ” *Id.* at 1340.

As explained by the patent, *this distributed enhancement* was a critical advancement over the prior art:

Importantly, the distributed data gathering, filtering and enhancements performed in the system 100 enables load distribution. Granular data can reside in the peripheries of the system 100, close to the information sources. This helps avoid [(*sic*)] reduce congestion in network bottlenecks but still allows the data to be accessible from a central location. In previous systems, all the network information flows to one location, making it very difficult to keep up with the massive record flows from the network devices and requiring huge databases. '065 patent at 4:33–42.

In other words, this claim entails an unconventional technological solution (*enhancing data in a distributed fashion*) to a technological problem (massive record flows which previously required massive databases). The solution requires arguably generic components, including network devices and “gatherers” which “gather” information. However, the claim's *enhancing limitation* necessarily requires that these generic components operate in an unconventional *1301 manner to achieve an improvement in computer functionality.

Amdocs at 1300–01 (emphasis added).

Here, Appellants have not persuasively shown that the instant claims on appeal entail applying “an unconventional technological solution (enhancing data in a distributed fashion) to a technological problem (massive record flows which previously required massive databases),” as found by the court in *Amdocs* at 1300.

Because we find Appellants have not established that claims 1–14 and 16–30 are directed to an *improvement* in the recited generic *computer* devices, processor, databases, and/or storage media (claims 1, 13, 16, and 28), we conclude that none of the claim limitations, viewed both individually and as an ordered combination, amount to significantly more than the judicial exception in order to sufficiently transform the nature of the claims

into patent-eligible subject matter.

In light of the foregoing, we conclude, under the *Mayo/Alice* analysis, that each of Appellants' claims 1–14 and 16–30, considered as a whole, is directed to a *patent-ineligible abstract idea* (under *step one*), and under *step two*, does not recite something *significantly more* to transform the nature of the claim into a patent-eligible application.

Accordingly, for the reasons discussed above, we sustain the Examiner's rejection under 35 U.S.C. § 101 of claims 1–14 and 16–30, as being directed to a judicial exception, without significantly more.⁹

Reply Brief

To the extent Appellants *may* advance new arguments in the Reply Brief not in response to a shift in the Examiner's position in the Answer, we note arguments raised in a Reply Brief that were not raised in the Appeal Brief or are not responsive to arguments raised in the Examiner's Answer will not be considered except for good cause. *See* 37 C.F.R. § 41.41(b)(2).

CONCLUSION

The Examiner did not err in rejecting claims 1–14 and 16–30 under 35 U.S.C. § 101, as being directed to a judicial exception, without significantly more.

⁹ To the extent Appellants have not advanced separate, substantive arguments for particular claims, or other issues, such arguments are waived. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Appeal 2017-006298
Application 14/139,877

DECISION

We affirm the Examiner's decision rejecting claims 1–14 and 16–30 under 35 U.S.C. § 101.

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). *See* 37 C.F.R. § 41.50(f).

AFFIRMED