



UNITED STATES PATENT AND TRADEMARK OFFICE

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

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/079,505	04/04/2011	Neal B. Brady	4672-11016AUS	9878
12684	7590	01/30/2019	EXAMINER	
Lempia Summerfield Katz LLC/CME 20 South Clark Street Suite 600 Chicago, IL 60603			PRESTON, JOHN O	
			ART UNIT	PAPER NUMBER
			3691	
			NOTIFICATION DATE	DELIVERY MODE
			01/30/2019	ELECTRONIC

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

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

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

mail@lsk-iplaw.com
docket-us@lsk-iplaw.com
pair_lsk@firsttofile.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte NEAL B. BRADY

Appeal 2017-010554
Application 13/079,505
Technology Center 3600

Before ST. JOHN COURTENAY III, JOHNNY A. KUMAR, and
STEVEN M. AMUNDSON, *Administrative Patent Judges*.

COURTENAY, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant¹ appeals under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1–23, which constitute all the claims pending in this application. We have jurisdiction over the pending claims under 35 U.S.C. § 6(b).

We affirm.

¹ According to Appellant, the real party in interest is the Chicago Mercantile Exchange, Inc. App. Br. 2.

STATEMENT OF THE CASE

Embodiments of Appellant’s invention relate “generally to a method and a system for receiving and processing financial instrument trading instructions or market actions via a messaging, e.g. Instant Messaging (IM), interface and for providing feedback using the same.” Spec. ¶ 1.

Exemplary Claim

1. A method for communicating a market action to at least one market participant through an electronic facility platform, the method comprising:

a. receiving a communication via a communications network;

b. scanning the communication using the computerized system to identify at least one of a predefined plurality of keywords, each of said plurality of keywords corresponding to a respective market action to be addressed by the market participant;

c. when the communication contains at least one of a predefined plurality of keywords, parsing the communication to identify at least one parameter corresponding to the respective market action, *and identify one or more outrights specified in the communication and further, based on the identified one or more outrights, identify a set of exchange defined spreads formed by the one or more outrights, regardless of sequence in which the one or more outrights are presented in the communication by analyzing each permutation of the order of the one or more outrights to determine those permutations which match an exchange defined spread included in an exchange provided library of common combinations of one or more outrights;*

d. converting the communication into a financial information exchange compliant communication selected from one of a FIX protocol, a FIXML protocol, or a FPML protocol compliant communication reflecting the at least one parameter; and

e. transmitting the financial information exchange compliant communication to the at least one market participant via a financial information exchange compliant communication network.

App. Br. 18 (Claims Appendix) (Contested limitations emphasized).

Rejections

- A. Claims 1–23 are rejected under 35 U.S.C. § 101, as being directed to a judicial exception, without significantly more. Final Act. 6.
- B. Claims 1–23 are rejected under pre-AIA 35 U.S.C. § 103(a), as being obvious over the combined teachings and suggestions of Bryan et al. (US 2010/0082755 A1, Apr. 1, 2010) (“Bryan”) and Ben-Levy et al. (US 7,447,654 B2, Nov. 4, 2008) (“Ben-Levy”). Final Act. 7–10.

Issues on Appeal

- A. Did the Examiner err in rejecting claims 1–23 under 35 U.S.C. § 101, as being directed to a judicial exception, without significantly more?
- B. Did the Examiner err in rejecting claims 1–23 under 35 U.S.C. § 103, as being obvious over the cited combination of Bryan and Ben-Levy?

ANALYSIS

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

Rejection A Under 35 U.S.C. § 101

Principles of Law

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 implicit exceptions: “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable. *E.g., Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014).

In determining whether a claim falls within an excluded category, we are guided by the Supreme Court’s two-step framework, described in *Mayo* and *Alice*. *Id.* at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with that framework, we first determine what concept the claim is “directed to.” *See Alice*, 573 U.S. at 219 (“On their face, the claims before us are drawn to the concept of intermediated settlement, i.e., the use of a third party to mitigate settlement risk.”); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (“Claims 1 and 4 in petitioners’ application explain the basic concept of hedging, or protecting against risk.”).

Concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611);

mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 69 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as “molding rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 192 (1981)); “tanning, dyeing, making waterproof cloth, vulcanizing India rubber, smelting ores” (*id.* at 184 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1854))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))). In *Diehr*, the claim at issue recited a mathematical formula, but the Supreme Court held that “[a] claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula.” *Diehr*, 450 U.S. at 176; *see also id.* at 192 (“We view respondents’ claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula.”). Having said that, the Supreme Court also indicated that a claim “seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, . . . and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment.” *Id.* (citing *Benson* and *Flook*); *see, e.g., id.* at 187 (“It is now commonplace that an application of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.”).

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 (quotation marks omitted). “A

claim that recites an abstract idea must include ‘additional features’ to ensure ‘that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].’” *Id.* (quoting *Mayo*, 566 U.S. at 77). “[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention.” *Id.*

USPTO January 7, 2019 Revised Section 101 Memorandum

The USPTO recently published revised guidance on the application of § 101. *See* 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) (“Memorandum”). *This new guidance is applied in this opinion.* Under the 2019 Memorandum guidance, we first look to whether the claim recites:

(1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, mental processes, or certain methods of organizing human activity such as a fundamental economic practice or managing personal behavior or relationships or interactions between people); and

(2) additional elements that integrate the judicial exception into a practical application (*see* Manual of Patent Examining Procedure (“MPEP”) §§ 2106.05(a)–(c), (e)–(h)).² 84 Fed. Reg. at 51–52, 55.

A claim that integrates a judicial exception into a practical application applies, relies on, or uses the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a

² All references to the MPEP are to the Ninth Edition, Revision 08–2017 (rev. Jan. 2018).

drafting effort designed to monopolize the judicial exception. 84 Fed. Reg. at 54. When the judicial exception is so integrated, then the claim is not directed to a judicial exception and is patent eligible under § 101. 84 Fed. Reg. at 54.

Only if a claim: (1) recites a judicial exception, and (2) does not integrate that exception into a practical application, do we then evaluate whether the claim provides an inventive concept. 84 Fed. Reg. at 56; *Alice*, 573 U.S. at 217-18. For example, we 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, and conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception. 84 Fed. Reg. at 56.

Because there is no single definition of an “abstract idea” under *Alice* step 1, the PTO has recently synthesized, for purposes of clarity, predictability, and consistency, key concepts identified by the courts as abstract ideas to explain that the “abstract idea” exception includes the following three groupings:

1. Mathematical concepts—mathematical relationships, mathematical formulas or equations, mathematical calculations;
2. Mental processes—concepts performed in the human mind (including an observation, evaluation, judgment, opinion); and
3. Certain methods of organizing human activity—fundamental economic principles or practices (including hedging, insurance, mitigating risk); commercial or legal interactions (including agreements in the form of contracts; legal obligations; advertising,

marketing or sales activities or behaviors; business relations); managing personal behavior or relationships or interactions between people (including social activities, teaching, and following rules or instructions).

According to the Memorandum, “claims that do not recite [subject] matter that falls within these enumerated groupings of abstract ideas should not be treated as reciting abstract ideas,” except in rare circumstances. Even if the claims recite any one of these three groupings of abstract ideas, these claims are still not “directed to” a judicial exception (abstract idea), and thus are patent eligible, if “the claim as a whole integrates the recited judicial exception into a practical application of that judicial exception.” *See* Memorandum, 84 Fed. Reg. at 53.

“Integration into a practical application” requires an additional element or a combination of additional elements in the claim to apply, rely on, or use the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the exception. *Id.*

For example, limitations that **are** indicative of “integration into a practical application” include:

1. Improvements to the functioning of a computer, or to any other technology or technical field – *see* MPEP § 2106.05(a);
2. Applying the judicial exception with, or by use of, a particular machine – *see* MPEP § 2106.05(b);
3. Effecting a transformation or reduction of a particular article to a different state or thing – *see* MPEP § 2106.05(c); and
4. Applying or using the judicial exception in some other meaningful way beyond generally linking the use of the judicial exception to a particular technological environment, such that the claim as a whole is more than a drafting effort designed to monopolize the exception – *see* MPEP § 2106.05(e).

In contrast, limitations that are **not** indicative of “integration into a practical application” include:

5. Adding the words “apply it” (or an equivalent) with the judicial exception, or mere instructions to implement an abstract idea on a computer, or merely uses a computer as a tool to perform an abstract idea – *see* MPEP § 2106.05(f);
6. Adding insignificant extra-solution activity to the judicial exception – *see* MPEP § 2106.05(g); and
7. Generally linking the use of the judicial exception to a particular technological environment or field of use – *see* MPEP 2106.05(h).

See Memorandum, 84 Fed. Reg. at 54–55 (“Prong Two”).

The Examiner’s Rejection A Under 35 U.S.C. § 101

The Examiner concludes claims 1–23 are directed to a judicial exception, because the claims are:

directed to the abstract idea of receiving a communication, identifying key information in the communication, converting the communication into a suitable format, and transmitting the communication. The method and/or system is similar to concepts that have been identified as abstract by the courts, such as using categories to organize, store, and transmit information in *Cyberfone*^[3] or comparing new and stored information and using rules to identify options in *SmartGene*^[4].

³ The Examiner is referring to *Cyberfone Systems, LLC v. CNN Interactive Group, Inc.*, 558 F. App’x 988, 993 (Fed. Cir. 2014) (nonprecedential) (receiving or transmitting data over a network, e.g., using the Internet to gather data, is abstract).

⁴ The Examiner is referring to *SmartGene, Inc. v. Advanced Biological Laboratories, SA*, 555 F. App’x 950, 955 (Fed. Cir. 2014) (nonprecedential) (“Whatever the boundaries of the ‘abstract ideas’ category, the claim at issue

Final Act. 6.⁵

The Examiner finds the claims do not include additional elements that amount to significantly more than the judicial exception, because:

the additional elements when considered both individually and as a combination do not amount to significantly more than the abstract idea. The method and/or system is recited at a high level of generality and only performs *generic functions* of manipulating information and transmitting that information to a remote subscriber computer. *Generic computers performing generic computer functions, without an inventive concept, do not amount to significantly more than the abstract idea.* The limitations describe a field of use that attempt to limit the abstract idea to a particular technological environment.

Final Act. 6 (emphasis added).

For the aforementioned reasons, the Examiner concludes that claims 1–23 are not patent eligible under 35 U.S.C. § 101.

Under the revised USPTO January 7, 2019 Section 101 policy Memorandum, we consider the following points of law:

Memorandum (1): Are the claims directed to any **judicial exceptions**, including certain groupings of abstract ideas (i.e., mathematical concepts,

here involves a mental process excluded from section 101: the mental steps of comparing new and stored information and using rules to identify medical options.”). In *SmartGene*, step (c) of Advanced Biological Laboratories’ claim 1 recites: “generating in said computing device advisory information for one or more therapeutic treatment regimens in said ranked listing based on said patient information and said expert rules.” *Id.* at 952.

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).

certain methods of organizing human interactions such as a fundamental economic practice, or mental processes)?

Regarding Memorandum (1), our view is that the Examiner did not err in concluding that each of claims 1–23 on appeal is directed at least to the abstract idea of “receiving a communication, identifying key information in the communication, converting the communication into a suitable format, and transmitting the communication.” Final Act. 6.

We note the preamble of claim 1 is expressly directed to “[a] method for communicating a *market action* to at least *one market participant* through an electronic facility platform,” which informs our view that the claim considered as a whole is directed to a certain method of organizing human behavior, i.e., a fundamental economic practice. (emphasis added). The body of claim 1 similarly reinforces our view because it is directed to the last step (e) *result* of “transmitting the financial information exchange compliant communication to the at least one market participant via a financial information exchange compliant communication network,” which is also a fundamental economic practice. To the extent Appellant advances arguments regarding *Alice* step one, which also fall under Memorandum (2) (covering MPEP §§ 2106.05(a)–(c) and (e)–(h)), we address these arguments *infra*.

Regarding Memorandum (2), and for the reasons which follow, we conclude that Appellant’s claims 1–23 **do not integrate the judicial exception into a practical application**. See MPEP §§ 2106.05(a)–(c) and (e)–(h). Applying the revised 101 Memorandum guidance, we address these “practical application” MPEP sections *seriatim*.

MPEP § 2106.05(a) “Improvements to the Functioning of a Computer or to Any Other Technology or Technical Field”

This section of the MPEP guides: “In determining patent eligibility, examiners should consider whether the claim ‘purport(s) to improve the functioning of the computer itself’ or ‘any other technology or technical field.’ . . . While improvements were evaluated in *Alice Corp* as relevant to the search for an inventive concept (Step 2B), several decisions of the Federal Circuit have also evaluated this consideration when determining whether a claim was directed to an abstract idea (Step 2A).”

The MPEP instructs: “Thus, an examiner may evaluate whether a claim contains an improvement to the functioning of a computer or to any other technology or technical field **at Step 2A or Step 2B**, as well as when considering whether the claim has such self-evident eligibility that it qualifies for the streamlined analysis.” MPEP § 2106.05(a) (emphasis added).

Regarding the purported *improvements* offered by the claimed invention, Appellant urges:

the claims represent an *improvement* to the technology surrounding centralized transaction processing systems, such as trading systems, which *need to make rapid calculations*, and are solved by means of a *technical solution*, the claimed analyzing which analyzes and compares permutations of outright identified in the communication and determines when a given permutation matches an exchange defined spread included in a library thereof, thereby permitting communications to include spread specifications in any order but still be converted to exchange defined spreads for further processing.

App. Br. 10–11 (emphasis added).

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

The *improvement* is *automating the steps* that were previously done manually to take advantage of the inherent *speed of the computer*. . . . Furthermore, Appellant did not explain how the claimed invention *improves the technology* surrounding centralized transaction processing systems. Appellant also did not identify a technical problem solved by the claimed invention.

Ans. 30 (emphasis added).

We agree with the Examiner (*id.*), because we find any resultant speed increase in the method and system of Appellant’s invention comes from a “general-purpose computer, rather than from the patented method itself,” and does “not materially alter the patent eligibility of the claimed [invention].” *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1095 (Fed. Cir. 2016) (citation omitted).

In reviewing the record, we 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 Appellant’s 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,” such as considered by the court in *DDR Holdings LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014) (emphasis added).

MPEP § 2106.05(b) Particular Machine, and

MPEP § 2106.05(c) Particular Transformation

Section 2106.05(c) of the MPEP guides: “Another consideration when determining whether a claim recites significantly more is whether

the claim effects a transformation or reduction of a particular article to a different state or thing.” “[T]ransformation and reduction of an article ‘to a different state or thing’ is the clue to patentability of a process claim that does not include particular machines.” *Bilski v. Kappos*, 561 U.S. 593, 658 (2010) (quoting *Gottschalk v. Benson*, 409 U.S. 63, 70, 175 (1972)). If such a transformation exists, the claims are likely to be significantly more than any recited judicial exception. *Bilski* emphasizes that although the transformation of an *article* is an important clue, it is not a stand-alone test for eligibility. MPEP § 2106.05(c).

Regarding Memorandum (2), we note Appellant advances no arguments in the Briefs that are directed to the *Bilski* machine-or-transformation test, which would only be applicable to the method (process) claims on appeal.

To the extent Appellant may contend that claim 1 transforms data by converting an unstructured communication (e.g., an Instant Message) into a financial information exchange compliant communication (i.e., the transformation of *data*), our reviewing court guides that “[t]he mere manipulation or reorganization of *data*, however, does not satisfy the transformation prong.” *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1375 (Fed. Cir. 2011) (emphasis added). Therefore, we conclude method claim 1 fails to satisfy the transformation prong of the *Bilski* machine-or-transformation test. See MPEP § 2106.05(c) “Particular Transformation.”

Nor does Appellant argue that the method claims on appeal are tied to a particular machine. See MPEP § 2106.05(b) “Particular Machine.” Arguments not made are waived. See 37 C.F.R. § 41.37(c)(1)(iv).

MPEP § 2106.05(e) Other Meaningful Limitations

This section of the MPEP guides:

Diamond v. Diehr provides an example of a claim that recited *meaningful limitations* beyond generally linking the use of the judicial exception to a particular technological environment. 450 U.S. 175, 209 USPQ 1 (1981). In *Diehr*, the claim was directed to the use of the Arrhenius equation (an abstract idea or law of nature) in an automated process for operating a rubber-molding press. 450 U.S. at 177-78, 209 USPQ at 4. The Court evaluated additional elements such as the steps of installing rubber in a press, closing the mold, constantly measuring the temperature in the mold, and automatically opening the press at the proper time, and found them to be *meaningful* because they sufficiently limited the use of the mathematical equation to the practical application of molding rubber products. 450 U.S. at 184, 187, 209 USPQ at 7, 8. In contrast, the claims in *Alice Corp. v. CLS Bank International* did not *meaningfully limit* the abstract idea of mitigating settlement risk. 573 U.S. 134 S. Ct. 2347, 110 USPQ2d 1976 (2014). In particular, the Court concluded that the additional elements such as the data processing system and communications controllers recited in the system claims did not *meaningfully* limit the abstract idea because they merely linked the use of the abstract idea to a particular technological environment (i.e., “implementation via computers”) or were well-understood, routine, conventional activity.

MPEP § 2106.05(e) (emphasis added).

Appellant contends the claims recite *meaningful* limitations:

The combination of steps recited show that the claim is not to the idea of receiving a communication, identifying key information in the communication, converting the communication into a suitable format, and transmitting the communication requirement, but rather that the steps *impose meaningful limits* that allow for identifying particular combinations within a specified set of arbitrarily ordered elements. Thus, the claim amounts to significantly more than the judicial exception.

App. Br. 10 (emphasis added).

In support, Appellant cites to *McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299 (Fed. Cir. 2016). App. Br.10.

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

The claims recite the additional element of a communication network. The limitations describe *a field of use* that attempt to limit the abstract idea to a particular technological environment. The type of information being manipulated does not impose *meaningful limitations* or render the idea less abstract. Looking at the elements as a combination does not add anything more than the elements analyzed individually.

Ans. 2 (emphasis added).

We do not find persuasive Appellant's attempt to analogize the claims to the subject claims considered by the court in *McRO*. App. Br.10.

We note the subject claim considered by the *McRO* court concerned a method for automatically animating lip synchronization and facial expressions. *McRO*, 837 F.3d at 1303. The *McRO* court concluded the subject claims did not recite an abstract idea because the computer animation *improved* the prior art through the use of *rules*, rather than artists, to set morph weights and transitions between phonemes. *Id.* at 1308. Thus, the claimed invention in *McRO* allowed for computer performance of animation steps that previously had to be performed by human animators. *Id.* at 1309. The subject claims in *McRO* used "limited *rules* in a process specifically designed to achieve an improved technological result" over "existing, manual 3-D animation techniques." *Id.* at 1316 (emphasis added).

Here, Appellant's claimed invention does not apply positively recited *rules, per se*. The invention under appeal merely adapts to a technological

setting (e.g., comprising generic processor devices, communication networks, and/or memory devices) the broad concept of converting an unstructured communication (e.g. Instant Messaging (IM)) into a structured *financial information exchange compliant* communication that is transmitted to at least one market participant via a financial information exchange compliant communication network. *See* Claim 1; Spec. ¶¶ 18–24 for context. *See also* independent claim 16, and independent claims 17 and 18, which recite similar language of commensurate scope.

Thus, it is our view that Appellant’s claims merely implement generic computer components to perform the recited functions. We emphasize that *McRO* (837 F.3d at 1312) also guides that “[t]he abstract idea exception prevents patenting a *result* where ‘it matters not by what process or machinery the result is accomplished.’” (Quoting *O’Reilly v. Morse*, 56 U.S. 62, 113 (1854)). Emphasis added. Regarding Appellant’s reliance on *Bascom Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016), we emphasize the *Bascom* court guides that implementing “[a]n abstract idea on ‘an Internet computer network’ or on a generic computer is still an abstract idea.” *Id.* at 1348.⁶

⁶ Further regarding the use of the recited generic computer components the Supreme Court has held “the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.” *Alice*, 573 U.S. at 223. 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., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015) (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

Applying this reasoning here, we conclude Appellant’s claims do not add *meaningful limitations* beyond generally linking the use of the judicial exception to a particular technological environment.

MPEP §2106.05(f) Mere Instructions to Apply an Exception

For the reasons discussed above, we conclude Appellant’s claims invoke generic computer components merely as a tool in which the *computer instructions* apply the judicial exception (i.e., a fundamental economic practice) — “[a] method for communicating a *market action* to at least *one market participant* through an electronic facility platform” and “transmitting the financial information exchange compliant communication to the at least one market participant via a financial information exchange compliant communication network.” (claim 1).

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., LLC v. Alstom S.A.*, 830 F.3d 1350, 1355 (Fed. Cir. 2016) (“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 Fin. 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.”).

MPEP § 2106.05(g) Insignificant Extra-Solution Activity

We conclude the step of “scanning the communication using the computerized system to identify at least one of a predefined plurality of keywords, each of said plurality of keywords corresponding to a respective market action to be addressed by the market participant” (claim 1), is a step of *data gathering*. Data gathering, as performed by the steps or function in Appellant’s 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 Supreme Court 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). On this record, we are of the view that Appellant’s claims do not operate the recited generic computer components in an unconventional manner to achieve an improvement in computer functionality, as discussed above.

MPEP § 2106.05(h) Field of Use and Technological Environment

“[T]he Supreme Court has stated that, even if a claim does not wholly *preempt* 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.*” *Ultramercial Inc. v. Hulu LLC*, 722 F.3d 1335, 1346 (Fed. Cir. 2013) (citations omitted) (emphasis added).

Appellant argues “the present claims are not directed to an abstract idea and the claimed invention is not a mere statement of a general concept. In particular, Appellant’s claims do not relate to, nor do they *preempt*, an abstract idea.” App. Br. 5–6 (emphasis added). In support, Appellant further contends:

As opposed to *preempting* the entire idea of receiving of a communication, identifying key information in the communication, converting the communication into a suitable format, and transmitting the communication, the claims are instead directed to a novel and patentable specific application which identifies outright combinations specified in a communication based on scanning for predefined keywords and, regardless of the order in which those outright combinations appear in that communication, determines whether those outright combinations form exchange defined spread combinations and are, therefore, more likely to be tradeable against orders received from other participants, as opposed to custom user-defined combinations which are less likely to be tradeable.

App. Br. 6–7.

In the Answer, the Examiner disagrees with Appellant. The Examiner finds and concludes:

The claims recite the additional element of a communication network. The limitations describe *a field of use* that attempt to limit the abstract idea to a particular technological environment. The type of information being manipulated does not impose *meaningful limitations* or render the idea less abstract. Looking at the elements as a combination does not add anything more than the elements analyzed individually.

Ans. 2 (emphasis added).

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, 722 F.3d at 1346.

Therefore, we are not persuaded by Appellant’s argument regarding the absence of complete preemption. *See* App. Br. 6–7.

For at least the aforementioned reasons, we are not persuaded the Examiner erred in concluding that each of claims 1–23 on appeal is directed to an abstract idea. As discussed above, we conclude the claim language “[a] method for communicating a *market action* to at least *one market participant* through an electronic facility platform” and “transmitting the financial information exchange compliant communication to the at least one market participant via a financial information exchange compliant communication network” (claim 1) inform our view that the claims *considered as a whole* are directed to a certain method of organizing human behavior, i.e., a fundamental economic practice. (emphasis added).

Accordingly, for the reasons discussed above, we conclude Appellant’s **claims do not include additional elements that integrate the judicial exception into a practical application** (*see* MPEP §§ 2106.05(a)–(c), (e)–(h), as discussed above).

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:

Memorandum (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**

Memorandum (4), simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

Appellant contends:

the parsing, scanning and identification using a library of combinations as claimed by Appellant, have NOT been used before and therefore are *not well understood, routine or conventional in the art*. Furthermore, the Examiner is again reminded that “[i]t is important to remember that a new combination of steps in a process may be patent eligible even though all the steps of the combination were individually well known and in common use before the combination was made (Diehr). Thus, it is particularly critical to address the combination of *additional elements*, because while individually-viewed elements may not appear to add significantly more, those additional elements when viewed in combination may amount to significantly more than the exception by meaningfully limiting the judicial exception.”

App. Br. 9 (emphasis added).

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

Examiner respectfully disagrees and explains that “[t]he limitations of the parsing, scanning, and identification of data *are part of the identified abstract [idea] and are not ‘additional elements.’* Elements of the abstract idea cannot also provide significantly more than the abstract idea itself . . . [s]ince the parsing, scanning, and identification are not ‘additional elements.’” Ans. 7 (emphasis added).

The Examiner additionally provides two cases in support of the judicial exception (i.e., abstract idea) identified by the Examiner: “The method and/or system is similar to concepts that have been identified as abstract by the courts, such as using categories to organize, store, and transmit information in *Cyberfone* or comparing new and stored information and using rules to identify options in *SmartGene*.” Final Act. 6.

In the Reply Brief, Appellant again asserts: “Here, the specifically disclosed and claimed parsing, scanning and identification are *additional elements* that provide ‘something more’ than mere receiving of a communication, identifying key information in the communication, converting the communication into a suitable format, and transmitting the communication.” Reply Br. 5 (emphasis added).

Because Appellant’s contention is not responsive to the Examiner’s legal conclusion that the claimed “parsing, scanning, and identification of data are part of the identified abstract [idea] and are not ‘additional elements’” (Ans. 7), we find Appellant’s contentions unavailing.

We additionally find Appellant’s new arguments in the Reply Brief regarding *Trading Technologies International, Inc. v. CQG, INC.*, 675 F. App’x 1001 (Fed. Cir. 2017), are not in response to any shift in the Examiner’s position in the Answer and are therefore untimely. 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); *compare* App. Br. 1–17; Ans. 7–11 *with* Reply Br. 7–8.

We observe *Trading Technologies* was: (1) decided on January 18, 2017, several weeks before the Appeal Brief was filed on February 9, 2017,

and, (2) is non-precedential. In particular, Appellant has not shown good cause why we should consider Appellant's untimely arguments pertaining to *Trading Technologies* in the Reply Brief (7–8), regarding Rejection A of all claims on appeal.

However, in reviewing the record, we recognize that Appellant has not had the opportunity to argue *Berkheimer*, which was decided by the Federal Circuit on February 8, 2018. We note the Reply Brief was filed on August 9, 2017, over five months before the *Berkheimer* decision. Because *Berkheimer* (881 F.3d at 1369) and the subsequent USPTO *Berkheimer* Memorandum are intervening authorities, Appellant will be permitted to argue any new issues related to *Berkheimer* in a Request for Rehearing, under our procedural rule. See 37 C.F.R. § 41.52(a)(2) (“Appellant may present a new argument based upon a recent relevant decision of either the Board or a Federal Court.”).

However, on the record before us, Appellant has not shown that the claims on appeal add a specific limitation beyond the judicial exception that is not “well-understood, routine, and conventional” in the field (see MPEP § 2106.05(d)).

In light of the foregoing, we conclude, under the USPTO Revised 101 Guidance (Memorandum), that each of Appellant's claims 1–23, considered as a whole, is **directed to a patent-ineligible abstract idea that is not integrated into a practical application.**

Accordingly, for the reasons discussed above, we sustain the Examiner's rejection A under 35 U.S.C. § 101 of claims 1–23.⁷

Rejection B of Independent Claim 1 Under 35 U.S.C. § 103(a)

Issue: Under 35 U.S.C. § 103(a), did the Examiner err by finding the cited combination of Bryan and Ben-Levy would have taught or suggested the contested conditional limitation:

c. **when** the communication contains at least one of a predefined plurality of keywords . . . identify one or more *outrights specified in the communication and further, based on the identified one or more outrights, identify a set of exchange defined spreads formed by the one or more outrights, regardless of sequence in which the one or more outrights are presented in the communication by analyzing each permutation of the order of the one or more outrights to determine those permutations which match an exchange defined spread included in an exchange provided library of common combinations of one or more outrights*[,]

within the meaning of independent claim 1?⁸ (emphasis added).

The Examiner finds that Bryan does not explicitly disclose:

identify[ing] one or more *outrights* specified in the communication and further, based on the identified one or more *outrights*, identify a set of exchange defined *spreads*, formed by

⁷ To the extent Appellant 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).

⁸ We give the contested claim limitations the broadest reasonable interpretation (“BRI”) consistent with the Specification. *See In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997).

the one or more *outrights*, regardless of sequence in which the one or more *outrights* are presented in the communication by analyzing each permutation of the order of the one or more *outrights* to determine those permutations which match an exchange defined *spread* included in an exchange provided library of common combinations of one or more *outrights*.

Final Act. 8 (emphasis added).

The Examiner further finds “Ben-Levy discloses the auction system that identifies an *outright* and allows a delay to search results in search of a *spread* (See Ben-Levy Col 24 Ln 8; col 19, lines 30-65).” Final Act. 8 (emphasis added). However, after reviewing the cited portions of the evidence relied upon by the Examiner, we concur with Appellant that the Examiner’s findings are based upon a misinterpretation of the terms “spread” and “outright” as used and described in Ben-Levy.

We have reviewed Appellant’s arguments in the Briefs, the Examiner’s obviousness rejection, and the Examiner’s response to Appellant’s arguments. For at least the following reasons, Appellant has persuaded us the Examiner erred regarding the obviousness rejection of claims 1–23.

Ben-Levy simply has nothing to do with identifying possible *spread* combinations based on identified *outrights*. Instead, Ben-Levy is directed to a bond auctioning system which enables bidders to submit bids to transact in particular bonds. Ben-Levy does disclose that a user may “associate one or more keywords with the proposal, to facilitate rapid and efficient organization, monitoring, and searching of multiple offerings. Standard keywords may also be designated by a user’s firm, for example, so that a manager, administrator, or book keeper may easily locate particular offers or sets of offers.” *See* Ben-Levy, Col. 19, line 66 - Col. 20, line 4. But there is no disclosure of identifying *outrights* from a communication nor, based thereon, identifying *spread*

combinations formed thereby, let alone doing so by analyzing each permutation of the order of the one or more *outrights* to determine those permutations which match an exchange defined *spread* included in an exchange provided library of common combinations of one or more outrights as claimed.

App. Br. 14 (emphasis added).

In particular, it appears the Examiner has used a claim term as a search keyword to find the literal term “spread” as used in Ben-Levy (e.g., col. 19, l. 40), as compared to the literal term “spread” as recited in Appellant’s claims (*see* claim 1: “exchange defined spread”). However, the computed “reserve spreads” in Ben-Levy refer to basis points (1/100 of a percent) relative to a benchmark interest rate, and do not have the same meaning as the term “spread” as used in Appellant’s Specification (and claims) to refer to **combinations of multiple option contracts** to realize a **trading strategy**. *See* Table of “Spread Types” as included in paragraph 65 of Appellant’s Specification. *Cf.* “call butterfly” and “put butterfly” spread option strategies, with straddles, strangles, and condor spread option strategies.⁹

Similarly, the use of the term “outright” in Ben-Levy (e.g., “the offeror is given another opportunity to elect, or to confirm, whether to offer

⁹ For example, *see Wikipedia*: “The iron condor is an option trading strategy utilizing two vertical spreads – a put spread and a call spread with the same expiration and four different strikes. A long iron condor is essentially selling both sides of the underlying instrument by simultaneously shorting the same number of calls and puts, then covering each position with the purchase of further out of the money call(s) and put(s) respectively. The converse produces a short iron condor. The position is so named because of the shape of the profit/loss graph, which loosely resembles a large-bodied bird, such as a condor.”

the bond lot . . . for *outright* sale as well as auction” — col. 19, ll. 46–48 (emphasis added)), does not have the same meaning as the claim term “outright” as used in Appellant’s Specification and claims. *See* Claim 1; Spec. ¶ 23: “The system allows users to build spreads (combinations of multiple options contracts which are commonly referred to as the ‘legs’ or ‘*outrights*’ of the spread), parses the *outrights*, and analyzes the permutations” (emphasis added).

Therefore, on this record, we find a preponderance of the evidence supports Appellant’s contentions, as discussed above regarding rejection B under 35 U.S.C. § 103(a). Accordingly, we are constrained on this record to reverse the Examiner’s Rejection B of independent claim 1, and also Rejection B of remaining independent claims 16, 17, and 18, which each recite the contested limitation in similar form having commensurate scope. Because we have reversed the Examiner’s Rejection B of each independent claim on appeal, we also reverse the Examiner’s Rejection B of each associated dependent claim.

Reply Brief

Regarding Rejection A under 35 U.S.C. § 101, to the extent Appellant *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).

CONCLUSIONS

The Examiner did not err in rejecting claims 1–23 under 35 U.S.C. § 101, as being directed to a judicial exception, without significantly more.

The Examiner erred in rejecting claims 1–23 under 35 U.S.C. § 103(a), as being obvious over the cited combination of Bryan and Ben-Levy.¹⁰

DECISION

We affirm the Examiner’s decision rejecting claims 1–23 under 35 U.S.C. § 101.

We reverse the Examiner’s decision rejecting claims 1–23 under pre-AIA 35 U.S.C. § 103(a).

Because we have affirmed at least one ground of rejection with respect to each claim on appeal, the Examiner’s decision is affirmed. *See* 37 C.F.R. § 41.50(a)(1).

¹⁰ The Supreme Court guides: “[t]he ‘novelty’ of any element or steps in a process, or even of the process itself, is of *no relevance* in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter.” *Diehr*, 450 U.S. at 188–89 (emphasis added). Our reviewing court further emphasizes that “[e]ligibility and novelty are separate inquiries.” *Two-Way Media Ltd. v. Comcast Cable Commc’ns, LLC*, 874 F.3d 1329, 1340 (Fed. Cir. 2017); *see also Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1263 (Fed. Cir. 2016) (holding that “even assuming” that a particular claimed feature was novel does not “avoid the problem of abstractness”).

Appeal 2017-010554
Application 13/079,505

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