



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.
14/078,393	11/12/2013	Jack Shilian Jia	TSPR-00201	4346
34051	7590	01/30/2019	EXAMINER	
Stevens Law Group 1754 Technology Drive Suite #226 San Jose, CA 95110			ROSEN, NICHOLAS D	
			ART UNIT	PAPER NUMBER
			3625	
			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):

uspto@stevenslawgroup.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JACK SHILIAN JIA, ROBERT DAVID BRADSHAW JR.,
YAN CARRIE JIAO, YUWEI GUI, and SCOTT BRENNER BRAVE

Appeal 2018-000490
Application 14/078,393
Technology Center 3600

Before JAMES R. HUGHES, JOHN A. EVANS, and LARRY J. HUME,
Administrative Patent Judges.

EVANS, *Administrative Patent Judge.*

DECISION ON APPEAL

Appellants¹ seek our review under 35 U.S.C. § 134(a) of the Examiner's final rejection of Claims 1, 10, and 21. App. Br. 6. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.²

¹ Appellants state the real party in interest is Trusper, Inc. App. Br. 2.

² Rather than reiterate the arguments of Appellants and the Examiner, we refer to the Appeal Brief (filed March 8, 2017, "App. Br."), the Reply Brief (filed October 17, 2017, "Reply Br."), the Examiner's Answer (mailed September 14, 2017, "Ans."), the Final Action (mailed January 10, 2017,

STATEMENT OF THE CASE

The claims relate to methods, systems, and computer program products for trusted social networking. *See* Abstract.

Invention

Claims 1, 10, and 21 are independent. An understanding of the invention can be derived from a reading of Claim 1, which is reproduced below with some formatting added:

1. A method of determining which member-submitted postings within a computerized social network are of a higher quality and should be served more often than other member-submitted postings within the computerized social network, the method comprising:

storing, by a computerized server, a plurality of items within a database, each item of the plurality of items comprising a member-submitted posting within a computerized social network and potentially being of interest to a human member of the computerized social network;

determining, by the computerized server, an initial distribution of a quality belief curve for each item of the plurality of items based on one or more distributions of quality belief curves corresponding to one or more similar items contained within the database;

replacing, by the computerized server, the initial distribution of the quality belief curve for each item of the plurality of items with an updated distribution of the quality belief curve for the item based on member behavior with

“Final Act.”), and the Specification (filed November 12, 2013, “Spec.”) for their respective details.

respect to the item after the item is served to one or more human members of the computerized social network;

generating, by the computerized server, a quality score for each item in the plurality of items, the quality score being at least partially derived from a most recent distribution of the quality belief curve for the item and being indicative of a likelihood that the item is of interest to the human member of the computerized social network;

for each item of a subset of items included in the plurality of items, biasing, by the computerized server, a chance of selecting the item upward as a function of the corresponding quality score for the item so as to increase the chance of selecting the item during a random selection process;

subsequent to the biasing, randomly selecting, by the computerized server, one or more items from among the plurality of items; and

serving, by the computerized server, the one or more items to a computing device in the possession of the human member of the computerized social network.

*Rejection*³

Claims 1, 10, and 21 stand rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter without significantly more.⁴ Final Act. 3–8.

³ The present application, filed November 12, 2013, i.e., after March 16, 2013, claims the priority of Provisional Application US 61/724,877, filed prior to March 16, 2013. Therefore, the present application was examined under the pre-AIA first to invent provisions. Final Act. 2.

⁴ The Examiner finds each claim recites non-obvious subject matter. Final Act. 8–11.

ANALYSIS

We have reviewed the rejections of Claims 1, 10, and 21 in light of Appellants' arguments that the Examiner erred. We have considered in this decision only those arguments Appellants actually raised in the Briefs. Any other arguments which Appellants could have made but chose not to make in the Briefs are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(iv). We are not persuaded that Appellants identify reversible error. Upon consideration of the arguments presented in the Appeal Brief and Reply Brief, we agree with the Examiner that all the pending claims are unpatentable. We adopt as our own the findings and reasons set forth in the rejection from which this appeal is taken and in the Examiner's Answer, to the extent consistent with our analysis below. We provide the following explanation to highlight and address specific arguments and findings primarily for emphasis. We consider Appellants' arguments *seriatim*, as they are presented in the Brief, pages 6–11.

CLAIMS 1, 10, AND 21: INELIGIBLE SUBJECT MATTER

Appellants argue all claims as a group in view of the limitations of Claim 1 and the commensurate limitations of Claims 7 and 13. *See* App. Br. 6–11. Therefore, we decide the appeal of the § 101 rejections with reference to Claim 1, and refer to the rejected claims collectively herein as “the claims.” *See* 37 C.F.R. § 41.37(c)(1)(iv); *In re King*, 801 F.2d 1324, 1325 (Fed. Cir. 1986).

Appellants do not “concede that claims 1, 10, and 21 are ‘directed to’ the abstract idea identified by the Office,” but contend their “arguments are

better expressed in the context of the second step of [the *Alice*] analysis.”
App. Br. 7. In view of the 2019 Revised Guidance,⁵ we conduct a full
analysis, including each step.

35 U.S.C. § 101

Section 101 provides that a patent may be obtained for “any new and
useful process, machine, manufacture, or composition of matter, or any new
and useful improvement thereof.” 35 U.S.C. § 101. The Supreme Court has
long recognized, however, that § 101 implicitly excludes “[l]aws of nature,
natural phenomena, and abstract ideas” from the realm of patent-eligible
subject matter, as monopolization of these “basic tools of scientific and
technological work” would stifle the very innovation that the patent system
aims to promote. *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. 208, 216
(2014) (quoting *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*,
569 U.S. 576, 589 (2013)); see also *Mayo Collaborative Servs. v.*
Prometheus Labs., Inc., 566 U.S. 66, 72–78 (2012); *Diamond v. Diehr*, 450
U.S. 175, 185 (1981).

Under the mandatory Revised Guidance, we reconsider whether
Appellants’ claims recite:

1. any **judicial exceptions**, including certain groupings of abstract ideas
(i.e., mathematical concepts, certain methods of organizing human
interactions such as a fundamental economic practice, or mental
processes), and

⁵ USPTO, 2019 Revised Patent Subject Matter Eligibility Guidance, 84(4)
Fed. Reg. 50–57 (January 7, 2019) (“Revised Guidance”).

2. **additional elements** that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h)).

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

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

Judicial Exceptions.

The Revised Guidance extracts and synthesizes key concepts identified by the courts as abstract ideas to explain that the abstract idea exception includes the following groupings of subject matter, when recited as such in a claim limitation(s) (that is, when recited on their own or *per se*): (a) mathematical concepts,⁶ i.e., mathematical relationships, mathematical formulas, equations,⁷ and mathematical calculations⁸; (b) certain methods of

⁶ *Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (“The concept of hedging . . . reduced to a mathematical formula . . . is an unpatentable abstract idea.”).

⁷ *Diehr*, 450 U.S. at 191 (“A mathematical formula as such is not accorded the protection of our patent laws”); *Parker v. Flook*, 437 U.S. 584, 594 (1978) (“[T]he discovery of [a mathematical formula] cannot support a patent unless there is some other inventive concept in its application.”).

⁸ *SAP America, Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1163 (Fed. Cir. 2018)

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)⁹; and (c) mental processes¹⁰—concepts performed in the human mind (including observation, evaluation, judgment, opinion).¹¹

Claim 1 recites, *inter alia*, (a) “determining, by the computerized server, an initial distribution of a quality belief curve for each item,” and

(holding that claims to a “series of mathematical calculations based on selected information” are directed to abstract ideas).

⁹ *Alice*, 573 U.S. at 219–20 (concluding that use of a third party to mediate settlement risk is a “fundamental economic practice” and thus an abstract idea); *see* Revised Guidance, p. 52, n.13 for a more extensive listing of “certain methods of organizing human activity” that have been found to abstract ideas.

¹⁰ If a claim, under its broadest reasonable interpretation, covers performance in the mind but for the recitation of generic computer components, then it is still in the mental processes category unless the claim cannot practically be performed in the mind. *See* Revised Guidance, p. 52, n. 14; *see Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1318 (Fed. Cir. 2016) (“[W]ith the exception of generic computer-implemented steps, there is nothing in the claims themselves that foreclose them from being performed by a human, mentally or with pen and paper.”).

¹¹ *Mayo*, 566 U.S. at 71 (“[M]ental processes[] and abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work” (quoting *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972))).

(b) “generating, by the computerized server, a quality score for each item in the plurality of items.” In accordance with the Revised Guidance, we conclude these “determining” and “generating” steps are mental processes which are recited as such in the claims. Thus, Claim 1 recites a judicial exception.

Integration of the judicial exception into a practical application.

Where, as here, we determine the claims recite a judicial exception, we look to determine the presence of additional elements that integrate the judicial exception into a practical application. The Revised Guidance is “designed to more accurately and consistently identify claims that recite a practical application of a judicial exception [] and thus are not ‘directed to’ a judicial exception.” Revised Guidance, at 53.

The claims recite a practical application where an additional element reflects an improvement in the functioning of a computer, or an improvement to other technology or technical field.¹² Revised Guidance, at 55. The Examiner finds claim 1 recites storing, by a computerized server, a plurality of items within a database, which is a routine computer operation, and does not become a technological improvement by reason of the nature of the items stored. Final Act. 4.

¹² The Revised Guidance also finds integration into a practical application where the judicial exception is used in medical treatment or to transform an article to a different state. Revised Guidance, at 55. Such considerations are not before us.

Appellants contend Claims 1, 10, and 21 recite detailed methods and/or systems for determining which member-submitted postings within a computerized social network are of a higher quality and will be served more often than other member-submitted postings within the computerized social network. App. Br. 9. “[M]ethods and/or systems for determining which member-submitted postings within a computerized social network are of a higher quality and will be served more often than other member-submitted postings within the computerized social network,” as Appellants characterize their claims, are merely “managing personal behavior or relationships or interactions between people (including social activities”) and are included in the category of abstract ideas. *Id.*; Revised Guidance, p. 52. Appellants argue, Claims 1, 10, and 21 are analogous to the claims at issue in *DDR Holdings*¹³ that were found to be patent eligible under *Alice* because, according to Appellants, “[b]oth the claims in *DDR Holdings* and claims 1, 10, and 21 provide a specific way to solve the problem that arises in the realm of computer networks.” App. Br. 9. Appellants argue “like the claims in *DDR Holdings*, claims 1, 10, and 21 can be distinguished from those patent-ineligible claims because ‘the claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.’” *Id.*

For the reasons which follow, we conclude that Appellants’ claims do not integrate the judicial exception into **a practical application**. See MPEP §§ 2106.05(a)-(c) and (e)-(h). We address these “practical application”

¹³ *DDR Holdings, LLC v. Hotels.com L.P.*, 773 F.3d 1245 (Fed. Cir. 2014).

MPEP sections *seriatim*:

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

“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.’” MPEP § 2106.05(a).

With respect to technological improvements, Appellants contend:

First, the pending claims address entirely different technological subject matter than the claims in *TLI Communications, LLC* — claim 1 is directed to techniques for “determining which member-submitted postings within a computerized social network are of a higher quality and should be served more often than other member-submitted postings within the computerized network.”

Reply Br. 4. We conclude determining the quality of a social-media posting is not an improvement to the functioning of a computer, nor of any other technology.

MPEP § 2106.05(b) Particular Machine.

At the outset, we note that the *Bilski* machine-or-transformation test is only applicable to the method (process) claims on appeal. This section of the MPEP guides: “When determining whether a claim recites significantly more than a judicial exception, examiners should consider whether the judicial exception is applied with, or by use of, a particular machine.” *See Bilski v. Kappos*, 561 U.S. 593, 604 (2010) (“[T]he machine-or-transformation test is a useful an important clue, and investigative tool” for

determining whether a claim is patent eligible under § 101). MPEP § 2106.05(b).

MPEP § 2106.05(b) provides further guidance regarding what constitutes a particular machine:

[A]s described in MPEP §2106.05(f), additional elements that invoke computers or other machinery merely as a tool to perform an existing process will generally not amount to significantly more than a judicial exception. *See, e.g., Versata Development Group v. SAP America*, 793 F.3d 1306, 1335, 115 USPQ2d 1681, 1702 (Fed. Cir. 2015) (explaining that in order for a machine to add significantly more, it must “play a significant part in permitting the claimed method to be performed, rather than function solely as an obvious mechanism for permitting a solution to be achieved more quickly”).

We find the claims on appeal are *silent* regarding specific limitations directed to an *improved* computer system, processor, memory, network, database, or Internet, nor do Appellants direct our attention to such specific limitations. “[T]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.” *Alice*, 573 U.S. at 223; *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”). Applying this reasoning here, we conclude Appellants’ claims are not directed to a particular machine, but rather merely implement an abstract idea using generic computer components. Thus, we conclude Appellants’ method claims fail to satisfy the “tied to a particular machine” prong of the *Bilski* machine-or-transformation test.

MPEP § 2106.05(c) Particular Transformation.

This section 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. at 658 (quoting *Benson*, 409 U.S. at 70).

The claims operate to select certain electronic data, i.e., social media posts. The selection of electronic data is not a “transformation or reduction of an *article* into a different state or thing constituting patent-eligible subject matter[.]” See *In re Bilski*, 545 F.3d 943, 962 (Fed. Cir. 2008) (emphasis added). See also *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1375 (Fed. Cir. 2011) (“The mere manipulation or reorganization of data . . . does not satisfy the transformation prong.”). Applying this guidance here, we conclude Appellants’ method claims fail to satisfy the transformation prong of the *Bilski* machine-or-transformation test.

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).

“[T]he relevant question is whether the claims here do more than simply instruct the practitioner to implement the abstract idea . . . on a generic computer.” *Alice*, 573 U.S. at 225. Similarly as for *Alice*, we find that “[t]aking the claim elements separately, the function performed by the computer at each step of the process is “[p]urely conventional.”” *Id.* “In short, each step does no more than require a generic computer to perform generic computer functions.” *Id.*

We agree with the Examiner’s conclusion (Ans. 13) that Appellants’ 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.

Appellants are not persuasive that their claims do any more than to merely invoke generic computer components merely as a tool in which the computer instructions apply the judicial exception.

MPEP § 2106.05(g) Insignificant Extra-Solution Activity.

The claims operate to rank social media posts, i.e., “items.” Following a determination of preferred items there is “extra-solution activity,” i.e., “serving, by the computerized server, the one or more items to a computing device in the possession of the human member of the computerized social network.” We find the “serving” of data to be a classic example of insignificant extra-solution activity. *See, e.g., Bilski*, 545 F.3d at 963 (en banc), *aff’d sub nom, Bilski v. Kappos*, 561 U.S. 593 (2010).

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

[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.

Ultramercial, Inc. v. Hulu, LLC, 722 F.3d 1335, 1346 (Fed. Cir. 2013). We find the “computer” and “server” limitations are simply a field of use that attempts to limit the abstract idea to a particular technological environment.

We do not find Appellants’ argument to be persuasive because “[t]he courts have also identified examples in which a judicial exception has not been integrated into a practical application.” Revised Guidance, at 55. The

claims fail to recite a practical application where the additional element does no more than generally link the use of a judicial exception to a particular technological environment or field of use. *Id.* The mere application of an abstract idea in a particular field is not sufficient to integrate the judicial exception into a practical application. *See id.* at n. 32. In view of the foregoing, we conclude the claims are “directed to” a judicial exception.

Well-understood, routine, conventional.

Because the claims recite a judicial exception and does not integrate that exception into a practical application, we must then reach the issue of whether the claim adds a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field. Revised Guidance, at 56. The Examiner finds the further limitations are “well-understood, routine, conventional” because an “ordinary computer can be programmed to perform these steps given rules for the determining, replacing, and generating.” Final Act. 5. The Examiner finds “even reading into this actual transmission of the one or more items from one computer, likely a server, to the computer device in possession of the human member, this amounts only to routine use of computer and communications technology.” Final Act. 6.

Appellants describe the computer and communications system environment of their invention consistent with its being “well-understood, routine, [and] conventional”:

Those skilled in the art will appreciate that the invention may be practiced in network computing environments with many types of computer system configurations, including,

personal computers, desktop computers, laptop computers, message processors, hand-held devices, multi-processor systems, microprocessor-based or programmable consumer electronics, network PCs, minicomputers, mainframe computers, mobile telephones, PDAs, tablets, pagers, routers, switches, various storage devices, and the like.

Spec. ¶ 49.

We find such “well-understood, routine, [and] conventional” limitations fail to indicate the presence of an inventive concept.

Specified at a high level of generality.

It is indicative of the absence of an inventive concept where the claims simply append well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception. Revised Guidance, at 56.

Appellants contend the “biasing” algorithm of claim 1 provides the “significantly more” and thus, an inventive concept. *See* Reply Br. 5.

Claim 1 recites the “biasing” limitation:

for each item of a subset of items included in the plurality of items, biasing, by the computerized server, a chance of selecting the item upward as a function of the corresponding quality score for the item so as to increase the chance of selecting the item during a random selection process;

However, claim 1 fails to recite any specific steps for a biasing algorithm, nor do Appellants cite Specification disclosure for the required specificity.

We find the biasing limitation is specified at such a high level of generality consistent with the absence of an inventive concept. Therefore, 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. *See Alice*, 573 U.S. at 217 (internal quotations omitted) (quoting *Mayo*, 566 U.S. at 79).

In view of the foregoing, we sustain the rejection of claims 1, 10, and 21 under 35 U.S.C. § 101.

DECISION

We affirm the rejection of Claims 1, 10, and 21 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). *See* 37 C.F.R. § 41.50(f).

AFFIRMED