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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ERIK GWYN URDANG

Appeal 2018-000133
Application 13/599,416
Technology Center 3600

Before JOSEPH L. DIXON, JAMES W. DEJMEK, and
STEPHEN E. BELISLE, *Administrative Patent Judges*.

DIXON, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant¹ appeals under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1–18, which constitute all the claims pending in this application. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

The claims are directed to a product version tracker. The product version tracker maintains the one or more network components that comprise the various versions of the product, as well as the connection scheme of the components to create the product. The product version tracker stores the versions of the telecommunications product in a database. In addition, the product version tracker may include a user interface, typically accessed through a computing system, to provide a visual representation of the stored versions of the products to an administrator of the telecommunications network. (Abstract).

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

1. A method for maintaining a telecommunications network, the method comprising:

propagating a first cascading topology request through a plurality of layers of the telecommunications network;

obtaining, in response to the first cascading topology request, information for a first new product in the telecommunications network comprising a plurality of telecommunication devices, the information for the first new product comprising at least a first list of the plurality of telecommunication devices and a first description of at least one connection between the plurality of telecommunication devices;

¹ Appellant indicates that Level 3 Communications, LLC is the real party in interest. (App. Br. 2).

determining whether the first new product is a newer version of a product described in at least one entry in a product catalogue database configured to store a list of telecommunications products;

responsive to the determination, creating a product version entry in the product catalogue database, the product version entry comprising the information for the first new product and an indicator indicating that the product version entry is a version of the product described in the at least one entry in the product catalogue database; and

displaying the product version entry in a user interface on a computing device.

REFERENCES

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Pignataro et al.	US 2013/0114462 A1	May 9, 2013
Voigt et al.	US 2007/0094410 A1	Apr. 26, 2007
Pope et al.	US 8,484,099 B1	July 9, 2013

–VIP,

https://web.archive.org/web/20090521025559/http://www.buckeyecablesystem.com/downloads/User_Information/VIPbrochure.pdf (May 2009)

(“Reference U”)

REJECTIONS

The Examiner made the following rejections:

Claims 1–18 stand rejected under 35 U.S.C. § 101 because the claimed invention is directed to patent-ineligible subject matter. Claims 1–4,

8–12, and 14–18 stand rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Pope in view of Reference U in further view of Voigt.

Claims 5–7 and 13 stand rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Pope in view of Reference U and Voigt in further view of Pignataro.

ANALYSIS 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. Pty. Ltd. 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 [P]etitioners’ 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, 67 (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 water-proof cloth, vulcanizing India rubber, smelting ores” (*id.* at 182 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, 191 (“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*), and *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 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.* (alteration in original) (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 Guidance

The PTO recently published revised guidance in the Federal Register concerning the application of § 101. *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (January 7, 2019) (hereinafter “Guidance”) (<https://www.govinfo.gov/content/pkg/FR-2019-01-07/pdf/2018-28282.pdf>).

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

(1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activities such as a fundamental economic practice, or mental processes);² and

(2) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h)).³

² Referred to as “*Revised Step 2A, Prong 1*” in the Guidance (hereinafter “*Step 2A(i)*”).

³ Referred to as “*Revised Step 2A, Prong 2*” in the Guidance (hereinafter “*Step 2A(ii)*”).

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

(3) adds a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field (*see* MPEP § 2106.05(d)); or

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

See Guidance.

Step 2A(i) – Abstract Idea

Informed by our judicial precedent, the recent 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:

(a) Mathematical concepts—mathematical relationships, mathematical formulas or equations, mathematical calculations;

(b) 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); and

⁴ Items (3) and (4) continue to be collectively referred to as “*Step 2B*” of the Supreme Court’s two-step framework, described in *Mayo* and *Alice*.

(c) Mental processes—concepts performed in the human mind (including an observation, evaluation, judgment, opinion).

Under the Guidance, if the claim does not recite a judicial exception (a law of nature, natural phenomenon, or subject matter within the enumerated groupings of abstract ideas above), then the claim is patent-eligible at *Step 2A(i)*. This determination concludes the eligibility analysis, except in situations identified in the Guidance.⁵

However, if the claim recites a judicial exception (i.e., an abstract idea enumerated above, a law of nature, or a natural phenomenon), the claim requires further analysis for a practical application of the judicial exception in *Step 2A(ii)*.

Step 2A(ii) – Practical Application

If a claim recites a judicial exception in *Step 2A(i)*, we determine whether the recited judicial exception is integrated into a practical application of that exception in *Step 2A(ii)* by: (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception(s); and (b) evaluating those additional elements individually and in combination to determine whether they integrate the exception into a practical application.

⁵ In the rare circumstance in which an Examiner believes a claim limitation that does not fall within the enumerated groupings of abstract ideas should nonetheless be treated as reciting an abstract idea, the procedure described in of the Guidance for analyzing the claim should be followed. *See* Guidance, Section III.C.

The seven identified “practical application” sections of the MPEP,⁶ cited in the Guidance under *Step 2A(ii)*, are:

- (1) MPEP § 2106.05(a) Improvements to the Functioning of a Computer or To Any Other Technology or Technical Field
- (2) MPEP § 2106.05(b) Particular Machine
- (3) MPEP § 2106.05(c) Particular Transformation
- (4) MPEP § 2106.05(e) Other Meaningful Limitations
- (5) MPEP § 2106.05(f) Mere Instructions To Apply An Exception
- (6) MPEP § 2106.05(g) Insignificant Extra-Solution Activity
- (7) MPEP § 2106.05(h) Field of Use and Technological Environment

If the recited judicial exception is integrated into a practical application as determined under one or more of the MPEP sections cited above, then the claim is not directed to the judicial exception, and the patent-eligibility inquiry ends. If not, then analysis proceeds to *Step 2B*.

Step 2B – “Inventive Concept” or “Significantly More”

Under our precedent, it is possible that a claim that does not “integrate” a recited judicial exception under *Step 2A(ii)* is nonetheless patent eligible. For example, the claim may recite additional elements that render the claim patent eligible even though a judicial exception is recited in a separate claim element.⁷ The Federal Circuit has held claims patent eligible at the second step of the *Alice/Mayo* test (USPTO *Step 2B*) because the additional elements recited in the claims provided “significantly more”

⁶ See MPEP § 2106.05(a)–(c), (e)–(h). Citations to the MPEP herein refer to revision [R-08.2017].

⁷ See, e.g., *Diehr*, 450 U.S. at 187.

than the recited judicial exception (e.g., because the additional elements were unconventional in combination).⁸ Therefore, if a claim has been determined to be directed to a judicial exception under *Revised Step 2A*, we must evaluate the additional elements individually and in combination under *Step 2B* to determine whether they provide an inventive concept (i.e., whether the additional elements amount to significantly more than the exception itself).⁹

Under the Guidance, we must consider in *Step 2B* whether an additional element or combination of elements: (1) “Adds a specific limitation or combination of limitations that are not well-understood, routine, conventional activity in the field, which is indicative that an inventive concept may be present;” or (2) “simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception, which is indicative that an inventive concept may not be present.” *See* Guidance, III.B.¹⁰

⁸ *See, e.g., Amdocs (Israel), Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1300, 1304 (Fed. Cir. 2016); *BASCOM Global Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1349–52 (Fed. Cir. 2016); *DDR Holdings v. Hotels.com*, 773 F.3d 1245, 1257–59 (Fed. Cir. 2014).

⁹ We note 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).

¹⁰ In accordance with existing *Step 2B* Guidance, an Examiner’s conclusion that an additional element (or combination of elements) is well understood, routine, conventional activity must be supported with a factual determination. For more information concerning evaluation of well-understood, routine, conventional activity, *see* MPEP § 2106.05(d), as

In the *Step 2B* analysis, an additional element (or combination of elements) is not well-understood, routine, or conventional unless the examiner finds an evidentiary basis, and expressly supports a rejection in writing with, one or more of the following:

1. A citation to an express statement in the specification or to a statement made by an applicant during prosecution that demonstrates the well-understood, routine, conventional nature of the additional element(s).
2. A citation to one or more of the court decisions discussed in MPEP § 2106.05(d)(II) as noting the well-understood, routine, conventional nature of the additional element(s).
3. A citation to a publication that demonstrates the well-understood, routine, conventional nature of the additional element(s).
4. A statement that the examiner is taking official notice of the well-understood, routine, conventional nature of the additional element(s).

See Berkheimer Memo.

The analysis in *Step 2B* further determines whether an additional element or combination of elements:

(a) Adds a specific limitation or combination of limitations that are not well-understood, routine, conventional activity in the field, which is indicative that an inventive concept may be present; or

(b) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to

modified by the USPTO *Berkheimer* Memorandum (USPTO Commissioner for Patents Memorandum dated Apr. 9, 2018, “Changes in Examination Procedure Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (*Berkheimer v. HP, Inc.*)” (hereinafter “*Berkheimer Memo*”).

the judicial exception, which is indicative that an inventive concept may not be present.

Guidance, and *see Berkheimer Memo*.

If the Examiner or the Board determines under *Step 2B* that the element (or combination of elements) amounts to significantly more than the exception itself, the claim is patent eligible, thereby concluding the eligibility analysis.

However, if a determination is made that the element and combination of elements does not amount to significantly more than the exception itself, the claim is patent ineligible under *Step 2B*, and the claim should be rejected for lack of subject matter eligibility.

35 U.S.C. § 101

With respect to claims 1–18, Appellant argues the claims together. (App. Br. 5–6). Therefore, we select independent claim 1 as the representative claim for the group and will address Appellant’s arguments thereto. 37 C.F.R. § 41.37(c)(1)(iv) (2016). Arguments which Appellant could have made but did not make in the Briefs are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Revised Guidance Step 1

Step 1 of the Revised Guidance asks whether the claimed subject matter falls within the four statutory categories of patentable subject matter identified by 35 U.S.C. § 101: process, machine, manufacture, or composition of matter. *See* Revised Guidance. Claim 1 recites “a method.” Appellant does not argue the Examiner erred in concluding claim 1 falls

within the four statutory categories of patentable subject matter. We agree with the Examiner's conclusion because claim 1 falls within the process category.

*Revised Guidance Step 2A(i):
Does the Claim Recite a Judicial Exception?*

Under Step 2A(i) of the Revised Guidance, we determine whether the claims recite any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes). *See* Revised Guidance.

The Examiner determines the claims are patent ineligible under 35 U.S.C. § 101, because the claims are directed to an abstract idea of processing credential data, namely, “the concept of collecting and comparing known information and obtaining and comparing intangible data,” which is a fundamental economic practice, and the claims do not recite limitations that provide significantly more than the abstract idea itself. (Ans. 2).

Claim 1 recites the following limitation: (1) “determining whether the first new product is a newer version of a product described in at least one entry in a product catalogue database configured to store a list of telecommunications products.” This limitation, under its broadest reasonable interpretation, recites a method of tracking versions of a telecommunications product over time.¹¹ (Spec. ¶ 18–19).

¹¹ We find that the body of the claim does not achieve the intended purpose in the preamble of “maintaining a telecommunications network,” but merely maintains information regarding product versions.

Based upon the Guidance, we refine the Examiner’s statement of the abstract idea embodied in independent claim 1 to characterize the step of “determining whether the first new product is a newer version of a product described in at least one entry in a product catalogue database configured to store a list of telecommunications products,” as a mental process that can be performed in the human mind and/or by pen and paper, and thus an abstract idea.

For example, the independent claim 1 step of “determining whether the first new product is a newer version of a product described in at least one entry in a product catalogue database configured to store a list of telecommunications products” is characteristic of identifying new products where “[i]dentification of the product as a new product or a new version of an existing product may be performed in any manner.” Spec. ¶ 43; *see generally* Spec. ¶¶ 26–28, 42–44. Accordingly, we conclude the claims recite an evaluation, which is a mental process that can be performed in the human mind and/or by pen and paper identified in the Revised Guidance, and thus an abstract idea.

We find this type of activity, i.e., determining whether the first new product is a newer version of a product described in at least one entry in a product catalogue database configured to store a list of telecommunications products, for example, includes longstanding conduct that existed well before the advent of computers and the Internet, and could be carried out by a human with pen and paper. *See CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1375 (Fed. Cir. 2011) (“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*.”).¹²

Our reviewing court has previously held other patent claims ineligible for reciting similar abstract concepts. For example, although the Supreme Court has enhanced the § 101 analysis since *CyberSource* in cases like *Mayo* and *Alice*, the Federal Circuit continues to “treat[] analyzing information by steps people go through in their minds, . . . without more, as essentially mental processes within the abstract-idea category.” *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1146–47 (Fed. Cir. 2016) (quoting *Elec. Power Grp. v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016)).

*Step 2A(ii): Judicial Exception Integrated
into a Practical Application?*

If the claims recite a judicial exception, as we conclude above, we proceed to the “practical application” *Step 2A(ii)* in which we determine whether the recited judicial exception is integrated into a practical application of that exception by: (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception(s); and (b) evaluating those additional elements individually and in combination to determine whether they integrate the exception into a practical application.

In addition to the abstract idea of “determining whether the first new product is a newer version of a product described in at least one entry in a product catalogue database configured to store a list of telecommunications products data” identified in *Step 2A(i)*, *supra*, claim 1 recites the additional

¹² *CyberSource* further guides that “a method that can be performed by human thought alone is merely an abstract idea and is not patent-eligible under § 101.” *CyberSource*, 654 F.3d at 1373.

elements/steps of “propagating,” “obtaining,” “responsive to the determination, creating a product version entry,” and “displaying.”

As to these specific limitations, we find the limitations “propagating a first cascading topology request” and “obtaining, in response to the first cascading topology request, information for a first new product in the telecommunications network” recite insignificant data gathering. *See* MPEP § 2106.05(g). 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).

We also find the limitations “creating a product version entry in the product catalogue database” and “displaying the product version entry in a user interface on a computing device” recite insignificant post-solution activity. Additionally, Appellant’s Specification identifies that the “creating” step can be manual.¹³ The Supreme Court guides that the “prohibition against patenting abstract ideas ‘cannot be circumvented’ [by] adding ‘insignificant post-solution 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. *See* MPEP

¹³ “In one embodiment, the various versions of the products are stored in the product catalogue 204 manually as new versions and products are developed. In another embodiment, the new versions and products are obtained or provided to the product version tracker 202 which then stores the new versions and products in the product catalogue database 204.” (Spec. ¶ 27).

§ 2106.05(a). Appellant identifies paragraphs 42–44 and 59 of the Specification which disclose the method used in the system of Figure 9. (App. Br. 3). (Spec. ¶¶ 17, 80–84 describes figure 9 as having various elements which are all disclosed as generic computer parts and peripherals).

Furthermore, the Examiner finds

The claims recite additional limitations such as telecommunication devices and a computing device th[r]ough which the invention operates. However, these elements are recited at a high level of generality. These elements require little more than a generic display device, processor, memory, and communications module. It has been held that generic computing components performing generic functions, alone, do not amount to significantly more than the abstract idea. In addition, the claims recite the display of the product version entry on a computing device however the display of data is extra solution activity and also a routine and conventional activity which virtually any generic computing device can perform. In addition, the claims do not create an improvement in another technology or technical field, an improvement in a computer, or something beyond using generic computing components to perform routine and conventional activities.

(Final Act. 3)

Accordingly, we conclude the recited judicial exception is not integrated into a practical application as determined under one or more of the MPEP sections cited above, such that the claim is directed to the judicial exception because the additional elements merely add insignificant extra-solution activity to the judicial exception.

Step 2B – “Inventive Concept” or “Significantly More”

If the claims are “directed to” a patent-ineligible concept, as we conclude above, we proceed to the “inventive concept” step. For *Step 2B*, we must “look with more specificity at what the claim elements add, in order

to determine ‘whether they identify an “inventive concept” in the application of the ineligible subject matter’ to which the claim is directed.” *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1258 (Fed. Cir. 2016) (quoting *Elec. Power Grp.*, 830 F.3d at 1353).

In applying step 2 of the *Alice* analysis, our reviewing court guides we must “determine whether the claims do significantly more than simply describe [the] abstract method” and thus transform the abstract idea into patent-eligible subject matter. *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014). We look to see whether there are any “additional features” in the claims that constitute an “inventive concept,” thereby rendering the claims eligible for patenting even if they are directed to an abstract idea. *Alice*, 573 U.S. at 221. Those “additional features” must be more than “well-understood, routine, conventional activity.” *Mayo*, 566 U.S. at 79.

Limitations referenced in *Alice* that are not enough to qualify as “significantly more” when recited in a claim with an abstract idea include, as non-limiting or non-exclusive examples: adding the words “apply it” (or an equivalent) with an abstract idea¹⁴; mere instructions to implement an abstract idea on a computer¹⁵; or requiring no more than a generic computer

¹⁴ *Alice*, 573 U.S. at 221–23.

¹⁵ *Alice*, 573 U.S. at 221, *e.g.*, simply implementing a mathematical principle on a physical machine, namely a computer (citing *Mayo*, 566 U.S. at 84–85).

to perform generic computer functions that are well-understood, routine and conventional activities previously known to the industry.¹⁶

Evaluating representative claim 1 under step 2 of the *Alice* analysis, we agree with the Examiner that claim 1 lacks an inventive concept that transforms the abstract idea of “determining whether the first new product is a newer version of a product described in at least one entry in a product catalogue database configured to store a list of telecommunications products” into a patent-eligible application of that abstract idea. *See* Final Act. 4; Ans. 3.¹⁷

We note the patent-eligibility inquiry may contain underlying issues of fact. *Mortgage Grader*, 811 F.3d at 1325. 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*, 881 F.3d at 1368.

As evidence of the conventional nature of the computing device and telecommunication network, we note the Examiner’s citation to Figure 7

¹⁶ *Alice*, 573 U.S. at 225, *e.g.*, using a computer to obtain data, adjust account balances, and issue automated instructions.

¹⁷ “The additional elements present (telecommunications network, a product catalogue database, and a user interface on a computing device) are generic computer components (Spec. ¶¶ 17, 41 (“instructions that, when performed by a processor of a general or special purpose computer”), 59 (“In general, any computer instruction or format that provides for the request of information from a computing device may be used in operation 706”), 80–84 (description of Figure 9)), which are (a) well-known, routine, and conventional. The additional elements present are arranged in a well-known, routine, and conventional fashion and used in ways that are also well-known, routine, and conventional.

(Ans. 4). We additionally note that the topology discovery engine discussed in Figure 7 is implemented on the conventional computer components and disclosed in Figure 9.

We agree with the Examiner that the claim limitations may be broadly but reasonably construed as reciting conventional computer components and techniques, particularly in light of Appellant's Specification, as quoted above.¹⁸

With respect to the *Step 2B* analysis, we agree with the Examiner because, as in *Alice*, the recitation of a “telecommunications network,” “a product catalogue database,” and “a user interface on a computing device” (claim 1) is simply not enough to transform the patent-ineligible abstract idea here into a patent-eligible invention. *See Alice*, 573 U.S. at 221 (“[C]laims, which merely require generic computer implementation, fail to transform [an] abstract idea into a patent-eligible invention.”).

Accordingly, based upon the findings above, on this record, we are not persuaded of error in the Examiner's conclusion that the appealed claims are directed to patent-ineligible subject matter. Therefore, we sustain the

¹⁸ During prosecution, claims must be given their broadest reasonable interpretation when reading claim language in light of the specification as it would be interpreted by one of ordinary skill in the art. *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). Under this standard, we interpret claim terms using “the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant's specification.” *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997).

Examiner's § 101 rejection of representative independent claim 1, and grouped claims 2–18, not argued separately, and which fall therewith.

Response to Appellant's arguments

We address Appellant's arguments as they apply to the Guidance and add the following primarily for emphasis and clarification with respect to the Guidance.

Appellant contends that “the claims are not directed to an abstract idea.” (App. Br. 5). Appellant further contends that “the claims of this Application are beyond an abstract idea. Specifically, the claims define the creation of new data.” (App. Br. 5). Appellant argues that the Examiner's response to Appellant's arguments is insufficient, contains no analysis and no case law citation, and is nothing more than an unsubstantiated assertion. (App. Br. 5). Appellant further argues that “the claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.” (App. Br. 6).

As discussed above, we find Appellant's claimed invention to be directed to an abstract idea. Appellant has not identified how the claimed solution is rooted in computer technology, and the proffered creation of new data from gathered data in the claims at issue does not add “significantly more” than the abstract idea, as detailed above. As a result, Appellant's general arguments for patent eligibility do not show error in the Examiner's conclusion of a lack of patent-eligible subject matter of representative independent claim 1 and claims 2–18 not separately argued.

35 U.S.C. § 103

With respect to claims 1–4, 8–12, and 14–18, Appellant provides separate arguments for independent claims 1 and 9 and relies upon these arguments for claims 2–4, 8 as they depend from claim 1 and claims 10–12, and 14–18 as they depend from claim 9. (App. Br. 10). Therefore, we select independent claim 1 as the representative claim and will address Appellant’s arguments thereto. *See* 37 C.F.R. § 41.37(c)(1)(iv). We do not consider arguments that Appellant could have made but chose not to make in the Brief so we deem any such arguments as waived. 37 C.F.R. § 41.37(c)(1)(iv). We further note that Appellant did not file a Reply Brief to respond to the Examiner’s clarifications in the Examiner’s Answer.

With respect to representative independent claim 1, Appellant contends that the Examiner’s reliance upon the Pope reference to teach the determining step is in error and Pope actually teaches the opposite of what is being claimed. (App. Br. 7). Appellant specifically contends that “[c]laim 1 defines determining whether the first new product is a newer version of a product described in at least one entry in a product catalogue.” (App. Br. 7). Appellant contends that:

Pope clearly states “[d]etermining whether a newer model of the product has been introduced by a manufacturer may include comparing model names, model attributes, and model features”. (Column 17, line 62) This indicates that the determination starts with an existing product and determines whether a newer model exists. The claim states “determining whether the first new product is a newer version of a product described in at least one entry in a product catalogue database configured to store a list of telecommunications products.”

(App. Br. 7).

The Examiner disagrees with Appellant's interpretation of the Pope reference and the Examiner finds that the Pope reference teaches determining whether a first new product is a newer version of a prior product. (Ans. 4–5). We agree with the Examiner and further note that the language of independent claim 1 does not define any aspects of the “first new product.”

With regards to the creating element, Appellant contends that “the creating element is operative based on the determining element. There is nothing in Pope that teaches creating based on the outcome of a determination.” (App. Br. 8). The Examiner emphasizes that the Pope reference teaches the storing of the results of the analysis, which would be creating an entry as a result of the analysis. (Ans. 5). Additionally, we agree with the Examiner that the Pope reference teaches the system “identif[ies] model Y as being much improved over model X, model Y may be identified as a newer model of model X regardless of whether the manufacturer identified model Y as an upgrade of model X.” (Pope col. 18, ll. 1–5). We further agree with the Examiner that the corresponding data would be stored as indicated by the Examiner as a result of the analysis. (Ans. 5–6).

Finally, Appellant contends that although Pope does store results in a database. Pope does not teach creating a product version entry and there is nothing in Pope that teaches creating based on the outcome of a determination where the storing of results in a database does not teach all aspects of the claim element. (App. Br. 8). As discussed above, we agree with the Examiner that the results of the analysis/determination would create an entry and are stored.

Therefore, we find Appellant's arguments do not show error in the Examiner's factual findings or conclusion of obviousness of representative independent claim one and we sustain the rejection thereof and dependent claims 2–8 not separately argued.

In rejecting representative independent claim 9, the Examiner relies upon the same base combination of Pope, Reference U, and Voight. (Ans. 8–10; Final Act. 9–10). Appellant contends that the proffered combination does not teach all elements of claim 9. (App. Br. 9). Appellant presents the same arguments that columns 17 and 28 of the Pope reference do not teach or suggest of the creating element of independent claim 9. (App. Br. 9).

As discussed above, we agree with the Examiner that the Pope reference teaches and fairly suggests storing the results of the analysis which is created data from gathered data. As a result, Appellant's argument does not show error in the Examiner's factual findings or conclusion of obviousness of independent claim 9

With respect to dependent claims 5–7 and 13, Appellant relies upon the arguments advanced with respect to claims 1 and 9 and does not set forth separate arguments for patentability. (App. Br. 10–11). As a result, we group these claims as falling with their parent independent claims.

CONCLUSIONS

The Examiner did not err in rejecting claims 1–18 based upon a lack of patent-eligible subject matter under 35 U.S.C. § 101, and the Examiner did not err in rejecting claims 1–18 based upon obviousness under 35 U.S.C. § 103.

DECISION

For the above reasons, we affirm the Examiner's patent-eligibility rejection of claims 1–18 under 35 U.S.C. § 101, and we affirm the Examiner's obviousness rejections of claims 1–18 under 35 U.S.C. § 103.

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).

AFFIRMED