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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte VAHIT HAKAN HACIGUMUS

Appeal 2018-007020
Application 12/060,951
Technology Center 3600

Before MURRIEL E. CRAWFORD, MICHAEL W. KIM, and
MATTHEW S. MEYERS, *Administrative Patent Judges*.

CRAWFORD, *Administrative Patent Judge*.

DECISION ON APPEAL
STATEMENT OF THE CASE

Appellant seeks our review under 35 U.S.C. § 134 of the Examiner's final rejection of claims 1–20. We have jurisdiction under 35 U.S.C. § 6(b).

SUMMARY OF DECISION

We AFFIRM.

THE INVENTION

Appellant's claims recite a method for providing service components to business processes. (Spec. ¶ 1).

Claim 1 is representative of the subject matter on appeal.

1. A method for implementing business processes and forming service compositions to provide service components

used in implementing the business processes, said method comprising:

identifying at least one service component of a plurality of service components independently needed by each business process of a plurality of business processes, wherein at least one of the service components is needed by at least two business processes of the plurality of business processes, and wherein at least two different service components of the plurality of service components are needed by at least one business process of the plurality of business processes;

specifying a plurality of service compositions, wherein each service composition comprises said at least one of said service components, and wherein at least one of said service compositions comprises at least two of said service components;

ascertaining, by a computer processor, an optimal subset of the plurality of service compositions, wherein the total cost of deploying the service compositions in the optimal subset to provide said at least one service component independently needed by each business process does not exceed the total cost of deploying the service compositions in any other subset of the plurality of service compositions to provide said at least one service component independently needed by each business process;

deploying and integrating the service compositions in the optimal subset to provide to a first business process of the plurality of business processes the at least one service component needed by the first business process to implement at least one service; and

implementing the first business process in a Service Oriented Architecture (SOA) platform in which applications and Information Technology (IT) resources are distributed and seamlessly accessible, said implementing the first business process comprising implementing the at least one service, said implementing the at least one service comprising installing computer hardware and computer software on a consumer's premises.

THE REJECTION

Claims 1–20 are rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more.¹

ANALYSIS

35 U.S.C. § 101 REJECTION

We will sustain the rejection of claims 1–20 under 35 U.S.C. § 101.

The Supreme Court

set forth a framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts. First, . . . determine whether the claims at issue are directed to one of those patent-ineligible concepts. . . . If so, . . . then ask, “[w]hat else is there in the claims before us?” . . . To answer that question, . . . consider the elements of each claim both individually and “as an ordered combination” to determine whether the additional elements “transform the nature of the claim” into a patent-eligible application. . . . [The Court] described step two of this analysis as a search for an “inventive concept”—*i.e.*, an element or combination of elements that is “sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.”

Alice Corp. Pty. Ltd. v. CLS Bank Int’l, 573 U.S. 208, 217–218 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 72–73 (2012)) (citations omitted).

To perform this test, we must first determine whether the claims at issue are directed to a patent-ineligible concept. The Federal Circuit has explained that “the ‘directed to’ inquiry applies a stage-one filter to claims,

¹ The rejection of claims 1–20 under 35 U.S.C. § 112(b), second paragraph has been withdrawn. (Ans. 14).

considered in light of the [S]pecification, based on whether “their character as a whole is directed to excluded subject matter.” *See Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016) (quoting *Internet Patents Corp.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015)). It asks whether the focus of the claims is on a specific improvement in relevant technology or on a process that itself qualifies as an “abstract idea” for which computers are invoked merely as a tool. *See id.* at 1335–36.

In so doing we apply a “directed to” two prong test: 1) evaluate whether the claim recites a judicial exception, and 2) if the claim recites a judicial exception, evaluate whether the judicial exception is integrated into a practical application. *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50, 50–57 (Jan. 7, 2019).

The Examiner determines that the claims are directed to determining an optimal group of service compositions for providing service components to business processes. (Final Act. 12). The Examiner determines that the claims recite collecting and comparing known information, collecting information, analyzing it, and displaying certain results of the collection and analysis and mathematical relationships/formulas, which, as recited in this manner, are abstract ideas. The Examiner finds that the process claims include the additional element of a computer processor and the article of manufacture claims include additional elements of a computer program product comprising a computer readable storage device having a computer readable program code embodied therein, said computer readable program code containing instructions that when executed by a processor of a computer system implement the recited method. (Final Act. 13). In addition, the Examiner finds that the additional elements perform routine

operations, including those identified by the courts as well-understood, routine, and conventional computer functions and do not qualify as significantly more than the claimed judicial exception. (Final Act. 15).

The Specification discloses that the method first identifies at least one service component of a plurality of service components independently needed by each business process of a plurality of business processes (collects and analyzes data), then identifies a plurality of service compositions (analyzes data), and ascertains an optimal subset of the plurality of service compositions (analyzes data). (Specification 30–31). As such, the Specification supports the Examiner’s determination that the claims recite collecting and comparing known information, collecting information, and analyzing it.

Consistent with this disclosure, claim 1 recites “identifying at least one service component” (collecting/evaluating data); “specifying a plurality of service compositions” (evaluating data); “ascertaining . . . an optimal subset of the plurality of service compositions” (evaluating data), and, as such, claim 1 also recites a method of collecting and comparing known information, collecting information, and analyzing it.

We, therefore, agree with the Examiner’s finding that claim 1 recites collecting and comparing known information, collecting information, and analyzing it. These steps, as recited in claim 1, constitute “analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes within the abstract-idea category.” *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016). For example, take the first limitation of “identifying at least one service component of a plurality of service

components independently needed by each business process of a plurality of business processes, wherein at least one of the service components is needed by at least two business processes of the plurality of business processes, and wherein at least two different service components of the plurality of service components are needed by at least one business process of the plurality of business processes.” The “identifying” here involves no more than making an evaluation that a service component has certain characteristics, and we are unpersuaded that there is anything about the service components or characteristics that cannot be performed practically in the human mind. Thus, we find that claim 1 recites the abstract idea of a mental process.

Turning to the second prong of the “directed to test,” claim 1 merely requires a “processor.” The recitation of the word “processor” alone does not impose “a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception.” *Guidance* 84 Fed. Reg. at 55. We find no indication in the Specification, nor does Appellant direct us to any indication, that the processor operations recited in independent claim 1 invoke any inventive programming, require any specialized computer hardware or other inventive computer components, i.e., a particular machine, or that the claimed invention is implemented using other than generic computer components to perform generic computer functions. *See DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014) (“[A]fter *Alice*, there can remain no doubt: recitation of generic computer limitations does not make an otherwise ineligible claim patent-eligible.”).

We also find no indication in the Specification that the claimed invention effects a transformation or reduction of a particular article to a

different state or thing. Nor do we find anything of record, short of attorney argument, that attributes any improvement in computer technology and/or functionality to the claimed invention or that otherwise indicates that the claimed invention integrates the abstract idea into a “practical application,” as that phrase is used in the revised Guidance. *See Guidance*, 84 Fed. Reg. at 55.

In this regard, the recitation does not affect an improvement in the functioning of the processor or other technology, does not recite a particular machine or manufacture that is integral to the claims, and does not transform or reduce a particular article to a different state or thing. *Id.* Thus, claim 1 is directed to a judicial exception that is not integrated into a practical application and therefore is directed to an “abstract idea.”

Turning to the second step of the *Alice* analysis, because we find that claim 1 is directed to an abstract idea, the claim must include an “inventive concept” in order to be patent-eligible, i.e., there must be an element or combination of elements that is sufficient to ensure that the claim in practice amounts to significantly more than the abstract idea itself. *See Alice*, 573 U.S. at 217–18 (alteration in original) (quoting *Mayo*, 566 U.S. at 72–73).

The introduction of a processor into the claims does not alter the analysis at *Alice* step two.

[T]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention. Stating an abstract idea “while adding the words ‘apply it’” is not enough for patent eligibility. Nor is limiting the use of an abstract idea “to a particular technological environment.” Stating an abstract idea while adding the words “apply it with a computer” simply combines those two steps, with the same deficient result. Thus, if a patent’s recitation of a computer amounts to a mere instruction to “implemen[t]” an abstract idea

“on . . . a computer,” that addition cannot impart patent eligibility. This conclusion accords with the preemption concern that undergirds our § 101 jurisprudence. Given the ubiquity of computers, wholly generic computer implementation is not generally the sort of “additional featur[e]” that provides any “practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself.”

Alice, 573 U.S. at 223 (alterations in original) (citations omitted).

Instead, “the relevant question is whether the claims here do more than simply instruct the practitioner to implement the abstract idea . . . on a generic computer.” *Id.* at 225. They do not.

Taking the claim elements separately, the function performed by the processor at each step of the process is purely conventional. Using a processor to retrieve, select, and apply decision criteria to data, and modify the data as a result, amounts to electronic data query and retrieval—one of the most basic functions of a computer. All of these computer functions are well-understood, routine, conventional activities previously known to the trading industry. *See Elec. Power Grp.*, 830 F.3d at 1354; *see also In re Katz Interactive Call Processing Patent Litig.*, 639 F.3d 1303, 1316 (Fed. Cir. 2011) (“Absent a possible narrower construction of the terms ‘processing,’ ‘receiving,’ and ‘storing,’ . . . those functions can be achieved by any general purpose computer without special programming”). In short, each step does no more than require a generic computer to perform generic computer functions. As to the data operated upon, “even if a process of collecting and analyzing information is ‘limited to particular content’ or a particular ‘source,’ that limitation does not make the collection and analysis other than abstract.” *SAP Am. Inc. v. InvestPic, LLC*, 890 F.3d 1016, 1022 (Fed. Cir. 2018).

Considered as an ordered combination, the computer components of Appellant's claims add nothing that is not already present when the steps are considered separately. The sequence of data reception-analysis-access/display is equally generic and conventional or otherwise held to be abstract. *See Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014) (sequence of receiving, selecting, offering for exchange, display, allowing access, and receiving payment recited an abstraction), *Inventor Holdings, LLC v. Bed Bath & Beyond, Inc.*, 876 F.3d 1372, 1378 (Fed. Cir. 2017) (holding that sequence of data retrieval, analysis, modification, generation, display, and transmission was abstract), *Two-Way Media Ltd. v. Comcast Cable Commc'ns, LLC*, 874 F.3d 1329, 1339 (Fed. Cir. 2017) (holding sequence of processing, routing, controlling, and monitoring was abstract). The ordering of the steps is, therefore, ordinary and conventional.

Claim 1 does not, for example, purport to improve the functioning of the processor itself. As we stated above, the claim does not affect an improvement in any other technology or technical field. The Specification spells out different generic equipment and parameters that might be applied using this concept and the particular steps such conventional processing would entail based on the concept of information access under different scenarios. (*See, e.g.*, Specification ¶¶ 114–115). In fact, the Specification discloses that any configuration of hardware and software, as would be known to a person of ordinary skill in the art, may be utilized for the invention. (Specification ¶ 115). Thus, claim 1 amounts to nothing significantly more than instructions to apply the abstract idea of information access using some unspecified, generic computer. Under our precedents,

that is not enough to transform an abstract idea into a patent-eligible invention. *See Alice*, 573 U.S. at 226.

We have reviewed all the arguments (Appeal Br. 9–15; Reply Br. 2–8) Appellant has submitted concerning the patent eligibility of the claims before us that stand rejected under 35 U.S.C. § 101. We find that our analysis above substantially covers the substance of all the arguments, which have been made. But, for purposes of completeness, we will address various arguments in order to make individual rebuttals of same.

We are not persuaded of error on the part of the Examiner by Appellant’s argument that claim 1 recites more than just “identifying,” “specifying,” and “ascertaining,” because the claims include installing computer hardware. (Appeal Br. 12). As we discussed above, the first step in the subject matter eligibility analysis is to determine if the claim “recites” a judicial exception. Claim 1, by reciting “identifying,” “specifying,” and “ascertaining” recites steps of collecting and comparing known information. It is true that claim 1 also recites “implementing the at least one service comprising installing computer hardware and computer software on a consumer’s premises.” This recitation is in addition to the abstract idea and is considered when determining if the judicial exception recited in claim 1 is integrated into a practical application, and whether the claim recites significantly more than an abstract idea. The Examiner considers this language and finds that the installation of service components is performed at a high level of generality, and is performed in a conventional manner. The Examiner finds that delivering and installing computer components (e.g. hardware and software) at the premises of a customer have long been

performed, these acts are prevalent in the art and they are conventional ways of providing hardware and software to a customer. (Ans. 15).

We agree. These limitations do not reflect a patent-eligible application of the patent-ineligible abstract idea. To the contrary, we agree that these limitations are recited at a high-level of generality and comprise routine techniques and post-solution activity that does not impart a sufficient inventive concept to claim 1. *See Mayo*, 132 S.Ct. at 1298 (“well-understood, routine, conventional activity previously engaged in by scientists who work in the field ... is normally not sufficient to transform an unpatentable law of nature into a patent-eligible application of such law.”); *see also Parker v. Flook*, 437 U.S. 584, 590 (1978) (“The notion that post-solution activity, no matter how conventional or obvious in itself, can transform an unpatentable principle into a patentable process exalts form over substance.”) Appellant has not persuasively shown otherwise.

We are not persuaded of error on the part of the Examiner by Appellant’s argument that the claim does not seek to tie up or preempt the abstract idea. (Reply Br. 3). Although 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); *see also OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362-63 (Fed. Cir. 2015), cert. denied, 136 S. Ct. 701, 193 (2015) (“[T]hat the claims do not preempt all price optimization or may be limited to price optimization in the e-commerce setting do not make them any less abstract.”). And, “[w]here a patent's claims are deemed only to disclose patent ineligible subject matter under the *Mayo* framework, as they are in this case, preemption concerns are fully

addressed and made moot.” *Ariosa*, 788 F.3d at 1379.

We are not persuaded of error on the part of the Examiner by Appellant’s argument that the Examiner failed to follow the case of *Berkheimer v. HP, Inc.*, 890 F.3d 1369, 1374 (Fed. Cir. 2018), because the Examiner failed to provide evidence that the additional elements recited in the claims are well-understood, routine or conventional. (Reply Br. 6-7). This is not correct. In fact, the Examiner specifically relied on paragraphs 114–115 of the Specification in making the finding that the additional elements recited in the claims are well-understood, routine and conventional. (Ans. 16).

In view of the foregoing, we will sustain this rejection as it is directed to claim 1. We will also sustain the rejection as it is directed to the remaining claims subject to this rejection because Appellant has not argued the separate eligibility of these claims.

CONCLUSION OF LAW

We conclude the Examiner did not err in rejecting claims 1–20 under 35 U.S.C. § 101.

DECISION

In summary:

Claims Rejected	35 U.S.C. §	Basis	Affirmed	Reversed
1–20	101	Eligibility	1–20	
Overall Outcome			1–20	

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED