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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ROBERT HARRIS

Appeal 2018-002899
Application 13/975,298
Technology Center 3600

Before MURRIEL E. CRAWFORD, ANTON W. FETTING, and
BIBHU R. MOHANTY *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 13–19. We have jurisdiction under 35 U.S.C. § 6(b).

SUMMARY OF DECISION

We AFFIRM.

THE INVENTION

Appellant claims a method and system for ranking services in a web services architecture having a hierarchy of services. (Spec. 3, Title).

Claim 13 is representative of the subject matter on appeal.

13. A data processing system implementing a web services architecture comprising:

a computer including non-transitory memory for loading computer useable code for execution by at least one processor;

a hierarchy of invocable services represented by data accessible over a network in which a selected one of the services of a first level of the hierarchy calls a service of a lower level of the hierarchy; and,

a ranking machine that includes program code that is executable by the processor of the computer and that is coupled over the network to a directory of the services in the hierarchy, the directory providing at each level of the hierarchy a set of possible services,

the program code during execution:

selecting, based upon pre-stored service requestor preferences for selecting a service, one of the services of the first level of the hierarchy in order to find a set of possible lower-level services in the directory for calling by the selected one of the services, and

in response to a request by the selected one of the services to find a set of possible lower-level services,

applying the pre-stored service requestor preferences for selecting a service to the set of possible lower-level services in order to provide a sequence of preferred services for return by the directory to the selected one of the services, listening on a port on the directory,

receiving a bag of results from the directory,

applying the pre-stored service requestor preferences for selecting a service to the bag of the results to produce a sequence of results in preferred order of the originating service requestor, and

returning the sequence of results in the preferred order of the originating service requestor to the directory, so that the directory answers a look up with the sequence of results provided by the ranking machine.

THE REJECTION

Claims 13–19 are rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more.

Claims 13-19 are rejected under 35 U.S.C. §112, first paragraph.

Claims 13-19 are rejected under 35 U.S.C. §102(e) as being anticipated by Murto et.al (hereinafter “Murto”) (US PGPub 2004/0213409 A1; Oct. 28, 2004).

ANALYSIS

35 U.S.C. § 101 REJECTION

We will sustain the rejection of claims 13–19 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, considered in light of the [S]pecification, based on whether ‘their character as a whole is directed to excluded subject matter.’” *See English, 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

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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 FR 50, pp 50–57 (Jan. 7, 2019) (“*Guidance*”).

The Examiner determines that the claims are directed to a mathematical relationship or formula and collecting and recognizing stored information and using rules in order to determine options. (Final Act. 9). The Examiner determines that the claimed invention is simply directed to the searching of information based on parameters associated with a search report. The Examiner finds the claimed invention has done nothing more than disclose the user of generic devices in order to collect information in order to perform the comparison and determination steps. According to the Examiner, the invention has done nothing more than generically link the generic devices to the abstract idea of data collection and recognition so as to use the collected information in order to determine an assessment. (Final Act. 10).

The Specification discloses that the invention is a method for ranking services in a web service architecture having a hierarchy of services with a root originating service requestor, a service of a first level in the hierarchy calling a service of a lower level. The method comprises the originating service requestor indicating a preference regarding one or more services (transmitting and storing information regarding a preference) and a ranking machine having a choice algorithm based on the preference (processing the

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information or data using an algorithm). (Spec. 3). The originating service requestor invokes services of one or more levels of hierarchy (transmitting, processing and storing information or data). The service uses a directory to find the set of possible lower-level services (processing information or data). And the ranking machine applies the choice algorithm to the set of possible lower level service (processing information or data). As such, the Specification supports the Examiner's determination that the claims recite a method that collects and recognizes stored information and uses a mathematical relationship or formula to determine options.

Consistent with this disclosure, claim 13 recites “ the program code during execution (mathematical algorithm);” “selecting based upon pre-stored service requestor preferences . . . one of the services of the first level of the hierarchy (receiving information or data),” “applying the . . . requestor preferences . . . to the set of possible lower-level services (processing information or data),” “receiving a bag of results (transmitting information or data),” “applying the pre-stored service requestor preferences (processing information or data),” “returning the . . . results (transmitting information or data.”

We thus agree with the Examiner's findings that the claims are directed to a method that collects and recognizes stored information and uses a mathematical relationship or formula to determine options. As such, the claims recite a mathematical concept.

Also, we find the steps of claim 13 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); *see also buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350,

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1355 (Fed. Cir. 2014) (claims directed to certain arrangements involving contractual relations are directed to abstract ideas). Thus, we find that the claims recite an abstract idea of a mathematical concept and in the alternative, to a mental process.

Turning to the second prong of the “directed to test”, claim 13 requires a “computer including non-transitory memory. . . at least one processor.” This recitation 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 FR at 52. We find no indication in the Specification, nor do Appellant directs us to any indication, that the operations recited in independent claim 13 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 recitations of claim 13 do not affect an improvement in the functioning of a computer or other technology, do 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 13 is directed to a judicial exception that is not integrated into a practical application and thus is directed to an “abstract idea.”

Turning to the second step of the *Alice* analysis, because we find that the claims are directed to abstract ideas/judicial exceptions, the claims 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 Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 72–73 (2012)).

The introduction of a computer 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

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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 computer at each step of the process is purely conventional. Using a computer 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. In this regard, the ordered combination is just a

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computer with a memory and a processor which is a well understood, conventional and routine device. 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.

The claims do not, for example, purport to improve the functioning of the computer itself. As we stated above, the claims do not affect an improvement in any other technology or technical field. Thus, the claims at issue amount 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. 6–10; Reply Br. 4–9) 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 the claim language is limited by particular content

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that does in fact change the character of the collected information. (Appeal Br. 10). Appellant does not explain what claim language is referred to or how it changes the character of the collected information. In any case, as we stated above, 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*, at 1022. We note that Appellant cites various cases to support this argument but does not explain how the holdings and facts in the various cases are applicable to the instant claims.

Appellant argues that the Examiner erred because the specification refers to a particular solution to a problem or a particular way to achieve a desired outcome as opposed to merely claiming the idea of a solution or outcome in line with the holding in *McRO, Inc. dba Planet Blue v. Bandai Namco Games America Inc.*, 837 F.3d 1299 (Fed. Cir. 2016). (Reply Br. 9). This argument is not persuasive because Appellant has not applied the law and facts in *McRO* to the recitations in the instant claims.

In any case, we are not persuaded that the claimed invention is analogous to the claimed invention in *McRO*. The claims in *McRO* were directed to a specific asserted improvement in computer animation, i.e., the automatic use of rules of a particular type. *McRO*, 837 F.3d at 1313. By contrast, the independent claims under appeal recite only a data processing system that receives, transmits and processes information using a program code or algorithm. Unlike *McRO*, the claims here are not directed to an improvement to a computer process.

In view of the foregoing, we will sustain this rejection as it is directed to claim 13. We will also sustain this rejection as it is directed to the remaining claims because Appellant has not argued the separate eligibility of the remaining claims.

REJECTION UNDER 35 U.S.C. § 112, FIRST PARAGRAPH

The Examiner is of the view that the Specification fails to adequately disclose how the ranking is performed. Specifically, the Examiner finds that there is no written description of how the selecting one of the services, based upon pre-stored service requester preferences is performed. (Final Act. 3).

The Specification discloses that a ranking machine is provided which stores details of the service requester's preferences for service selection and that this is provided in the form of a choice algorithm between options presented at any relevant time. (Spec. 10).

The Examiner finds that the Specification fails to provide the particular algorithm that the ranking machine is applying. Therefore, one skilled in the art would be unable to determine what the applicant was in possession of, i.e. what is the particular algorithm that the applicant was in possession of in order to have the ranking machine perform its function of applying the choice algorithm and pre-stored service requestor preferences. (Final Act. 3).

We are not persuaded of error on the part of the Examiner by Appellant's argument that "choice algorithm" is not recited in the claims and therefore the rejection fails to address the limitations in the claims. Although the Examiner states that the algorithm is not disclosed, the Examiner also states that there is no written description of how the selecting

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step which is “based upon pre-stored service requestor preferences” is performed and thus does base the rejection on the language in claim 13.

In view of the foregoing, we will sustain this rejection of claim 13. We will also sustain this rejection as it is directed to the remaining claims because Appellant has not argued the separate eligibility of these claims.

REJECTION UNDER 35 U.S.C. § 102

We will sustain this rejection because we are unpersuaded by the Appellant’s argument that the Examiner failed to make a direct comparison of the claim language to the Murto reference. (Appeal Br. 14).

First we adopt the Examiner’s findings of fact regarding the Murto reference found on pages 13 to 21 of the Final Action. On these pages, the Examiner provides a detailed analysis of the teachings in the Murto reference with specific reference to the claim limitations in claim 13.

Appellant argues that the Examiner did not map every claim term in claim 13 to the Murto reference. Specifically, Appellant argues that the Examiner did not map the “applying the pre-stored service requestor preferences,” “receiving a bag of results,” “applying the pre-stored service requestor preferences,” and “returning the sequence of results.” However, we find that the Examiner mapped this claim language to the disclosure in Murto on pages 15–20 of the Final Action. The Appellant has not specifically addressed these findings and therefore this argument is not persuasive of error on the part of the Examiner.

We find untimely Appellant’s argument in the Reply Brief that the Examiner’s findings regarding the “bag of results” and the “listening on a port on the directory” are in error. Appellant argues that the Examiner addressed these limitations for the first time in the Answer. This is

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incorrect, the Examiner addressed these limitations on pages 17–19 of the Final Action. We note that these new arguments were raised by Appellant for the first time in the Reply Brief, and they are not in response to a new issue brought up by the Examiner in the Answer. Appellant is reminded that:

[T]he purpose of a reply brief is to ensure the Appellant the opportunity to have the last word on an issue raised by the Examiner. The reply brief enables the Appellant to address any new grounds of rejection the Examiner may have raised in the answer, or to address changes or developments in the law that may have occurred after the principal brief was filed. The reply brief is *not* an opportunity to make arguments that could have been made during prosecution, but were not. Nor is the reply brief an opportunity to make arguments that could have been made in the principal brief on appeal to rebut the Examiner's rejections, but were not. Giving cognizance to belated arguments in a reply would vitiate the force of the requirement in Board Rule 37(c)(1)(vii) that “[a]ny arguments or authorities not included in the brief ... will be refused consideration by the Board, unless good cause is shown.” The reference in that section to the “reply brief filed pursuant to § 41.41” does not create a right for the Appellant to raise an argument in the reply brief that could have been raised in the principal brief but was not. Rather, that reference merely puts Appellants on notice that arguments that could be made in the reply brief, but are not, are waived.

Ex parte Borden, 93 USPQ2d 1473, 1474 (BPAI 2010).

We therefore consider Appellant’s argument raised in the Reply Brief to be waived.

Accordingly, we sustain the rejection of independent claim 13 under 35 U.S.C. § 102(e). We will also sustain this rejection as to the remaining claims because Appellant has not argued the separate eligibility of these claims.

CONCLUSIONS OF LAW

We conclude the Examiner did not err in rejecting claims 13–19 under 35 U.S.C. §§ 101, 112, first paragraph and 102(e).

DECISION

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
13–19, 22	101		13–19	
13–19	<u>112</u>		13–19	
13	102(e)	Murto	13	
Overall Outcome			13–19	

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