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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/330,821	12/09/2008	Anthony L. Carrato	END920080380US1	1494

76933 7590 07/25/2018

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EXAMINER
KONERU, SUJAY

ART UNIT	PAPER NUMBER
3624	

NOTIFICATION DATE	DELIVERY MODE
07/25/2018	ELECTRONIC

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ANTHONY L. CARRATO,
SIEDS EITENS,
JOHN A. FALKI, and
ROBERT G. LAIRD

Appeal 2016-007538
Application 12/330,821[1]
Technology Center 3600

Before HUBERT C. LORIN, MICHAEL W. KIM, and
ROBERT J. SILVERMAN, *Administrative Patent Judges*.

LORIN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Anthony L. Carrato, et al. (Appellants) seek our review under 35 U.S.C. § 134(a) of the Final Rejection of claims 1, 5–9, 12–14, and 18–20. We have jurisdiction under 35 U.S.C. § 6(b).

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[1] The Appellants identify International Business Machines Corporation as the real party in interest. App. Br. 1.

SUMMARY OF DECISION

We AFFIRM.

THE INVENTION

Claim 1, reproduced below, is illustrative of the subject matter on appeal.

> 1. A computer-implemented method of evaluating service oriented architecture ('SOA') governance maturity, the method comprising:
>
> receiving, by a computer, from a plurality of predetermined stakeholders in the SOA for a plurality of SOA governance capabilities, a stakeholder assessed value representing the current maturity of each of the plurality of SOA governance capabilities;
>
> receiving, by the computer, from the plurality of predetermined stakeholders in the SOA for a plurality of SOA governance capabilities, a desired stakeholder maturity value representing a desired maturity of each of the plurality of SOA governance capabilities;
>
> determining, by the computer, for each of the plurality of SOA governance capabilities in dependence upon the plurality of stakeholder assessed values from the stakeholders, a capability value for each of the plurality of SOA governance capabilities, wherein the capability value is a single value representing the maturity of the SOA governance capability calculated using a predetermined formula;
>
> assigning, by the computer, each of the SOA governance capabilities to a domain;
>
> determining, by the computer, in dependence upon the capability values for each of the plurality of SOA governance capabilities of each domain, a domain maturity value for each domain, wherein the domain maturity value is a single value representing

the maturity of the governance of the domain calculated using a predetermined formula;

determining, by the computer, in dependence upon the domain maturity values for each domain an SOA governance maturity value;

determining, by the computer, for each of the SOA governance capabilities in dependence upon the plurality of desired stakeholder maturity values, a desired capability value for each of the SOA governance capabilities,

determining, by the computer, in dependence upon the desired capability values for each of the SOA governance capabilities, a desired domain maturity value for each domain;

communicating, by the computer, the domain maturity value for each domain, the desired domain maturity value for each domain, and the SOA governance maturity value to the predetermined stakeholders of the SOA;

creating, by the computer, recommendations for SOA governance dynamically in dependence upon the SOA governance maturity value, the domain maturity value, and the desired domain maturity value; and

communicating, by the computer, the recommendations for SOA governance to the predetermined stakeholders.

THE REJECTION

The following rejection is before us for review:

Claims 1, 5–9, 12–14, and 18–20 are rejected under 35 U.S.C. § 101 as being directed to judicially-excepted subject matter.

ISSUE

Did the Examiner err in rejecting claims 1, 5–9, 12–14, and 18–20 under 35 U.S.C. §101 as being directed to judicially-excepted subject matter?

ANALYSIS

The rejection of claims 1, 5–9, 12–14, and 18–20 under 35 U.S.C. § 101 as being directed to judicially-excepted subject matter.

The Appellants argued these claims as a group. *See* App. Br. 7–19. We select claim 1 as the representative claim for this group, and the remaining claims 2, 5–9, 12–14, and 18–20 stand or fall with claim 1. 37 C.F.R. § 41.37(c)(1)(iv).

Claim 1 sets out a scheme for communicating recommendations for SOA (Service Oriented Architecture) governance to predetermined stakeholders. Generally-speaking, claim 1 describes a method whereby a generic computer[2] performs nine steps for processing eight types of information in order to provide recommendations. That is, a generic computer

- "receiv[es]" information A from a plurality of predetermined stakeholders in the SOA;
- "receiv[es] information B from the plurality of predetermined stakeholders in the SOA;
- "determin[es] information C for each of [a] plurality of SOA governance capabilities;

[2] Specification, 14:21–24: "Data processing systems useful in evaluating service oriented architecture ('SOA') governance maturity according to various embodiments of the present invention may include computers, servers, routers, other devices, and peer-to-peer architectures, not shown in Figure 1, as will occur to those of skill in the art."

- "assign[s]" information C to a domain;
- "determin[es]" information D;
- "determin[es]" information E;
- "determin[es]" information F;
- "determin[es]" information G;
- "communicat[es]" information D, G, and A "to the predetermined stakeholders of the SOA";
- "creat[es]" information H,

where information

> A = "a stakeholder assessed value representing the current maturity of each of [a] plurality of SOA governance capabilities";
>
> B = "a desired stakeholder maturity value representing a desired maturity of each of the plurality of SOA governance capabilities";
>
> C = "a capability value for each of the plurality of SOA governance capabilities [in dependence upon the plurality of stakeholder assessed values from the stakeholders] wherein the capability value is a single value representing the maturity of the SOA governance capability calculated using a predetermined formula";
>
> D = "a domain maturity value for each domain, wherein the domain maturity value is a single value representing the maturity of the governance of the domain calculated using a predetermined formula [in dependence upon the capability values for each of the plurality of SOA governance capabilities of each domain]"
>
> E = "maturity values for each domain an SOA governance maturity value [in dependence upon the domain]";
>
> F = "a desired capability value for each of the SOA governance capabilities [for each of the SOA governance capabilities in dependence upon the plurality of desired stakeholder maturity values]";

> G = "a desired domain maturity value for each domain [in dependence upon the desired capability values for each of the SOA governance capabilities]";
>
> H = "recommendations for SOA governance dynamically in dependence upon" information A, D, and G.

The result of this scheme — i.e., information H — is communicated to predetermined stakeholders.

Alice Corp. Pty. Ltd. v. CLS Bank Int'l, 134 S. Ct. 2347 (2014) identifies a two-step framework for determining whether claimed subject matter is judicially-excepted from patent-eligibility under 35 U.S.C. § 101.

According to *Alice* step one, "[w]e must first determine whether the claims at issue are directed to a patent-ineligible concept," such as an abstract idea. *Alice*, 134 S. Ct. at 2355.

In that regard, the Examiner determined that claim 1 is

> directed to the abstract idea of evaluating service oriented architecture governance maturity comprising receiving SOA governance capabilities from stakeholders, receiving a desired stakeholder maturity value representing a desired maturity of each of the plurality of SOA governance capabilities, determining a capability value for each of the governance capabilities, assigning each of the SOA governance capabilities to a domain, determining a domain maturity value for each domain, determining an SOA governance maturity value, determining a desired capability value and determining a desired domain maturity value for each domain, communicating the domain maturity value and the SOA governance maturity value to the predetermined stakeholders of the SOA, creating recommendation for SOA governance, and communicating the recommendations for SOA governance to the stakeholders.

Final Rej. 3–4. According to the Examiner, "[t]his can be considered an abstract idea because the claims are related to organized human activity

since stakeholder data is received, determined and communicated and the claims also are related to mathematical relationships." Final Rej. 4.

The Appellants do not challenge the Examiner's characterization of the concept claim 1 is directed to, but rather characterize it more simply as, for example, "[e]valuating SOA governance maturity" (App. Br. 16). The concept can be characterized even more simply; that is, providing recommendations.[3] The method of claim 1 seeks to provide, more specifically, "recommendations *for* SOA governance dynamically in dependence upon" information A, D, and G. But given that SOA "is an architectural style" (Spec., 1:16) and "represents a model" (Spec., 1:21), the difference between providing recommendations *per se* and providing the type of recommendations claim 1 specifically provides for is not patentably consequential. This is so because "[c]laim limitations directed to the content of information and lacking a requisite functional relationship are not entitled to patentable weight because such information is not patent eligible subject matter under 35 U.S.C. § 101." *Praxair Distribution, Inc. v. Mallinckrodt Hospital Products IP Ltd.*, 890 F.3d 1024, 1032 (Fed. Cir. 2018). *Cf. SAP America, Inc. v. Investpic, LLC*, 890 F.3d 1016, 1022 (Fed. Cir. 2018) ("Contrary to InvestPic's suggestion, it does not matter to this conclusion whether the information here is information about real investments. As many

[3] *Cf. Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240–1241 (Fed. Cir. 2016) ("An abstract idea can generally be described at different levels of abstraction. As the Board has done, the claimed abstract idea could be described as generating menus on a computer, or generating a second menu from a first menu and sending the second menu to another location. It could be described in other ways, including, as indicated in the specification, taking orders from restaurant customers on a computer.").

cases make clear, 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." (quoting *Elec, Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1355 (Fed. Cir. 2016) (citing cases)).

The Appellants challenge the determination that the concept to which claim 1 is directed to, irrespective of how it is characterized, is an abstract idea. According to the Appellants, "[t]he emphasis of the [*Alice*] Court is on concepts that are *fundamental and essential* to an area of science or commerce." App. Br. 14.

> [I]n the two leading examples of *Bilski* and *Alice*, as interpreted by the *Alice* Court, hedging and intermediated settlement are treated as fundamental economic practices, core to the cultural domain of contracts. Applicants note in particular that both of these practices are *centuries* old and so fundamental that commerce as we know it simply could not be implemented without them. Claims reading on such abstract ideas according to present jurisprudence ought not be patentable.
>
> . . .
>
> The disproportionate risk of preemption only comes from patents that claim abstract ideas in the sense of fundamental building blocks, not just run-of-the-mill abstract ideas that underlie all inventions. A patent claim is ineligible only when the claim directly recites this kind of fundamental, building block abstract idea (*Mayo/Alice* Step 1), and preempts all, or [at] least a broad range, of implementations of the idea (*Mayo/Alice* Step 2). The ordinary type of preemption that comes from patent claims is an accepted part of the patent system—that is the whole point of claims, to define the metes and bounds of the invention so that others are preempted from making, using, and selling what's inside the bounds.

App. Br. 14–16.

The Appellants argue that the concept the Examiner characterized claim 1 as being directed to contains "114 words which on its face cannot possibly be a fundamental building block of anything, certainly not human ingenuity, science, or technology, not a thing regarding which there should be any concern at all regarding preemption." App. Br. 9–10. Even when the concept is more simply described, "[e]valuating SOA governance maturity . . . has none of the characteristics of an abstract idea according to Alice and the other recent jurisprudence of 35 US.C. § 101." App. Br. 16. The Appellants reason, *inter alia*, that

> [t]aking service oriented architecture or 'SOA' as the underlying accused abstract idea, applicants respectfully submit that, although it may be a fertile ground of invention, SOA is not at all a long prevalent practice, a fundamental building block of human ingenuity, or a basic tool of science. SOA is in fact practically a 21st century creation, entirely incapable of the fundamental nature that composes an abstract idea according to *Alice*. In sharp contrast with the *arbitrage* and *intermediate settlements* of *Bilski* and *Alice*, both of which are hundreds if not thousands of years of age and ***entirely fundamental economically***, SOA in fact is only about fifteen years old, a fact easily determined by quick reference to any number of sources.

App. Br. 16.

The Appellants' central argument is that the concept – whether it be the Examiner's 114-word description, or the Appellants' more simple "evaluating SOA governance maturity" – is not an abstract idea because it is not a fundamental economic practice. The Appellants would presumably take the same position if the concept were described as providing recommendations.

However, the abstract idea category is not so limited.

> [I]n applying the § 101 exception, we must distinguish between patents that claim the "buildin[g] block[s]" of human ingenuity and those that integrate the building blocks into something more, *Mayo*, 566 U.S., at —, 132 S. Ct., at 1303, thereby "transform[ing]" them into a patent-eligible invention, *id.*, at — —, 132 S. Ct., at 1294. The former "would risk disproportionately tying up the use of the underlying" ideas, *id.*, at ——, 132 S.Ct., at 1294, and are therefore ineligible for patent protection.

Alice, 132 S. Ct. at 2354–2355. Thus, the abstract idea category of judicially-excepted subject matter broadly covers building blocks of human ingenuity. Like fundamental economic practices, providing recommendations is such a building block. Providing recommendations is a fundamental practice of human behavior that, for example, has long been universally resorted to, in order to advance a common course of action. Therefore, like fundamental economic practices, providing recommendations is an abstract idea. The Examiner's 114-word concept and the Appellants' more simple "evaluating SOA governance maturity" are no less abstract. They merely describe the abstract idea at lower levels of abstraction.[4]

Also,

> [t]he problem with articulating a single, universal definition of "abstract idea" is that it is difficult to fashion a workable definition to be applied to as-yet-unknown cases with as-yet-unknown inventions. . . . [Thus, instead] of a definition, then, the decisional mechanism courts now apply is to examine earlier cases in which a similar or parallel descriptive nature can be

[4] *See* footnote 3.

> seen—what prior cases were about, and which way they were decided.

Amdocs (Israel) Limited v. Openet Telecom, Inc., 841 F.3d 1288, 1294 (Fed. Cir. 2016). In that regard, we see little difference between the concept of providing recommendations and, for example, the concept "providing personalized recommendations" which has been held to be an abstract idea. *See Personalized Media Communications, LLC v. Amazon.Com, Inc.*, 161 F. Supp. 3d 325 (D. Del. 2015), aff'd, 671 F. App'x 777 (Mem) (Fed. Cir. 2016).

Finally, the claimed method — whereby a generic computer performs nine steps for processing eight types of information in order to provide recommendations — focuses on collecting information, analyzing it, and presenting results. But when "[t]he focus of the asserted claims" is "on collecting information, analyzing it, and displaying certain results of the collection and analysis," the claims are directed to an abstract idea. *Elec. Power Grp.*, 830 F.3d at 1353. That claim 1 more specifically calls for "recommendations for SOA governance dynamically in dependence upon the SOA governance maturity value, the domain maturity value, and the desired domain maturity value; and communicating, by the computer, the recommendations for SOA governance to the predetermined stakeholders" does not affect the determination that claim 1 is directed to an abstract idea. This is so because "collecting information, including when limited to particular content (which does not change its character as information), [is] within the realm of abstract ideas." *Id.* at 1353.

The Appellants' arguments with respect to the step one determination have been considered and are unpersuasive as to error in the Examiner's determination that claim 1 is directed to an abstract idea. We now turn to step two.

Step two is "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*, 134 S. Ct. at 2355 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 US 66, 73 (2012)).

In that regard, the Examiner determined

> [t]he claims do not include additional elements that are sufficient to amount to significantly more than the judicial exception because the additional elements such as a stakeholder assessed value representing the current maturity of each of the plurality of SOA governance capabilities and calculating using a predetermined formula do not recite anything that is beyond conventional and routine use of computers and the additional limitations are for mere data gathering, data transformation and extra solution activity or are merely an extension of the abstract idea.

Final Rej. 4.

The Appellants argue that

> [i]n this case, the claims address the problem of evaluating SOA governance maturity as an aid to administering SOA governance, reciting solutions that are necessarily based in computer technology in order to overcome problems specifically arising in the realm of business administration. The claims' particular organization of attributes of SOA governance step beyond what is well-understood, routine, and conventional in the field and add meaningful limitations that amount to more than generally linking the use of the abstract idea to a particular technological environment. The claims include such additional elements as

> stakeholder maturity values, capability values for governance capabilities, and domain maturity. The claim elements are computer-implemented, but they do not merely recite "use a computer to carry out a business practice," instead reciting a particular way to automate evaluating SOA governance maturity in support of business administration, solving at least one problem faced by business administrators who work with SOA. The claims recite a domain maturity value and a desired domain maturity value for each domain and an SOA governance maturity value by using a predetermined formula, dynamically creating recommendations for SOA governance using the domain maturity value, desired domain maturity value, and SOA governance maturity value, and so on, and so on, each and every limitation of which individually and collectively all add significant patentable elements to any abstract idea that could reasonably be accused of these claims. The present claims recite significantly more than any abstract idea of which they reasonably might be accused and are patent eligible under Step 2B of the *Mayo/Alice* analysis.

App. Br. 18.

The Appellants' argument is unpersuasive. The elements that the Appellants identify are all part of what the Examiner identifies as the abstract idea itself. *See* Final Rej. 3–4. Furthermore, the Appellants' argument goes to the type of information being collected, analyzed and provided as recommendations. But, as we have stated, "collecting information, including when limited to particular content (which does not change its character as information), [is] within the realm of abstract ideas." *Elec. Power Grp.*, 830 F.3d at 1353.

The claimed method employs no more than a general purpose computer and the steps are no more than employing such a generic computer for its most basic functions. *Cf. Bancorp Services, L.L.C. v. Sun Life Assur. Co. of Canada (U.S.)*, 687 F.3d 1266, 1278 (Fed. Cir. 2012) ("[T]he use of a

computer in an otherwise patent-ineligible process for no more than its most basic function—making calculations or computations—fails to circumvent the prohibition against patenting abstract ideas and mental processes."). As recognized by the Supreme Court, "the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention." *See Alice*, 134 S. Ct. at 2358–2359 (concluding claims "simply instruct[ing] the practitioner to implement the abstract idea of intermediated settlement on a generic computer" not patent eligible); *see also Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715–16 (Fed. Cir. 2014) (claims merely reciting abstract idea of using advertising as currency as applied to particular technological environment of the Internet not patent eligible); *Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1344–45 (Fed. Cir. 2013) (claims reciting "generalized software components arranged to implement an abstract concept [of generating insurance-policy-related tasks based on rules to be completed upon the occurrence of an event] on a computer" not patent eligible); and *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333–34 (Fed. Cir. 2012) ("Simply adding a 'computer aided' limitation to a claim covering an abstract concept, without more, is insufficient to render [a] claim patent eligible" (internal citation omitted)).

The Appellants' arguments with respect to the step two determination have been considered and are unpersuasive as to error in the Examiner's determination that claim 1 does not include an element, or combination of elements, sufficient to ensure that the claim 1 method, in practice, amounts

to significantly more than the ineligible recommendation-providing abstract idea itself.

We note the Appellants' discussion that the claimed process does not suffer from a concern over pre-emption. App. Br. 15–16. However, pre-emption is not a separate test. "While preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility." *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015). Because we find the claimed subject matter covers patent-ineligible subject matter, the pre-emption concern is necessarily addressed. "Where a patent's claims are deemed only to disclose patent ineligible subject matter under the *Mayo* framework, [] preemption concerns are fully addressed and made moot." *Id.* at 1379.

We have considered all of the Appellants' remaining arguments and are unpersuaded. Accordingly, because representative claim 1, and claims 5–9, 12–14, and 18–20 which stand or fall with claim 1, are directed to an abstract idea and do not present an "inventive concept," we sustain the Examiner's determination that they are directed to ineligible subject matter under 35 U.S.C. § 101. *Cf. LendingTree, LLC v. Zillow, Inc.*, 656 F. App'x 991, 997 (Fed. Cir. 2016) ("We have considered all of LendingTree's remaining arguments and have found them unpersuasive. Accordingly, because the asserted claims of the patents in suit are directed to an abstract idea and do not present an 'inventive concept,' we hold that they are directed to ineligible subject matter under 35 U.S.C. § 101.").

DECISION

The decision of the Examiner to reject claims 1, 5–9, 12–14, and 18–20 is affirmed.

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