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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DEVAPRASAD K. NADGIR and VIJAY C. TELUKAPALLI

Appeal 2017-000643 Application 13/111,635¹ Technology Center 2100

Before BRADLEY W. BAUMEISTER, JOSEPH P. LENTIVECH, and KARA L. SZPONDOWSKI, *Administrative Patent Judges*.

LENTIVECH, Administrative Patent Judge.

DECISION ON APPEAL²

Appellants seek our review under 35 U.S.C. § 134(a) of the Examiner's rejection of claims 8–21, which constitute all of the claims pending in the application on appeal. We have jurisdiction over the pending claims under 35 U.S.C. § 6(b).

We affirm-in-part and institute a new ground of rejection within the provisions of 37 C.F.R. § 41.50(b).

¹ Appellants list International Business Machines Corporation as the real party in interest. App. Br. 1.

² Our decision refers to Appellants' Appeal Brief filed February 10, 2015 ("App. Br."); Appellants' Supplemental Appeal Brief filed February 19, 2016 ("Supp. App. Br."); Appellants' Reply Brief filed October 4, 2016 ("Reply Br.); the Non-Final Office Action mailed December 10, 2015 ("Non-Final Act."); the Examiner's Answer mailed August 17, 2016 ("Ans."); and original Specification filed May 19, 2011 ("Spec.").

RELATED APPEAL

Appellants assert that Appeal 2015-004150 (13/405,334) is related to the instant Appeal. App. Br. 1.

STATEMENT OF THE CASE

Appellants' Invention

Appellants' invention generally relates to graphically displaying lifecycle information of a governed object in a service registry in combination with the policies associated with the lifecycle states. Spec. 1:6—

- 7. Claims 8 and 15, which are illustrative of the claimed invention, read as follows:
 - 8. A computer program product embodied in a non-transitory computer readable storage medium for graphically displaying lifecycle information of a governed object in combination with policies associated with lifecycle states, the computer program product comprising the programming instructions for:

retrieving properties of said governed object, wherein said properties comprise an object type and a current lifecycle state;

retrieving lifecycle definitions for said current lifecycle state and one or more potential future lifecycle states associated with said governed object;

retrieving policy definitions that apply to said object type, said current lifecycle state and said one or more potential future lifecycle states;

building a table correlating said lifecycle definitions for said current lifecycle state and said one or more potential future lifecycle states with said policy definitions; and

generating a graphical representation detailing said current lifecycle state, transitions to said one or more potential future lifecycle states and said policy definitions that apply to each transition for said governed object using said table.

15. A system, comprising:

a memory unit for storing a computer program for graphically displaying lifecycle information of a governed object in combination with policies associated with lifecycle states; and

a processor coupled to said memory unit, wherein said processor, responsive to said computer program, comprises

circuitry for retrieving properties of said governed object, wherein said properties comprise an object type and a current lifecycle state;

circuitry for retrieving lifecycle definitions for said current lifecycle state and one or more potential future lifecycle states associated with said governed object;

circuitry for retrieving policy definitions that apply to said object type, said current lifecycle state and said one or more potential future lifecycle states;

circuitry for building a table correlating said lifecycle definitions for said current lifecycle state and said one or more potential future lifecycle states with said policy definitions; and

circuitry for generating a graphical representation detailing said current lifecycle state, transitions to said one or more potential future lifecycle states and said policy definitions that apply to each transition for said governed object using said table.

Rejections

Claims 15–21 stand rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter.³ Non-Final Act. 3–6.

³ The rejection of claims 8–14 under 35 U.S.C. § 101 has been withdrawn. Ans. 2.

Claims 8–11, 13, 15–18, and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of McCauley et al. (US 2005/0234849 A1; published Oct. 20, 2005) ("McCauley") and Ayachitula et al. (US 7,509,627 B1; issued Mar. 24, 2009) ("Ayachitula"). Non-Final Act. 6–9.

Claims 12 and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of McCauley, Ayachitula, and Hafermann et al. (US 2008/0066048 A1; published Mar. 13, 2008) ("Hafermann"). Non-Final Act. 10.

Claims 12–14 and 19–21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of McCauley, Ayachitula, and Hargrove et al., *Service Lifecycle Governance with IBM WebSphere Service Registry and Repository*, Redbooks (2009) ("Hargrove"). Non-Final Act. 11–12.

Claims 13 and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of McCauley, Ayachitula, and Desprets and Rieu, *Using WebSphere Service Registry and Repository to Implement and Enforce a Service Life Cycle*, IBM developerWorks (2007) ("Desprets"). Non-Final Act. 12.

ANALYSIS

Rejection of Claims 8–21 under 35 U.S.C. § 103(a)
CLAIMS 8 AND 15

Appellants contend the combination of McCauley and Ayachitula fails to teach or suggest "retrieving properties of said governed object, wherein said properties comprise an object type and a current lifecycle state," as recited in claim 8 and similarly recited in claim 15. Supp. App. Br. 15. Appellants contend McCauley, upon which the Examiner relies, does not teach or suggest "retrieving properties of the governed object" but, instead, "simply teaches that content nodes represent content/data and the current state of a node is a property of the node." Supp. App. Br. 16 (citing McCauley ¶ 50). According to Appellants, an "object" refers to a service object or a logical object derived from documents, as well as instances of such objects, and an object is said to be governed if it currently has a lifecycle associated with it. Supp. App. Br. 17 (citing Spec. 12:17–19). Appellants argue McCauley's content node, which represents content/data, does not "correspond to a governed object, where objects refer to service objects or logical objects derived from documents as well as instances of such objects and an object is said to be governed if it currently has a lifecycle associated with it." *Id*.

The Examiner broadly interprets the claimed "governed object" as including any object having a lifecycle associated with it. Ans. 5. The Examiner further finds the Specification "provide[s] no particular definition of a service object or logical object derived from documents which would preclude the interpretation that the nodes representing content/data in McCauley are equivalent or analogous to the 'governed object' that is claimed." *Id.* (citing Spec. 2, last paragraph).

Appellants' contentions are persuasive. Although we give claims their broadest reasonable interpretation during examination, "the construction cannot be divorced from the specification and the record evidence." *In re Man Machine Interface Technologies LLC*, 822 F.3d 1282,

1286 (Fed. Cir. 2016) (quoting *In re NTP*, *Inc.*, 654 F.3d 1279, 1288 (Fed. Cir. 2011)).

Here, Appellants' Specification provides a "governed object" is an object having an associated lifecycle. Spec. 12:19–20. The Specification further provides that "objects" refer to "service objects or logical objects derived from documents as well as instances of such objects" (Spec. 12:18–19) and that "[s]ervice objects or logical objects are derived from documents (WSDL (Web Service Definition Language) documents; XSD (XML schema definition) documents; XML (extensible mark-up language) documents, WS-Policy documents, etc.) when they are loaded into the service registry environment" (Spec. 2:22–25). "Web Service Definition Language (WSDL), Extensible Mark-up Language (XML) schema, policy or Service Component Architecture (SCA) documents, capture the technical details of what a service can do, how it can be invoked, or what it expects other services to do." Spec. 2:4–8; see also Spec. 1:12–14.

Based on these teachings in the Specification, the broadest reasonable interpretation of "governed object" is an object that (1) has an associated lifecycle; and (2) is derived from a document capturing the technical details of what a service can do, how it can be invoked, or what it expects other services to do (e.g., a service document) when the document is loaded into a service registry environment.

McCauley teaches "[c]ontent nodes represent content/data." McCauley ¶ 53. The Examiner's findings fail to show how a node representing content/data and having a lifecycle associated therewith, as taught by McCauley, teaches or suggests an object having an associated lifecycle and derived from a document capturing the technical details of

what a service can do, how it can be invoked, or what it expects other services to do, as required by claim 8. Accordingly, we do not sustain the Examiner's rejection of claim 8; independent claim 15, which recites corresponding limitations; or claims 9–14 and 16–21, which depend from claims 8 and 15.

Because resolution of this issue is dispositive as to the rejection of claims 8–21 under 35 U.S.C. § 103(a), we need not reach the merits of Appellants' other arguments.

Rejection of claim 15–21 under 35 U.S.C. § 101

In *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347 (2014), the Supreme Court reiterates an analytical two-step framework previously set forth in *Mayo Collaborative Servs. v. Prometheus Laboratories, Inc.*, 566 U.S. 66, 77–78 (2012), "for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts." *Alice*, 134 S. Ct. at 2355. The first step in the analysis is to "determine whether the claims at issue are directed to one of those patent-ineligible concepts," such as an abstract idea. *Id.* If the claims are directed to a patent-ineligible concept, the second step in the analysis is to consider the elements of the claims "individually and 'as an ordered combination" to determine whether there are additional elements that "transform the nature of the claim' into a patent-eligible application." *Id.* (citing *Mayo*, 566 U.S. at 78–79). In other words, the second step is to "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

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significantly more than a patent upon the [ineligible concept] itself." *Id.* (citing *Mayo*, 566 U.S. at 72–73).

The Examiner finds claims 15–21 are directed to non-statutory subject matter. Non-Final Act. 3–6; Ans. 2–4. In particular, the Examiner finds the claims are directed to "the abstract idea of placing existing lifecycle data into a table and displaying the information" and the claims "fail[] to offer meaningful limitations beyond generic computer-related steps." Non-Final Act. 5. The Examiner further finds "[t]he additional hardware elements [recited in independent claim 15] are 'purely functional and generic'" and, therefore, fail to add limitations which amount to significantly more than the abstract idea. *Id*.

Appellants contend the rejection is improper because the Examiner fails to establish a prima facie case of subject matter ineligibility. Supp. App. Br. 4. Appellants argue:

[T]he Examiner has not provided any explanation as to how the Examiner concludes that claims [15]—21 are directed to an abstract idea because they are allegedly directed to "a fundamental economic practice" or "an idea of itself." The Examiner has not provided any legal analysis as to why one should conclude that claims [15]—21 are directed to a fundamental economic practice or an idea of itself. The Examiner simply makes an assertion that claims [15]—21 are directed to an abstract idea since th[ey] are deemed to be directed to a fundamental economic practice or an idea of itself without any articulated reasons.

Supp. App. Br. 4.

Appellants further contend the claims are not directed to an abstract idea. Supp. App. Br. 3–12; Reply Br. 2–5. Appellants argue "the Examiner is mischaracterizing Appellants' claimed invention" because the claims are not simply directed to "placing existing lifecycle data into a table and

displaying the information," nor do they "simply recite displaying information," as alleged by the Examiner." Supp. App. Br. 4. Appellants argue claim 15, instead, builds a table "that correlates the lifecycle definitions for the current lifecycle state and the one or more potential future lifecycle states with policy definitions." Supp. App. Br. 5. Appellants further argue the claims are not directed to an abstract idea because "[t]he claimed invention is directed to an improvement to an existing technological process, namely, graphically displaying the lifecycle information of a governed object in a service registry in combination with the policies associated with the lifecycle status." Reply Br. 2–3 (citing *Enfish*, *LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016)).

Appellants contend that even if the claims were directed to an abstract idea, claims 15–21 "include meaningful limitations so as to qualify as 'significantly more' to become statutory subject matter." Supp. App. Br. 12. According to Appellants, claims 15–21 "are directed to overcoming a business challenge by making it easier for the user to predict the next possible lifecycle states as well as the policies that apply to each next possible transition." Supp. App. Br. 14. Appellants contend, "[t]herefore, the claimed invention has additional limitations that amount to significantly more than a fundamental economic practice or an idea of itself." *Id*.

We do not find Appellants' contentions persuasive. Under *Alice* step one, "claims are considered in their entirety to ascertain whether their character as a whole is directed to excluded subject matter." *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015). "We . . . look to whether the claims . . . focus on a specific means or method that improves the relevant technology or are instead directed to a result or

effect that itself is the abstract idea and merely invoke generic processes and machinery." *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016). The prohibition on the patenting of abstract ideas may not be circumvented simply by drafting claims to include generic computer hardware. *See Alice*, 134 S. Ct. at 2359 (explaining that allowing claims to a computer system configured to implement an abstract idea "would make the determination of patent eligibility 'depend simply on the draftsman's art,' thereby eviscerating the rule that '[1]aws of nature, natural phenomena, and abstract ideas are not patentable") (citations omitted).

Appellants' claims 15–21, when considered in light of the Specification, are directed to the abstract processes of retrieving information of a specific content ("retrieving properties of said governed object;" "retrieving lifecycle definitions for said current lifecycle state and one or more potential future lifecycle states associated with said governed object;" "retrieving policy definitions that apply to said object type, said current lifecycle state and said one or more potential future lifecycle states"), analyzing the retrieved information ("building a table correlating said lifecycle definitions for said current lifecycle state and said one or more potential future lifecycle states with said policy definitions"), and displaying a result of the analysis ("generating a graphical representation detailing said current lifecycle state, transitions to said one or more potential future lifecycle states and said policy definitions that apply to each transition for said governed object using said table"). Information, as such, is intangible, see Microsoft Corp. v. AT&T Corp., 127 S. Ct. 1746, 1756 n.12 (2007), and information collection and analysis, including when limited to particular content, is within the realm of abstract ideas. See, e.g., Internet Patents

Corp. v. Active Network, Inc., 790 F.3d 1343, 1349 (Fed. Cir. 2015);

Digitech Image Techs., LLC v. Elecs. for Imaging, Inc., 758 F.3d 1344, 1351 (Fed. Cir. 2014); CyberSource Corp. v. Retail Decisions, Inc., 654 F.3d 1366, 1370 (Fed. Cir. 2011).

Appellants' argument that the claims are patent eligible because "[t]he claimed invention is directed to an improvement to an existing technological process, namely, graphically displaying the lifecycle information of a governed object in a service registry in combination with the policies associated with the lifecycle status" (Reply Br. 2–3) is not persuasive because the focus of the claims is not on a specific asserted improvement in computer capabilities but, instead, the claims recite limitations that merely invoke computers as a tool. *Enfish*, 822 F.3d at 1335–36. In *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014) claims "necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks" were held to not merely recite an abstract idea. In *Enfish*, claims "directed to a specific improvement to the way computers operate, embodied in [a] self-referential table," were held not to fall within the realm of abstract ideas. *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1336 (Fed. Cir. 2016).

Here, claims 15–21 are not directed to a combined order of specific rules that improve any technological process, but rather invoke computers in the collection and arrangement of data. As such, the claims are directed to an abstract idea.

Turning now to the second step of the *Alice* inquiry, we find nothing in these claims that adds "significantly more" to transform the abstract concepts of retrieving data, analyzing the retrieved data, and displaying a

result of the analysis into a patent-eligible application. *Alice*, 134 S. Ct. at 2357. Appellants' independent claim 15 simply incorporates a general-purpose computer and generic components such as "a memory unit," "a processor," and "circuitry" to perform the abstract concepts of retrieving data, analyzing the retrieved data, and displaying a result of the analysis.

As recognized by the Supreme Court, "the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patenteligible invention." Alice, 134 S. Ct. at 2358–60 (concluding claims "simply instruct[ing] the practitioner to implement the abstract idea of intermediated settlement on a generic computer" are not patent eligible); see also Ultramercial, Inc. v. Hulu, LLC, 772 F.3d 709, 715–16 (Fed. Cir. 2014) (concluding claims merely reciting the abstract idea of using advertising as currency as applied to particular technological environment of the Internet are not patent eligible); Accenture Glob. Servs., GmbH v. Guidewire Software, Inc., 728 F.3d 1336, 1344–45 (Fed. Cir. 2013) (concluding 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" are not patent eligible); Dealertrack, Inc. v. Huber, 674 F.3d 1315, 1333-34 (Fed. Cir. 2012) ("[s]imply adding a 'computer aided' limitation to a claim covering an abstract concept, without more, is insufficient to render [a] claim patent eligible").

Because Appellants' claims 15–21 are directed to a patent-ineligible abstract concept, and do not recite something "significantly more" under the second prong of the *Alice* analysis, we sustain the Examiner's rejection of

these claims under 35 U.S.C. § 101 as being directed to non-statutory subject matter in light of *Alice* and its progeny.

NEW GROUND OF REJECTION

Claim 8 is rejected on a new ground of rejection under 35 U.S.C. § 101 as being directed to non-patentable subject matter.⁴

Independent claim 8 is directed to a computer program product embodied in a non-transitory computer readable storage medium and recites limitations corresponding to the limitations recited in claim 15. We find claim 8 to be directed to non-patentable subject matter for the reasons discussed *supra* with respect to claim 15.

DECISION

We affirm the Examiner's rejection of claims 15–21 under 35 U.S.C. § 101.

We reverse the Examiner's rejection of claims 8–21 under 35 U.S.C. § 103(a).

Pursuant to our discretionary authority under 37 C.F.R. 41.50(b), we enter a new ground of rejection for claim 8 under 35 U.S.C. § 101.

Section 41.50(b) provides that "[a] new ground of rejection . . . shall not be considered final for judicial review."

Section 41.50(b) also provides that Appellants, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of

⁴ We leave to the Examiner to ascertain whether claims 9–14 should be rejected under 35 U.S.C. § 101 as being directed to non-patentable subject matter.

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the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

- (1) Reopen prosecution. Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .
- (2) *Request rehearing*. Request that the proceeding be reheard under § 41.52 by the Board upon the same record.

 37 C.F.R. § 41.50(b).

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).

<u>AFFIRMED-IN-PART</u> 37 C.F.R. § 41.50(b)