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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ALAN HARRISON KEEFER

Appeal 2019-001478
Application 12/566,452
Technology Center 3600

Before MAHSHID D. SAADAT, LINZY T. McCARTNEY, and MICHAEL T. CYGAN, *Administrative Patent Judges*.

SAADAT, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1–21, 23, and 24, which are all the claims pending in this application. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as Guidewire Software, Inc. Appeal Br. 1.

STATEMENT OF THE CASE

Introduction

Appellant's disclosure is directed to a system that saves insurance policy revisions and addresses and stores large amounts of data associated with multiple revisions. *See* Spec. ¶ 5. Claim 1 is illustrative of the invention and reads as follows:

1. An apparatus comprising:
 - an end-user interface;
 - a memory;
 - a processor operably coupled to the end-user interface and the memory and being configured to:
 - provide an end user with an opportunity to revise a current version of an insurance policy, wherein the current version has a corresponding creation date stored therewith in the memory and wherein the current version comprises a plurality of policy elements each having corresponding effective dates and fixed identifiers;
 - prior to revising the current version of the insurance policy:
 - recall from the memory, intact, and without requiring reconstruction, the current version of the insurance policy, wherein the current version of the insurance policy is not editable, and wherein the current version of the insurance policy comprises a plurality of policy elements that are not editable; and
 - generate a duplicate version of the current version of the insurance policy, wherein generating the duplicate version of the current version of the insurance policy comprises duplicating at least some of the non-editable policy elements of the current version, wherein the duplicate copies of the policy elements are editable, and wherein corresponding policy elements of the insurance policy in the current version and in the duplicate version have identical corresponding fixed identifiers;

use input as entered by the end user via the end-user interface to revise a first portion of the duplicate editable policy elements of the duplicate version, wherein a second portion of the duplicate editable policy elements are unrevised;

use the memory to store the revised duplicate version as an intact, now-current version of the insurance policy along with a corresponding creation date and at least one new corresponding effective date, wherein storing the revised duplicate version intact as the now-current version of the insurance policy includes:

storing the first portion of duplicate editable policy elements that were revised; and

storing the second portion of duplicate editable policy elements that were unrevised;

use the memory to store the current version as a now-previous version of the insurance policy that is no longer presently legally effective, wherein storing the current version as the now-previous version includes compressing the now-previous version of the insurance policy at least in part by recording differences between the now-previous version of the insurance policy and the now-current version of the insurance policy; and

in response to a request to retrieve the now-previous version of the insurance policy, reconstruct the now-previous version of the insurance policy at least in part by successively applying the recorded differences from the now-current version of the insurance policy.

Appeal Br. 19–20 (Claims App.).

The Examiner's Rejections

Claims 1–21, 23, and 24 stand rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter. Final Act. 2–5.

Claims 1–21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Heydon (US 2007/0255601 A1; pub. Nov. 1, 2007) and Tinnirello (2006/0036527 A1; pub. Feb. 16, 2006). Final Act. 6–12.

Claims 23 and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Heydon, Tinnirello, and Burton (US 2007/0156463 A1; pub. July 5, 2007). Final Act. 12–14.

ANALYSIS

SECTION 101 REJECTION

We have reviewed the Examiner’s rejection in light of Appellant’s contentions and the evidence of record. We concur with Appellant’s contention that the Examiner erred.

Rejection and Arguments

The Examiner finds “[t]he claimed invention is directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an abstract idea) without significantly more.” Final Act. 2. The Examiner specifically finds the claimed invention “is based on a ‘the series of steps of providing via an interface, recalling from memory, generating copies, inputting via interface, storing elements and retaining first versions and reconstructing previous versions of insurance policies’ are fundamental economic practices and thus directed to an abstract idea.” Final Act. 2–3. The Examiner explains that the recited steps related to “comparing and organizing information for transmission . . . can be performed mentally” and are similar to the concepts that the courts identified as abstract. Final Act. 3. The Examiner further explains:

The claim elements in addition to the abstract idea are processor with memory and interface that performs the steps of comparing and organizing information for transmission to a remote computer.

The additional elements are not sufficient to amount to significantly more than the judicial exception because the

claims do not provide improvements to another technology or technical field, improvements to the functioning of the computer itself and do not provide meaningful limitations beyond general linking the use of an abstract idea to a particular technological environment.

Final Act. 4.

Appellant contends “the Examiner has not looked to the claims as an ordered combination and has ignored the requirements of the individual steps,” such as compressing and storing a now-previous version of the policy and the differences between two versions which are used to reconstruct that version. Appeal Br. 12. Appellant argues “the claims are directed to a specific implementation of a process for managing revisions and tracking insurance policy elements.” Appeal Br. 13. According to Appellant, the claims “recite specific limitations other than what is well-understood, routine, and conventional in the field, and add unconventional steps that confine the claims to a particular useful application,” wherein “[e]xisting systems do not adequately address the concerns presented by multiple policy revisions and revisions with different changes and effective dates,’ where ‘[s]ystems often have difficulty saving both the information concerning what policy elements were effective on a certain date and when those elements were changed.’” Appeal Br. 14 (citing Spec. ¶ 5). Appellant adds that

the compression and reconstruction of previous versions of insurance policies in the manner recited in independent Claims 1, 11-13, 14, and 18 bring improvements to the functioning of existing insurance policy management systems by improving the storage requirements needed to store large amounts of data, as well as improving the efficiency by which previous versions of insurance policies are reconstructed.

Appeal Br. 15–16 (citing Spec. ¶ 49).

Legal Principles

Section 101 of the Patent Act provides “[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 35 U.S.C. § 101. However, the Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable. *E.g.*, *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014) (internal quotation marks and citation omitted).

In determining whether a claim falls within an excluded category, we are guided by the Supreme Court’s two-step framework, described in *Mayo* and *Alice*. *Id.* at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with that framework, we first determine what concept the claim is “directed to.” *See Alice*, 573 U.S. at 219 (“On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.*, the use of a third party to mitigate settlement risk.”); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (“Claims 1 and 4 in petitioners’ application explain the basic concept of hedging, or protecting against risk.”).

Concepts determined to be abstract ideas, and, thus, patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)). Concepts determined to be patent eligible include physical and chemical processes,

such as “molding rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 191 (1981)); “tanning, dyeing, making water-proof cloth, vulcanizing India rubber, smelting ores” (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1853))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

If the claim is “directed to” an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where “we must examine the elements of the claim to determine whether it contains an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Alice*, 573 U.S. at 221 (citation omitted). “A claim that recites an abstract idea must include ‘additional features’ to ensure ‘that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].’” *Id.* (quoting *Mayo*, 566 U.S. at 77). “[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention.” *Id.*

The PTO recently published revised guidance on the application of § 101. USPTO, 2019 REVISED PATENT SUBJECT MATTER ELIGIBILITY GUIDANCE, 84 Fed. Reg. 50 (Jan. 7, 2019) (“Guidance”). Under the Guidance, we first look to whether the claim recites:

- (1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes) (Step 2A, Prong 1); and
- (2) additional elements that integrate the judicial exception into a practical application (*see* MANUAL OF PATENT EXAMINING PROCEDURE (“MPEP”) § 2106.05(a)–(c), (e)–(h) (9th Ed., Rev. 08.2017, 2018) (Step 2A, Prong 2).

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

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

(4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception. (Step 2B.)

See Guidance, 84 Fed. Reg. at 54–56.

Discussion

Claim 1 recites functions performed by a processor, relating to revising a current version of an insurance policy, that includes “recall from the memory” and “generate a duplicate version” of the current version of the insurance policy, “use input as entered by the end user via the end-user interface to revise a first portion of the duplicate editable policy elements of the duplicate version,” and “use the memory to store the revised duplicate version as an intact, now-current version of the insurance policy.” After storing the revised and unrevised portions of the policy, the claim recites storing the current version as a now-previous version of the policy which includes “compressing the now-previous version of the insurance policy at least in part by recording differences between the now-previous version of the insurance policy and the now-current version of the insurance policy” and retrieving the now-previous version of the policy to reconstruct ; and in response to a request to retrieve and reconstruct the now-previous version of the insurance policy “by successively applying the recorded differences from the now-current version of the insurance policy.” *See* Appeal Br. 19–20 (Claims App.).

Even if the recited functionalities shown above are directed to an abstract idea (such as mental processes recited in the limitations related to comparing and organizing information for transmission), the Federal Circuit explains the “directed to” inquiry is not simply asking whether the claims involve a patent-ineligible concept:

The “directed to” inquiry . . . cannot simply ask whether the claims *involve* a patent-ineligible concept, because essentially every routinely patent-eligible claim involving physical products and actions *involves* a law of nature and/or natural phenomenon—after all, they take place in the physical world. *See Mayo*, 132 S. Ct. at 1293 (“For all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.”). Rather, the “directed to” inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether “their character as a whole is directed to the excluded subject matter.”

Enfish, LLC v. Microsoft Corp., 822 F.3d 1327, 1335 (Fed. Cir. 2016); *see also Diehr*, 450 U.S. at 188 (“In determining the eligibility of respondents’ claimed process for patent protection under § 101, their claims must be considered as a whole.”); *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016) (the question is whether the claims as a whole “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”).

Therefore, we proceed to Step 2A, Prong 2 of the Guidance to determine whether additional elements of claim 1 integrate an abstract idea, such as mental processes, into a practical application. Such additional elements may reflect an improvement to a technology or technical field. *See* Guidance, 84 Fed. Reg. at 55. Here we look to see if, for example, (i) any additional elements of the claims reflects an improvement in the functioning

of a computer or to another technological field, (ii) an application of the judicial exception with, or by use of, a particular machine, (iii) a transformation or reduction of a particular article to a different state or thing, or (iv) a use of the judicial exception in some other meaningful way beyond generally linking the use of the judicial exception to a particular technological environment. *See* MPEP § 2106.05(a)–(c), (e)–(h).

We determine additional elements of claim 1 integrate the abstract idea into a practical application, because those elements (“storing the current version as a now-previous version,” “compressing the now-previous version of the insurance policy at least in part by recording differences between the now-previous version of the insurance policy and the now-current version of the insurance policy,” and “reconstruct the now-previous version of the insurance policy at least in part by successively applying the recorded differences from the now-current version of the insurance policy”) reflect specific technological improvements. *See* claim 1. In fact, the recited elements allow storing different versions of insurance policies that are changed over time and generate a large amount of data, which may require a large storage capacity. The recited elements provide a solution that exists in the arrangement of the information to be stored and retrieved for reconstruction of the complete policy document without storing the complete policy information, which is rooted in computer technology. *See DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014) (holding the claims satisfy *Alice* step two because “the claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks”).

Appellant's Specification supports our determination by describing the prior art problem of storing multiple versions of an insurance policy changes which encompass "what policy elements were effective on a certain date and when those elements were changed." *See* Spec. ¶ 5. Appellant's Specification explains storing different policy versions as stated below:

As noted previously, since each change to the policy results in the creation and storage of a new version of the policy, over time, a large number of policy versions may be stored. For large policies that change frequently, this may result in storing a very large amount of data. Instead of storing the complete record of each policy version, the system may compress previous versions of the policy to save space. By one approach, the system is configured to store the currently legally-binding policy version in its entirety, and then to store each prior version by recording only the differences between that prior version and the immediately subsequent version by model number. In this case, prior versions can be reconstructed by successively applying changes from the subsequent version. Since most operations occur relative to the currently bound version (which is stored intact and does not need to be reconstructed), this approach is efficient.

Spec. ¶¶ 49, 65. Such combination of storing the compressed version and the differences between the versions addresses the stated storage concerns.

Because the additional elements of claim 1 integrate an abstract idea, such as mental processes, into a practical application, we determine claim 1 is not directed to an abstract idea. *See* Guidance, Step 2A, Prong 2. For similar reasons, each of independent claims 11–14 and 18, as well as the remaining dependent claims, integrates the mental processes into a practical application, and is not directed to an abstract idea.

Therefore, we do not sustain the rejection of claims 1–21, 23, and 24 under 35 U.S.C. § 101.

SECTION 103 REJECTION

We disagree with Appellant's arguments, and agree with and adopt the Examiner's findings and conclusions in (i) the action from which this appeal is taken (Non-final Act. 8–24) and (ii) the Answer (Ans. 3–8) to the extent they are consistent with our analysis below.

With respect to independent claims 1, 11–14, and 18, Appellant contends that the Examiner erred because the cited portions of Haydon and Tinnirello do not teach or suggest “storing the current version as the now-previous version includes compressing the now-previous version of the insurance policy at least in part by recording differences between the now-previous version of the insurance policy and the now-current version of the insurance policy,” as recited in independent claims 1 and 11–13. Appeal Br. 17. Additionally, Appellant contends the proposed combination fails to teach or suggest the limitation that “a given previous version of the insurance policy is compressed at least in part by recording differences between the given previous version of the insurance policy and a subsequent version of the insurance policy,” as recited in independent claims 14 and 18. *Id.* Appellant specifically argues that paragraph 48 of Tinnirello, which the Examiner relied on for the disputed limitations, does not teach or suggest the recited “compression” and instead, relates to assembling files into “a Zip file or other single electronically secured file that may include compression and/or encryption.” *Id.* Appellant also argues that “Tinnirello does not disclose such compressing of a given/now-previous version of an insurance policy by recording differences between the given/now-previous version of the insurance policy and a subsequent/now-current version of the insurance policy.” Appeal Br. 18; Reply Br. 8–9.

Appellant's arguments challenging the proposed combination of the references are unpersuasive, because they are not directed to the Examiner's specific findings. Nonobviousness cannot be established by attacking the references individually when the rejection is predicated upon a combination of prior art disclosures. *See In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986). The test for obviousness is not whether the claimed invention is expressly suggested in any one or all of the references, but whether the claimed subject matter would have been obvious to those of ordinary skill in the art in light of the combined teachings of those references. *See In re Keller*, 642 F.2d 413, 425 (CCPA 1981). Here, Appellant attacks the prior art references individually, even though the Examiner relied on the combined teachings of Haydon and Tinnirello and cites specific portions of each reference for teaching or suggesting the disputed limitation with sufficient details and states a reasonable rationale for combining those teachings.

First, the Examiner finds Haydon discloses the recited elements of storing an insurance policy and its revisions by recording the current version as the now-previous version and the differences between the now-previous version and the now-current version of the policy. *See* Final Act. 6–7 (citing Haydon ¶¶ 26–32). Additionally, the Examiner finds Tinnirello discloses compressing or encrypting a file, such as the data or documents used in insurance industry. Final Act. 8 (citing Tinnirello ¶ 48); *see also* Ans. 12–13. Therefore, the Examiner has mapped the claimed limitations to the specific portions of the applied prior art.

Second, the Examiner has explained how the proposed modifications to Haydon would have been obvious to one of ordinary skill in the art, based

on the cited teachings of the references. For example, the Examiner finds using the methods of data files compression in Tinnirello would have improved storing the insurance policy versions of Haydon. Final Act. 7. Additionally, the Examiner explains that the improvement is based on combining Haydon’s “insurance policy stored as a plurality of discrete temporally-sequential policy data revisions” with Tinnirello’s “integrating standardized financial statement for collection of data by an insurance company using various compression algorithms for efficiency with different types to include Zip for data, JPEG for images and PDF for documents.”
Ans. 13.

On this record, we are unpersuaded that the Examiner has erred in concluding that the combination of Haydon and Tinnirello renders independent claims 1, 11–14, and 18, as well as the remaining claims which are not argued separately, obvious.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1–21, 23, 24	§ 101	Eligibility		1–21, 23, 24
1–21	§ 103	Haydon, Tinnirello	1–21	
23, 24	§ 103	Haydon, Tinnirello, Burton	23, 24	
Overall Outcome			1–21, 23, 24	

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FINALITY AND RESPONSE

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