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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MATTHIAS FALKENBERG,
STEFAN ALFONS HEPPER, and STEPHAN LAERTZ

Appeal 2018-007216
Application 12/967,351¹
Technology Center 2100

Before JOSEPH L. DIXON, JAMES R. HUGHES, and ERIC S. FRAHM,
Administrative Patent Judges.

FRAHM, *Administrative Patent Judge.*

DECISION ON APPEAL
STATEMENT OF THE CASE

Introduction

Appellants appeal under 35 U.S.C. § 134(a) from a final rejection of claims 1–4, 6, 7, 9–17, and 19–23. Claims 5, 8, and 18 have been canceled.² We have jurisdiction under 35 U.S.C. § 6(b).

¹ According to Appellants, International Business Machines Corporation is the real party in interest (App. Br. 2).

² We refer to Appellants' Specification ("Spec.") filed Dec. 14, 2010; Supplemental Appeal Brief ("App. Br.") filed Aug. 3, 2017; and Reply Brief ("Reply Br.") filed July 5, 2018. We also refer to the Examiner's Final Office Action ("Final Act.") mailed Jan. 25, 2017; Advisory Action mailed April 6, 2017 ("Adv. Act."); and Answer ("Ans.") mailed May 11, 2018.

We reverse.

Exemplary Claim

Appellants' disclosed and claimed invention pertains to optimizing the loading of a web page based on aggregated user preferences for Web page elements of the Web page. Spec. ¶ 1. Claims 1, 7, 14, 20, and 23 are independent, and each recite similar limitations pertaining to dynamically adapting a workflow of a content management system to publish content, including determining which users are currently signed into a groupware application and are currently active and available to approve an information item (*see infra*, limitation [A] recited in claim 1, and commensurate limitations in remaining independent claims 7, 14, 20, and 23). Claim 1, reproduced below (with bracketed matter and emphasis added), is illustrative of the claimed subject matter:

1. A method for adapting a workflow of a content management system, the method comprising:

receiving, at the content management system, at least one created information item created depending on a number of allowed actions established for a particular user who created the at least one information item, in which the at least one information item comprises content to be published, a first information item status level indicative of a present status level of the content within the workflow, and a second information item status level indicative of a number of characteristics of the content within the information item;

executing the workflow via a workflow engine which comprises stages each corresponding to a respective information item status level, such that a next stage of the workflow is determined based on a combination of:

different types of user status information, indicative of a status of the particular user;

the first information item status level; and

the second information item status level; and

[A] *determining which of a plurality of users of the content management system have signed into a groupware application executing on an enterprise portal community associated with the content management system and are currently active on the groupware application so as to be available to currently approve the at least one information item;*

in which a user is chosen among the plurality of users to manage the next stage in the workflow based on the second information item status level; and

in which the user status information comprises a user role status that defines what actions in the workflow each of the plurality of users is allowed to engage in and that further defines, based on the status of each of the plurality of users, those stages in the workflow that may be omitted from the workflow.

Claim 1 of the instant application, reprinted above, is substantially similar in scope with a prior version of claim 1, which was affirmed on appeal in Appeal No. 2014-002782, mailed March 21, 2016. The principal difference between the current version of claim 1 on appeal and the prior version of claim 1 which was affirmed as being anticipated by Edd (US 2002/0184255 A1; published Dec. 5, 2002), is the addition of limitation [A], for which the Examiner currently relies on Peirson, Jr. (US 2009/0025087 A1; published Jan. 22, 2009), as teaching or suggesting.

The Examiner's Rejections

(1) Claims 1–4, 6, 7, 9–17, and 19–23 stand rejected under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter. Ans. 3–24.

(2) Claims 1–4, 6, 7, 9–17, and 19–23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the same base combination of Edd and Peirson, Jr.³ Final Act. 2–19.

³ With regard to the obviousness rejection of claims 4, 13, 17, and 23 over the combination of Edd, Peirson, and Manista (US 2009/0319402 A1;

Issues on Appeal

Based on Appellants' arguments in the Appeal Brief (App. Br. 14–22) and the Reply Brief (4–14), in light of the Examiner's response to Appellants' arguments in the Appeal Brief (Ans. 24–29), the following issues are presented on appeal:

(1) Did the Examiner err in rejecting claims 1–4, 6, 7, 9–17, and 19–23 under 35 U.S.C. § 101, as being directed to a judicial exception (e.g., an abstract idea), without significantly more?

(2) Did the Examiner err in rejecting claims 1–4, 6, 7, 9–17, and 19–23 as being unpatentable over the base combination of Edd and Peirson, Jr. because Peirson, Jr. fails to teach or suggest the method for adapting a workflow of content, including disputed limitation [A], as recited in claim 1, and as commensurately recited in claims 7, 14, 20, and 23?

ANALYSIS

Issue (1): Patent Eligibility Under 35 U.S.C. § 101

Patent-eligible subject matter is defined in 35 U.S.C. § 101 of the Patent Act, which recites:

Whoever 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.

There are, however, three judicially-created exceptions to the broad categories of patent-eligible subject matter in 35 U.S.C. § 101: “[I]aws of

published Dec. 24, 2009), Appellants rely on the same arguments presented for base claims 1, 7, 14, and 20, which are rejected over the base combination of Edd and Peirson (App. Br. 21; Reply Br. 12).

nature, natural phenomena, and abstract ideas.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014) (quotation marks and citation omitted); *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70 (2012).

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*. *Alice*, 573 U.S. at 217–18 (citing *Mayo*, 566 U.S. at 75–77). In accordance with that framework, we first determine what concept the claim is “directed to.” *See id.* 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, 69 (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))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Supreme Court held that “[a] claim drawn to subject matter otherwise

statutory does not become nonstatutory simply because it uses a mathematical formula.” *Diehr*, 450 U.S. at 187; *see also id.* at 191 (“We view respondents’ claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula.”). Having said that, the Supreme Court also indicated that a claim “seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, . . . and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment.” *Id.* (citing *Benson* and *Flook*); *see, e.g., id.* at 187 (“It is now commonplace that an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.”).

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.* (alterations in original) (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. *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (2019) (hereinafter, “Revised Guidance”). Under that guidance, after determining that a claim falls within one of the statutory categories

under § 101 (hereinafter, “USPTO Step 1”), we determine whether the claim recites:

- (1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, mental processes, or certain methods of organizing human activities such as a fundamental economic practice or managing personal behavior or relationships or interactions between people) (hereinafter, “USPTO 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, Jan. 2018)) (hereinafter, “USPTO Step 2A, Prong 2”).

Revised Guidance, 84 Fed. Reg. at 51–52, 54–55. Only if a claim: (1) recites a judicial exception, and (2) does not integrate that exception into a practical application, do we then evaluate whether the claim provides an inventive concept. Revised Guidance, 84 Fed. Reg. at 56; *Alice*, 573 U.S. at 217–18. For example, we 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, and conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception (hereinafter, “USPTO Step 2B”).

Revised Guidance, 84 Fed. Reg. at 56.

USPTO Steps 1 and 2A, Prong 1

Independent claim 1 recites to “[a] method for adapting a workflow of a content management system,” which executes workflow on “a workflow engine” and

determin[es] which of a plurality of users of the content management system have signed into a groupware application executing on an enterprise portal community associated with the content management system and are currently active on the groupware application so as to be available to currently approve the at least one information item

(limitation [A]). Remaining independent claims 7, 14, 20, and 23 recite commensurate limitations drawn to a “content management system for adapting a workflow” (claim 7), a “computer program product for adapting a workflow” (claim 14), a “method of publishing content on a computer network” (claim 20), and a “content management system for dynamically adapting a workflow” (claim 23),” which, on their faces, fall within the four categories of invention under 35 U.S.C. § 101.

The Examiner finds, however, that claims 1, 7, 14, 20, and 23 are directed to a judicial exception, in particular, the abstract ideas (i)

receiving information, executing a workflow, determining a next stage of workflow, determining which users are [signed] . . . into a groupware application and determining an assigned work based on a user role and determining which signed in user can approve the content to publish, based on the user role, which user actions in the workflow process can be bypass[ed]/omitted from the various workflow stages and which users can preferentially approve the information item in a way that can be performed mentally or is analogous to human mental work

(Ans. 3); (ii) “receiving . . . content to publish in a workflow process in which each user is associated with different roles, determining which users

in the groupware applications are signed into and have the authority to approve the item and based on the user roles some of the workflow stages can be bypassed” (Ans. 5); and/or (iii) “determining which users ha[ve] the authority to assign a[] content item in a workflow process based on the user role” (Ans. 6).

Appellants contend that claims 1, 7, 14, 20, and 23 each recite limitations commensurate with limitation [A] in claim 1, which “amounts to a ‘distributed network architecture operating in an unconventional fashion to’ dynamically adapt ‘a workflow of a content management system’” (Reply Br. 13 (citing Spec. ¶ 2)). We agree. Claims 1, 7, 14, 20, and 23 are not directed an abstract idea. We are persuaded by Appellants that claims 1, 7, 14, 20, and 23 are not directed to an abstract idea.

Specifically, the method for adapting a workflow of a content management system recited in claim 1 (and method, systems, and computer program products reciting similar limitations in claims 7, 14, 20, and 23) does not fall into any of the subcategories of abstract ideas enumerated in the Revised Guidance, namely:

(a) Mathematical concepts—mathematical relationships, mathematical formulas or equations, mathematical calculations;

(b) Certain methods of organizing human activity—fundamental economic principles or practices (including hedging, insurance, mitigating risk); commercial or legal interactions (including agreements in the form of contracts; legal obligations; advertising, marketing or sales activities or behaviors; business relations); managing personal behavior or relationships or interactions between people (including social activities, teaching, and following rules or instructions); and

(c) Mental processes—concepts performed in the human mind¹ (including an observation, evaluation, judgment, opinion)

Revised Guidance, 84 Fed. Reg. at 52. In particular, the method of adapting/establishing a workflow for a content management system of claim 1, including (i) receiving created information items based on a number of allowed actions established for a user, (ii) executing stages of workflow, and (iii) determining a specific group of users meeting certain criteria (*see* limitation [A]), does not define any mathematical relationships, formulas, equations, or calculations. These features of claim 1 also do not define one of the enumerated subcategories of methods of organizing human activity. Rather than organizing any economic, commercial, legal, or human-based activity, the claimed method for adapting a workflow of a content management system executes a workflow for information items in a more efficient manner, namely, by dynamically processing workflow based on which users of the system are signed into a groupware application and are currently active and available to approve information items. Claims 7, 14, 20, and 23 recite similar features.

In addition, claims 1, 7, 14, 20, and 23 do not simply generate tasks based on rules to be completed upon the occurrence of an event, as found by the Examiner (*see* Ans. 5, 8, 11–12, 14–15, 18). In contrast, claims 1, 7, 14, 20, and 23 execute a workflow in stages based on dynamically determining which users of the system are signed into a groupware application executing on an enterprise portal community and are currently active and available to approve an information item. In other words, the method for adapting a workflow recited in claim 1 (and as commensurately recited in claims 7, 14,

20, and 23) is not purely a mental process, but requires at least one processor and a computer engine connected to a groupware application executing on an enterprise portal community to make the recited determinations and/or perform the recited functions. Because claims 1, 7, 14, 20, and 23 do not recite subject matter falling into one of the recognized categories of abstract ideas (e.g., mathematical concepts, certain methods of organizing human activity, and mental processes), we are persuaded that the Examiner erred in finding claims 1, 7, 14, 20, and 23 are directed to an abstract idea.

USPTO Steps 2A, Prong 2 and 2B

As we determine claims 1, 7, 14, 20, and 23 are not directed to a judicial exception, we need not consider whether (i) these claims integrate the alleged judicial exception into a practical application under USPTO Step 2A, Prong 2, or (ii) there is an inventive concept under USPTO Step 2B. We are, therefore, persuaded the Examiner erred in rejecting independent claim 1, independent claims 7, 14, 20, and 23, which recite commensurate limitations, and dependent 2–4, 6, 9–13, 15–17, 19, 21, and 22, as being patent-ineligible for the same reasons.

Issue (2): Obviousness Rejections Under § 103(a)

The Examiner rejected claims 1–4, 6, 7, 9–17, and 19–23 under 35 U.S.C. § 103(a) as being unpatentable over the base combination of Edd and Peirson, Jr. Final Act. 2–19. In the Final Office Action (Final Act. 5–6, 9–10, 13, 15, 18), the Examiner relies on paragraphs 37, 61, and 62 of Peirson, Jr. as teaching or suggesting limitation [A] recited in claim 1, and the commensurate limitations recited in claims 7, 14, 20, and 23 (Final Act. 5–10, 20–21; Ans. 16–20). In response to Appellants' arguments (App. Br. 18–21) that Peirson, Jr. fails to teach or suggest limitation [A] of claim 1,

and the similar limitations of claims 7, 14, 20, and 23, the Examiner (*see generally* Ans. 24–29) cites to additional portions of Peirson, Jr., such as Figures 3, 4, and 11, and paragraphs 34, 40, and 43.

Specifically, for example, the Examiner cites Figures 3 and 4 and paragraphs 37, 40, 43, and 54 as teaching or suggesting limitation [A] recited in claim 1 (*see* Ans. 24). However, Peirson, Jr. is silent as to teaching, and the Examiner has not made explicit findings or adequate rationale regarding, the feature of limitation [A] of “determining which of a plurality of users of the content management system *have signed into a groupware application* executing on an enterprise portal community associated with the content management system *and are currently active* on the groupware application” (claim 1) (emphasis added).

Although Peirson, Jr.’s Figures 3 and 4 show a process and interface for obtaining and managing real estate transaction documents (*see* Peirson, Jr. ¶¶ 10, 11), and paragraphs 35, 37, 40, 43, and 54 describe recognizing if a user is a buyer or seller, and allowing a user to approve and sign real estate documents, none of the portions of Peirson, Jr. relied upon by the Examiner determine which of plural users have signed into a “groupware application executing on an enterprise portal community,” as well as which users “are currently active on the groupware application” and are “available to currently approve” an information item. Instead, Peirson, Jr. simply describes a buyer or seller signing into an application and signing documents, regardless of whether or not they are “signed into a groupware application executing on an enterprise portal community associated with the content management system and are currently active on the groupware application” (claim 1).

Appellants have shown the Examiner erred in rejecting claims 1–4, 6, 7, 9–17, and 19–23 as being unpatentable over the base combination of Edd and Peirson, Jr., because Peirson, Jr. fails to teach or suggest a method for adapting a workflow of a content management system including the determination recited in limitation [A], as well as the commensurate limitations recited in claims 7, 14, 20, and 23.

We are, therefore, constrained by the record to find the Examiner erred in rejecting as obvious independent claim 1, and independent claims 7, 14, 20, and 23 and dependent claims 2–4, 6, 9–13, 15–17, 19, 21, and 22, which recite commensurate limitations.

CONCLUSIONS

(1) We reverse the Examiner’s rejection of claims 1–4, 6, 7, 9–17, and 19–23 under 35 U.S.C. § 101, as being directed to a judicial exception (e.g., an abstract idea), without significantly more.

(2) We reverse the Examiner’s rejections of claims 1–4, 6, 7, 9–17, and 19–23 under 35 U.S.C. § 103(a) over the base combination of Edd and Peirson, Jr.

DECISION

We reverse the Examiner’s decision to reject claims 1–4, 6, 7, 9–17, and 19–23.

REVERSED