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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ECKHARD HERZBERGER, PETER KRANCZOCH, and
MARIKA LEMKE

Appeal 2017-006438
Application 13/155,429¹
Technology Center 3600

Before JOHNNY A. KUMAR, CARL L. SILVERMAN, and
JAMES W. DEJMEK, *Administrative Patent Judges*.

KUMAR, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants seek our review under 35 U.S.C. § 134(a) from the Examiner’s final rejection of claims 1, and 3–10, which are all the claims pending in the application. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.²

¹ According to Appellants, Heidelberger Druckmaschinen Aktiengesellschaft is the real party in interest. App. Br. 1.

² Our Decision refers to Appellants’ Appeal Brief filed September 21, 2016 (“App. Br.”); Reply Brief filed March 9, 2017 (“Reply Br.”); Examiner’s Answer mailed January 9, 2017 (“Ans.”); Final Office Action mailed April 21, 2016 (“Final Act.”); and original Specification filed June 8, 2011 (“Spec.”).

STATEMENT OF THE CASE

Appellants' invention relates to "servicing machinery in the graphic arts industry." Spec. ¶ 3.

Claim 1 is illustrative of the claimed subject matter, as reproduced below:

1. A method of servicing a printing press, which comprises the steps of:
 - diagnosing, via a human customer, a printing press malfunction and obtaining operating data containing diagnostic error codes relating to components of the printing press;
 - receiving, via at least one remote service computer, a service request for the printing press having a control computer through a first information channel and generating a service ticket from the service request via the remote service computer, the control computer of the printing press being connected to the at least one remote service computer via the first information channel and a second information channel, the first information channel being one of a telephone connection, an Internet connection or an e-mail connection;
 - receiving, at the remote service computer, the operating data of the printing press via the second information channel and ensuring a correlation of the operating data and the service ticket by using a machine number of the printing press resulting in a correlated service ticket, the second information channel being one of an Internet connection or a telephone connection, the first and second information channels being different information channels and separately connected to the remote service computer;
 - linking the operating data to the correlated service ticket in the remote service computer resulting in linked data via the remote service computer;

subjecting the linked data to a diagnostic fault-finding process by means of the remote service computer;

storing, via the remote service computer, the service ticket in a service tracking system; and

after the diagnostic process has finished or the service ticket has been successfully processed, creating via the remote service computer, a diagnostic entry containing a link to the service ticket in the service tracking system.

App. Br. 16–17 (Claims App.)

EXAMINER’S REJECTIONS³

1. Claims 1 and 3–10 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to a judicial exception.
2. Claims 1 and 3–10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Landau (US 2004/0100650, published May 27, 2004), in view of official notice.

DISCUSSION

Patent-Eligible Subject Matter: Claims 1, and 3–10

To determine whether claims are patent eligible under § 101, we apply the Supreme Court’s two-step framework articulated in *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. 208 (2014). First, we determine whether the claims are directed to a patent-ineligible concept: laws of nature, natural phenomena, and abstract ideas. *Id.* at 217. If so, we then proceed to the second step to consider the elements of the claims “individually and ‘as an ordered combination’” to determine whether there are additional elements

³ The rejection of claims 1, and 3–10 under 35 U.S.C. § 112, first paragraph has been withdrawn by the Examiner. Ans. 2.

that “‘transform the nature of the claim’ into a patent-eligible application.” *Id.* 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 significantly more than a patent upon the [ineligible concept] itself.’” *Id.* at 217–18 (alteration in original) (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 72–73 (2012)).

The Federal Circuit has described the *Alice* step-1 inquiry as looking at the “focus” of the claims, their “character as a whole,” and the *Alice* step-two inquiry as looking more precisely at what the claim elements add—whether they identify an “inventive concept” in the application of the ineligible matter to which the claim is directed. *See Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335–36 (Fed. Cir. 2016); *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015).

Because there is no single definition of an “abstract idea” under *Alice* step 1, the PTO has recently synthesized, for purposes of clarity, predictability, and consistency, key concepts identified by the courts as abstract ideas to explain that the “abstract idea” exception includes the following three groupings:

- (1) Mathematical concepts—mathematical relationships, mathematical formulas or equations, mathematical calculations;
- (2) Mental processes—concepts performed in the human mind (including an observation, evaluation, judgment, opinion); and

- (3) 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).

See 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50, 52 (Jan. 7, 2019) (“PTO § 101 Memorandum”), which is effective on January 7, 2019. According to the PTO § 101 Memorandum, “claims that do not recite [subject] matter that falls within these enumerated groupings of abstract ideas should not be treated as reciting abstract ideas,” except in rare circumstances. 84 Fed. Reg. at 53. Even if the claims recite any one of these three groupings of abstract ideas, these claims are still not “directed to” a judicial exception (abstract idea) and, thus, are “patent-eligible” if “the claim as a whole integrates the recited judicial exception into a practical application of that [judicial] exception.” 84 Fed. Reg. at 53. “Integration into a practical application” requires an additional element or a combination of additional elements in the claim to apply, rely on, or use the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the exception. 84 Fed. Reg. at 53.

For example, limitations that are indicative of “integration into a practical application” include:

- 1) Improvements to the functioning of a computer, or to any other technology or technical field — *see* MPEP § 2106.05(a);

- 2) Applying the judicial exception with, or by use of, a particular machine — *see* MPEP § 2106.05(b);
- 3) Effecting a transformation or reduction of a particular article to a different state or thing — *see* MPEP § 2106.05(c); and
- 4) Applying or using the judicial exception in some other meaningful way beyond generally linking the use of the judicial exception to a particular technological environment, such that the claim as a whole is more than a drafting effort designed to monopolize the exception — *see* MPEP § 2106.05(e).

In contrast, limitations that are not indicative of “integration into a practical application” include:

- 1) Adding the words “apply it” (or an equivalent) with the judicial exception, or mere instructions to implement an abstract idea on a computer, or merely uses a computer as a tool to perform an abstract idea — *see* MPEP § 2106.05(f);
- 2) Adding insignificant extra-solution activity to the judicial exception — *see* MPEP § 2106.05(g); and
- 3) Generally linking the use of the judicial exception to a particular technological environment or field of use — *see* MPEP § 2106.05(h).

See PTO § 101 Memorandum, 84 Fed. Reg. at 54–55 (“Prong Two”).

Examiner’s Determination of Patent Ineligibility

In rejecting claims 1 and 3–10 under 35 U.S.C. § 101, the Examiner determines these claims are directed to an abstract idea of “interpersonal and intrapersonal activities, such as managing relationships or transactions between people, social activities, and human behavior; satisfying or avoiding a legal obligation; advertising, marketing, and sales activities or behaviors; and managing human mental activity,” which “can be described as ‘certain methods of organizing human activity’ and “also be described as ‘an idea 'of

itself”, which includes an idea standing alone, such as an uninstantiated concept, plan or scheme, as well as a **mental process (thinking)** that ‘can be performed in the human mind, or by a human using a pen and paper.’” Final Act. 3. (emphasis added).

In particular, the Examiner finds:

The nature of the **abstract idea** is shown by the following claim language:

“**receiving** ... a service request for a machine being a printing press having a control computer through a first information channel and generating a service ticket from the service request”

“**receiving** ... operating data of the printing press machine via a the second information channel and [3] **ensuring a correlation** of the operating data and the service ticket by using a machine number of the printing press resulting in a correlated service ticket, the second information channel being one of an Internet connection or a telephone connection, the first and second information channels being different information channels and separately connected to the remote service computer”

“**linking** the operating data to the correlated service ... resulting in linked data”

“**subjecting** the linked data to a diagnostic fault-finding process”

“storing ... the service ticket in a service tracking system”

“after the diagnostic process has finished or the service ticket has been successfully processed, creating ... a diagnostic entry containing a link to the service ticket in the service tracking system”

Final Act. 4. (emphasis added).

The Examiner also determines the claims fail to amount to “significantly more than the judicial exception” or contain an “inventive concept” because the additional elements recited

in a claim with an abstract idea include, as a non-limiting or non-exclusive examples: (i) mere instructions to implement the idea on a computer, and/or (ii) recitation of generic computer

structure that serves to perform generic computer functions that are well-understood, routine, and conventional activities previously known to the pertinent industry, such as data entry, collection, display, or reporting.

Final Act. 5–6.

Appellants' Contentions of Patent Eligibility & Analysis

Alice/Mayo—Step 1 (Abstract Idea)

Turning to the first step of the *Alice* inquiry, Appellants contend:

[T]he claims of the instant application relate to a method of servicing a printing press and has nothing to do with the design of a human being nor anything relating to a physical composition of a human. Certainly claim 1 recites that a printing press operator does an initial diagnosis and obtains diagnostic error codes. This has nothing to do with claiming a human, it is merely describing how diagnostic error codes are initially obtained. We note that most if not all non-computer based method claims require some form of human input or activity to initiate or carry out the method. Therefore following the Examiner's logic, any method claim requiring any form of human input or assistance (inherent or directly recited) is ineligible subject matter under 35 USC §101. We simply disagree as this would eliminate nearly all method claims as human assistance is inherently needed even in computer based claims.

Reply Brief 1–2.

Claim 1 recites (numbering added):

1. A method of servicing a printing press, which comprises the steps of:

[1] diagnosing, via a human customer, a printing press malfunction and obtaining operating data containing diagnostic error codes relating to components of the printing press;

[2] receiving, via at least one remote service computer, a service request for the printing press having a control computer

through a first information channel and generating a service ticket from the service request via the remote service computer, the control computer of the printing press being connected to the at least one remote service computer via the first information channel and a second information channel, the first information channel being one of a telephone connection, an Internet connection or an e-mail connection;

[3] receiving, at the remote service computer, the operating data of the printing press via the second information channel and [4] ensuring a correlation of the operating data and the service ticket by using a machine number of the printing press resulting in a correlated service ticket, the second information channel being one of an Internet connection or a telephone connection, the first and second information channels being different information channels and separately connected to the remote service computer;

[5] linking the operating data to the correlated service ticket in the remote service computer resulting in linked data via the remote service computer;

[6] subjecting the linked data to a diagnostic fault-finding process by means of the remote service computer;

[7] storing, via the remote service computer, the service ticket in a service tracking system; and

[8] after the diagnostic process has finished or the service ticket has been successfully processed, creating via the remote service computer, a diagnostic entry containing a link to the service ticket in the service tracking system.

As correctly recognized by the Examiner (Final Act. 4), steps 1 through 6 of claim 1 are nothing more than “mental processes” that could be performed in the human mind or by a human using a pen and paper—a

subject matter that falls within the three types of abstract ideas identified by the PTO § 101 Memorandum. *See CyberSource*, 654 F.3d at 1372–73 (“[A] method that can be performed by human thought alone is merely an abstract idea and is not patent-eligible under § 101.”); *see also In re Comiskey*, 554 F.3d 967, 979 (Fed. Cir. 2009) (“[M]ental processes—or processes of human thinking—standing alone are not patentable even if they have practical application.”); *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972) (“Phenomena of nature, . . . *mental processes*, and abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work.” (Emphasis added)). Additionally, mental processes remain unpatentable even when automated to reduce the burden on the user of what once could have been done with pen and paper. *CyberSource*, 654 F.3d at 1375 (“That purely mental processes can be unpatentable, even when performed by a computer, was precisely the holding of the Supreme Court in *Gottschalk v. Benson*.”).

For example, steps [1] through [6] of claim 1 of diagnosing, receiving of a service request and operating data and correlating one with the other based on the machine number (i.e., to get a correlated request and linked data), and subjecting the linked data to a diagnostic fault-finding process, as recited in Appellants’ method claim 1 can be performed by a technician through observation, evaluation, and judgment.

We discern no additional element (or combination of elements) recited in Appellants’ claims 1, and 3–10 that integrate the judicial exception into a practical application. *See* PTO § 101 Memorandum, 84 Fed. Reg. at 54–55 (“Prong Two”). For example, Appellants’ claims 1, and 3–10 do not (1) improve the functioning of a computer or other technology, (2) are not

applied with any particular machine (except for a generic computer), (3) do not effect a transformation of a particular article to a different state, and (4) are not applied in any meaningful way beyond generally linking the use of the judicial exception to a particular technological environment, such that the claim as a whole is more than a drafting effort designed to monopolize the exception. *See* MPEP §§ 2106.05(a)–(c), (e)–(h).

For these reasons, we agree with the Examiner’s determination that Appellants’ claims 1, and 3–10 are directed to an abstract idea that is not integrated into a practical application.

Alice/Mayo—Step 2 (Inventive Concept)

In the second step of the *Alice* inquiry, Appellants argue:

Applicants’ particularly claimed invention improves the functioning of computers by enabling the computer to perform improved diagnostic processing over what was previously possible and allowing increased flexibility in the diagnostic process. The CAFC recently decided *Amdocs (Israel) Limited v. Openet Telecom, Inc., et al.*, 2016 WL 6440387 (2016), wherein the claims were found to be eligible under 35 U.S.C. § 101. More particularly, in *Amdocs*, the CAFC found that generic hardware operated in an unconventional manner to achieve an improvement in computer functionality, was patent eligible subject matter.

Reply Br. 3.

Appellants’ argument is not persuasive. Under current Federal Circuit precedent, an “inventive concept” under *Alice* step 2 can be established by showing, for example, that the patent claims:

- (1) provide a technical solution to a technical problem unique to the Internet, e.g., a “solution . . . necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks”

(*DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014));

- (2) transform the abstract idea into “a particular, practical application of that abstract idea,” e.g., “installation of a filtering tool at a specific location, remote from the end-users, with customizable filtering features specific to each end user” (*BASCOM Global Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1352, 1350 (Fed. Cir. 2016)); or
- (3) “entail[] an unconventional technological solution ([e.g.,] enhancing data in a distributed fashion) to a technological problem ([e.g.,] massive record flows [that] previously required massive databases)” and “improve the performance of the system itself” (*Amdocs (Israel) Ltd. v. Openet Telecom, Inc.* 841 F.3d 1288, 1300, 1302 (Fed. Cir. 2016).

Similarly, as recognized by the PTO § 101 Memorandum, an “inventive concept” under *Alice* step 2 can also be evaluated based on whether an additional element or combination of elements:

- (1) add a specific limitation or combination of limitations that are not well-understood, routine, conventional activity in the field, which is indicative that an inventive concept may be present (*see* MPEP § 2106.05(d)); or
- (2) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception, which is indicative that an inventive concept may not be present.

See PTO § 101 Memorandum, 84 Fed. Reg. at 56.

In this case, however, we find no element or combination of elements recited in Appellants’ claims 1, and 3–10 that contains any “inventive concept” or adds anything “significantly more” to transform the abstract concept into a patent-eligible application. *Alice*, 573 U.S. at 221–22. For

example, Appellants' limitations of "diagnosing, receiving of a service request and operating data and correlating one with the other based on the machine number (i.e., to get a correlated request and linked data), and subjecting the linked data to a diagnostic fault-finding process" are not rooted in computer technology; nor do they (1) improve the functionality of a computer or provide any technical solution to a technical problem as required by *DDR Holdings*; (2) provide any particular practical application as required by *BASCOM*; or (3) entail an unconventional technological solution to a technological problem as required by *Amdocs*. Instead, Appellants' invention simply uses generic computer components to perform the abstract ideas of diagnosing, receiving of a service request and operating data and correlating one with the other based on the machine number (i.e., to get a correlated request and linked data), and subjecting the linked data to a diagnostic fault-finding process. In fact, the only "additional elements" recited in Appellants' claims merely implement the abstract idea on generic computing element (i.e., a computer). However, the use of a generic computer device does not alone transform an otherwise abstract idea into patent-eligible subject matter. As our reviewing court has observed, "after *Alice*, there can remain no doubt: recitation of generic computer limitations does not make an otherwise ineligible claim patent-eligible." *DDR Holdings*, 773 F.3d at 1256 (citing *Alice*, 573 U.S. at 223). Moreover, Appellants have not shown any specific limitation in claims 1, and 3–10 beyond the judicial exception that is not "well-understood, routine, and conventional" in the field (*see* MPEP § 2106.05(d)).

Because Appellants' claims 1, and 3–10 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 claims 1, and 3–10 under 35 U.S.C. § 101.

35 U.S.C. § 103: Claims 1, and 3–10

We have considered all of Appellants’ arguments and any evidence presented. With the exception of the Examiner’s rejection of dependent claims 3 and 6 (reversed *infra*), we disagree with Appellants’ arguments, and we adopt as our own: (1) the findings and legal conclusions set forth by the Examiner in the Final Office Action from which this appeal is taken, and (2) the findings, legal conclusions, and explanations set forth in the Answer in response to Appellants’ arguments (Ans. 3–5). We highlight and address specific findings and arguments for emphasis in our analysis below.

*Rejection of Independent Claim 1 under 35 U.S.C. § 103(a)*⁴

Appellants contends “Landau relates to servicing a copier” rather than the claimed “printing press.” App. Br. 8–9.

The Examiner finds, and we agree “[t]he method of the instant application is the same if the device were a printing press, a printer, or a copier. Indeed, the method of the instant application applies to any piece of machinery or equipment equipped with microprocessor controls and connectivity to the internet.” Ans. 2. *See also*, Landau, ¶ 2 (copiers, printers, scanners and fax machines.).

Regarding Appellants’ contentions on page 10 of the Appeal Brief, Appellants argue features not recited in the claims or not excluded by

⁴ Appellants did not provide separate arguments with respect to the patentability of claims 4, 5, and 7–10.

the language of the claims. For example, regarding Appellants' contention about the "two or more channels," claim 1 does not preclude Landau's feature to "instruct an internal technician about a slight malfunction." App. Br. 10. *See also* Landau, ¶ 88.

Regarding Appellants' contention about using the "same remote service computer" for the service request and the operating data (App. Br. 10), Landau explicitly discloses "internal servicing computer system 226a to evaluate any error states and service requirements which arise in accordance with predetermined criteria," (¶ 88), and "all internal data of the machines can be collected and evaluated centrally by the servicing computer system 226a" (¶ 89).

In the Reply Brief (pages 4 through 6), Appellants present for the first time the new argument that Landau does not teach or suggest the claimed "linking the operating data to the correlated service ticket in the remote service computer." This is a new argument made for the first time in the Reply Brief. In the absence of a showing of good cause by Appellants, we decline to consider an argument raised for the first time in the Reply Brief. This is because, as the Examiner has not been provided a chance to respond, these arguments would be deemed waived. *See* 37 C.F.R. § 41.41(b)(2) (2016); *In re Hyatt*, 211 F.3d 1367, 1373 (Fed. Cir. 2000) (noting that an argument not first raised in the brief to the Board is waived on appeal); *Ex parte Nakashima*, 93 USPQ2d 1834, 1837 (BPAI 2010) (explaining that arguments and evidence not timely presented in the Principal Brief, will not be considered when filed in a Reply Brief, absent a showing of good cause explaining why the argument could not have been presented in the Principal Brief); *Ex parte Borden*, 93 USPQ2d 1473, 1477 (

BPAI 2010) (informative) (“Properly interpreted, the Rules do not require the Board to take up a belated argument that has not been addressed by the Examiner, absent a showing of good cause.”). On this record, Appellants have not provided such a showing of good cause.

Because the Appellants have not persuaded us the Examiner erred, we sustain the rejections of claims 1, 4, 5, and 7–10.

Rejection of Dependent Claims 3 and 6 under 35 U.S.C. § 103(a)

Claim 3 recites, in pertinent part “generating an error message when a linking of the diagnostic entry with the service ticket fails.” (hereinafter “disputed limitations”).

In support of the rejection of claim 3, the Examiner relies on Landau, ¶¶ 22, 67 (Final Act. 9; Ans. 5, 6).

Appellants admit “Landau teaches reading out the diagnostic entry,” but contend “Landau does not teaching linking it to a service ticket or generating an error message if the linking fails.” App. Br. 13, 14.

We agree with the Appellants as our interpretation of the cited portions of Landau coincides with that of the Appellants. In particular, the Examiner has not established, and we do not find readily, how the cited portions of Landau teach the disputed limitations. To affirm the Examiner on this record would require considerable speculation on our part. We decline to engage in such speculation.

Accordingly, for essentially the same reasons argued by the Appellants (App. Br. 13, 14), we reverse the Examiner’s rejection of dependent claim 3, and claim 6 that is dependent upon claim 3.

DECISION

We affirm the Examiner's rejection of claims 1, and 3–10 under 35 U.S.C. § 101.

We affirm the Examiner's decision rejecting claims 1, 4, 5, and 7–10 under pre-AIA 35 U.S.C. § 103(a).

We reverse the Examiner's decision rejecting claims 3 and 6 under pre-AIA 35 U.S.C. § 103(a).

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