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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte XUEJUN XU and
KATHERINE K. NADELL

Appeal 2020-001852
Application 13/925,085
Technology Center 3600

Before RICHARD M. LEBOVITZ, FRANCISCO C. PRATS, and
RACHEL H. TOWNSEND, *Administrative Patent Judges*.

LEBOVITZ, *Administrative Patent Judge*.

DECISION ON APPEAL

The Examiner rejected the claims under 35 U.S.C. § 101 as reciting patent ineligible subject matter, and under 35 U.S.C. § 112 as lacking a written description and as indefinite. Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject the claims. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

¹ We use the word "Appellant" to refer to "applicant" as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as Adobe Inc. Appeal Br. 3.

STATEMENT OF THE CASE

The Examiner finally rejected the claims as follows:

1. Claim 21, 24, 25, 28, 30, 33, 34, 36, 37, 39, and 41–50 under 35 U.S.C. § 101 because the claimed invention is directed to an abstract idea without significantly more. Final Act. 4.

2. Claims 21, 24, 25, 28, 30, 33, 34, 36, 37, 39, and 41–50 under 35 U.S.C. § 112(a) or 35 U.S.C. § 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement. Final Act. 18.

3. Claims 21, 24, 25, 28, 30, 33, 34, 36, 37, 39, and 41–50 under 35 U.S.C. § 112(b) or 35 U.S.C. § 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention. Final Act. 26.

Claim 21 is representative and reads as follows (bracketed numbers added for reference to the limitations in the claim):

21. A method implemented by a server computing device, the method comprising:

[1] receiving, by the server computing device, a request to transfer a software license installed on a first client computing device from the first client computing device to a second client computing device, the request including an identifier of the software license;

[2] determining, by the server computing device, whether the identifier is valid; and

[3] based on the determining that the identifier is valid:

[4] creating a deactivation message by the server computing device;

[5] sending the deactivation message from the server computing device to the first client computing device, the deactivation message causing the first client computing device to deactivate the software license installed on the first client computing device;

[6] receiving a deactivation response from the first client computing device after the software license installed on the first client computing device is deactivated;

[7] in response to receiving the deactivation response, incrementing a license instance count for the software license;

[8] creating an activation message by the server computing device containing the identifier; and

[9] sending the activation message containing the identifier from the server computing device to the second client computing device, the activation message causing the second client computing device to activate the software license to make an associated application usable on the second client computing device.

§ 101 REJECTION

Principles of Law

Under 35 U.S.C. § 101, an invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” However, not every discovery is eligible for patent protection. *Diamond v. Diehr*, 450 U.S. 175, 185 (1981). “Excluded from such patent protection are laws of nature, natural phenomena, and abstract ideas.” *Id.* The Supreme Court articulated a two-step analysis to determine whether a claim falls within an excluded category of invention. *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. 208 (2014); *Mayo Collaborative Servs. v. Prometheus Labs, Inc.*, 566 U.S. 66, 75–77 (2012).

In the first step, it is determined whether the claims at issue recite one of those patent-ineligible concepts. *Alice*, 573 U.S. at 217. If it is determined that the claims recite an ineligible concept, then the second step of the two-part analysis is applied in which it is asked “[w]hat else is there in the claims before us?” *Id.* (citation omitted) (alteration in original).

The Court explained that this step involves a search for an ‘inventive concept’ — *i.e.*, an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’

Alice, 573 U.S. at 217–218 (citing from *Mayo*, 566 U.S. at 75–77) (alteration in original).

Alice, relying on the analysis in *Mayo* of a claim directed to a law of nature, stated that in the second part of the analysis, “the elements of each claim both individually and ‘as an ordered combination’” must be considered “to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Alice*, 573 U.S. at 217 (citation omitted).

The PTO published guidance on the application of 35 U.S.C. § 101. USPTO’s January 7, 2019 Memorandum, *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50, 51–57 (2019) (“Eligibility Guidance”). This guidance provides additional direction on how to implement the two-part analysis of *Mayo* and *Alice*.

Step 2A, Prong One, of the 2019 Guidance, looks at the specific limitations in the claim to determine whether the claim recites a judicial exception to patent eligibility. In Step 2A, Prong Two, the claims are examined to identify whether there are additional elements in the claims that integrate the exception into a practical application, namely, is there a “meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception.” Eligibility Guidance, 84 Fed. Reg. 54 (2. Prong Two).

If the claim recites a judicial exception that is not integrated into a practical application, then as in the *Mayo/Alice* framework, Step 2B of the Eligibility Guidance instructs us to determine whether there is a claimed “inventive concept” to ensure that the claims define an invention that is significantly more than the ineligible concept, itself. Eligibility Guidance, 84 Fed. Reg. 56.

With these guiding principles in mind, we proceed to determine whether the claimed subject matter in this appeal is eligible for patent protection under 35 U.S.C. § 101.

Discussion

Claim 21 is directed to a “method.” Following the first step of the *Mayo/Alice* analysis, we find that the “method” claim is also a “process,” and therefore falls into one of the broad statutory categories of patent-eligible subject matter under 35 U.S.C. § 101. We, thus, proceed to Step 2A, Prong One, of the Eligibility Guidance.

Step 2A, Prong One

In Step 2A, Prong One, of the Eligibility Guidance, the specific limitations in the claim are examined to determine whether the claim recites a judicial exception to patent eligibility, namely whether the claim recites an abstract idea, law of nature, or natural phenomenon.

In the Final Action, the Examiner stated “the claimed invention is directed to ‘mental process of controlling the consumption of content through licensing (e.g. DRM)’ without significantly more.” Final Act. 5 (emphasis removed). The Examiner further stated the claim limitations recite the abstract idea of mathematical concepts and mental processes. *Id.* at 7. The Examiner did not identify which of the claim limitations are

mathematical or mental processes, but rather highlighted substantially all the steps of claim 21 as reciting an abstract idea, with no analysis explaining the reason for this determination. *Id.* at 6–7. In the Answer, the Examiner repeated in part what was said in the Final Action, but left out the phrase “mental process”, stating that the claims are “directed to the abstract idea of controlling the consumption of content through licensing (e.g. DRM), without significantly more.” Ans. 7.

The Examiner did not establish that any of the claim limitations recite a mental process or mathematical concept, two of the enumerated categories of abstract ideas listed in the Eligibility Guidance. 84 Fed. Reg. 52. The claim comprises making a request to a server to transfer a software license (step [1]), determining whether a valid software license accompanied the request (step [2]), and if the request is valid (step [3]), creating deactivation and activation messages, and sending and receiving them (steps [4]–[6], [8], [9]). These recited steps in claim 21 deactivate and activate software (steps [5] and [9]) by sending messages, steps which could not be performed mentally because they execute an operation on software which is loaded on a computing device. For this reason, we find that the steps could not practically be performed in a human mind. Thus, we do not agree that the steps of the claim, under their broadest reasonable interpretation, recite the abstract idea of a “mental process.”

While we do not agree with the Examiner’s categorization of the abstract idea recited in claim 21, we do agree that claim 21 recites an abstract idea. Claim 21 is directed to a method in which a software license is transferred from one computing device to another (step [1]: “receiving, by the server computing device, a request to transfer a software license installed

on a first client computing device from the first client computing device to a second client computing device”). A software license authorizes a user to use a software producer’s software. We consider this type of activity to be a “legal interaction,” one of the examples of the abstract ideas of “[c]ertain methods of organizing human activity” (Eligibility Guidance, 84 Fed. Reg. 52) because the transfer of the license gives the transferee legal permission to use the software. Accordingly, having determined that claim 21 recites an abstract idea, we proceed to Step 2A, Prong Two, of the Eligibility Guidance.

Step 2A, Prong Two

Prong Two of Step 2A under the 2019 Eligibility Guidance asks whether there are additional elements that integrate the exception into a practical application. As in the *Mayo/Alice* framework, we must look at the claim elements individually and “as an ordered combination” to determine whether the additional elements integrate the recited abstract idea into a practical application. The Eligibility Guidance explains that “[a] claim that integrates a judicial exception into a practical application will 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 judicial exception.” Eligibility Guidance, 84 Fed. Reg. 54. Integration into a practical application is evaluated by identifying whether there are additional elements individually, and in combination, which go beyond the judicial exception. Eligibility Guidance, 84 Fed. Reg. 54–55.

The PEG Update explains that “first the specification should be evaluated to determine if the disclosure provides sufficient details such that

one of ordinary skill in the art would recognize the claimed invention as providing an improvement.” Update to Subject Matter Eligibility 12.²

We begin with the Specification. The Specification discloses that “software producers rely on software activation techniques to help combat piracy while minimizing the hassle to legitimate users of their software.” Spec. ¶ 2. The Specification explains that one technique “involves sending a license number or key for the software over the Internet to an activation server” which “verifies the license number or key and sends back an activation message to the application informing the application about whether the activation was successful,” unlocking and allowing the user to use the software. *Id.*

The Specification states, however, “there is no easy way for the user to transfer the license of software installed on one machine to another machine.” Spec. ¶ 3. For example if a user buys a new computer, the user typically reinstalls the program on the new computer, and uses the serial number or key to activate it. *Id.* However, the Specification states that “allowing this type of activation reduces the amount of control software producers have over the activation of their software.” *Id.*

The Specification further explains that one of the problems arising in software license transfer is “the risk of more instances of application 202 being in an activated state than the software license allows.” Spec. ¶ 24. For example, the Specification discloses that if the deactivation request is sent to the server and the server increments the license count before the application

² October 2019 Update: Subject Matter Eligibility, Available at https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf (last accessed Jun. 9, 2020) (“PEG Update”).

is deactivated on the client, it is possible for the client to disconnect from the server prior to receipt of the deactivation message, and therefore impermissibly keep the application software activated. *Id.*

The Specification discloses how Appellant's invention facilitates transferring software from one machine (client) to another. Spec. ¶¶ 4, 5. The Specification explains that this is accomplished by sending, upon receipt of a request and a valid software identifier, a deactivation message to the first client computer which "deactivates the software license, thereby rendering the associated application unusable" on the first client computer. Spec. ¶¶ 5, 6. After receipt of a deactivation response from the first client computer (Spec. ¶ 5), an activation message is created and sent to a second client computer, which "activates the software license to make the associated application usable on the second client." Spec. ¶ 8. Thus, another instance of the software license is not allowed until a deactivation response is received from the device by the server. These steps are recited in claim 21 (steps [1], [2], [5]–[7]).

Appellant identifies the problem of software license transfer described in the Specification as a "digitally-rooted challenge, which . . . involves transferring a software license from a first client computing device to a second client computing device." Appeal Br. 24. Consistent with the Specification, Appellant states:

For example, if a computing device sends a deactivation request to an activation server and the activation server increments the license instance count before the application is actually deactivated at the computing device, it may be possible for a user to disconnect a network connection between the computing device and the network prior to the deactivation message reaching the computing device. Doing so would result in another available instance of the application on the activation

server that could in turn be activated on a second computing device while the application is still activated on the computing device.

Appeal Br. 26.

To solve this problem, Appellant states that “claim 21 describes in a specific manner how a license count is incremented in response to receiving a deactivation response from the first client computing device *after* the software license installed on the first client computing device is deactivated.” Appeal Br. 26. As explained by Appellant, the stated solution to the technical problem is reflected in claim 21, specifically in how a deactivation message is created and sent to the first computing device by the server to deactivate the software license (steps [4], [5]). A deactivation response from the device is sent to the server (step [5]). Upon receiving this response (step [6]), the license instance count is incremented (step [7]) and the second computing device can activate the software license and associated program (steps [8], [9]). Therefore, as explained in the Specification, only after the software license is deactivated on the first computer can the second computer activate the license and use the associated program.

The Examiner responded that none of the recited “limitations reflect an improvement in the functioning of a computer, or an improvement to other technology or technical field, applies or uses a judicial exception in some other meaningful way beyond generally linking the use of the judicial exception to a particular technological environment.” Ans. 7. The Examiner also stated the additional elements “do not amount to significantly more than the abstract idea of ‘controlling the consumption of content through licensing (e.g. DRM)’ to control the consumption of content.” *Id.* at 8.

As explained above, the claim is doing more than controlling “consumption of content” as stated by the Examiner, but rather is providing a way to transfer a software license from a first device to a second device by using a deactivation message and deactivation response to determine when the software can be activated on the latter device. The Examiner denies this is an improvement to a technical field or technology, but provides no explanation as to why receiving the deactivation response and incrementing a license count in response thereto before activating the license on a second device is not a patent-eligible improvement to software license transfer. Computer-executable instructions, namely software, is patent-eligible when a specific implementation of a solution to a problem is claimed (*see, e.g., McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299 (Fed. Cir. 2016)), as is the case here.

Accordingly, because the claim provides a solution to a technical problem, we conclude that the abstract idea is integrated into a practical application. The rejection of claim 21 is reversed.

Independent claims 30 and 39 have substantially the same limitations as claimed 21 and the § 101 rejection of these claims are reversed, as well.

Dependent claim 25, 28, 33, 34, 36, 37, and 41–50 incorporate all the limitation of the independent claims and therefore the rejection of these claims is reversed for the same reasons.

WRITTEN DESCRIPTION REJECTION

The Examiner finds that step [5] and [9] of claim 21 lack a written description. Ans. 9–10. The limitations identified by the Examiner as defective under 35 U.S.C. § 112 are as follows:

the deactivation message causing the first client computing device to deactivate the software license installed on the first client computing device,

the activation message causing the second client computing device to activate the software license to make an associated application usable on the second client computing device.

The Examiner states that the Specification “is silent” about “the disclosure of the computer and the algorithm (e.g., the necessary steps and/or flowcharts) that perform the claimed functions in sufficient detail such that one of ordinary skill in the art can reasonably conclude that the inventor invented the claimed subject matter.” Ans. 10. The Examiner makes this same statement for the “implement[ing]” step of claim 30 (Ans. 11) and the “facilitating” step of claims 30 and 39 (Ans. 12–14). The Examiner cited M.P.E.P. ¶ 2161 (Ninth Edition, Revision 08.2017, Last Revised January 2018) which has the following pertinent guidance:

When examining computer-implemented functional claims, examiners should determine whether the specification discloses the computer and the algorithm (e.g., the necessary steps and/or flowcharts) that perform the claimed function in sufficient detail such that one of ordinary skill in the art can reasonably conclude that the inventor possessed the claimed subject matter at the time of filing. It is not enough that one skilled in the art could write a program to achieve the claimed function because the specification must explain how the inventor intends to achieve the claimed function to satisfy the written description requirement. See, e.g., *Vasudevan Software, Inc. v. MicroStrategy, Inc.*, 782 F.3d 671, 681–683, 114 USPQ2d 1349, 1356, 1357 (Fed. Cir. 2015).

The claimed result of deactivating the software license on the first computing device is accomplished using a “deactivation message.” The claimed result of activating the software license on the second computing

device is accomplished using an “activation message.” How the recited function is achieved is therefore recited in the claim and described in the Specification (e.g., Spec. ¶¶ 6, 8). It is true that the Specification does not disclose the specific computer code which is “causing” the software to be deactivated and activated. However, the Specification describes how “to achieve the functionality” (*Vasudevan*, 782 F3d. at 683), namely by sending the messages to the first and second client computing devices. The Examiner did not establish that one of ordinary skill in the art would have reasonably concluded that the inventor did not possess the claimed subject matter because of the lack of a specific computer code to deactivate and activate the licenses residing on the devices. Specifically, Examiner did not establish that the specific computer code lines to cause the deactivation and activation on the computing devices is a necessary detail “to allow a person of ordinary skill in the art to understand what is claimed and to recognize that the inventor invented what is claimed.” *University of Rochester v. G.D. Searle & Co., Inc.*, 358 F.3d 916, 928 (Fed. Cir. 2004).

Claim 30 recites “one or more non-transitory computer-readable storage media comprising instructions that, when executed by the one or more processors, causes the one or more processors to implement a license activation server to perform operations.” The Examiner found this lacked a written description for the same reason as claim 21. Final Act. 21.

We do not agree. Claim 30, like claim 21, recites that the license activation is caused by a deactivation message. Therefore, for the same reason as claim 21, we find that the claim recites that the functionality is achieved using a “deactivation message,” which is sufficient to establish possession of the claimed limitation.

Claims 30 and 39 recite “facilitating” the transfer of the software license. The Examiner found this limitation lacks a written description for the same reason as claim 21. Final Act. 24.

As discussed above, the steps in the claim recite that the result is achieved using a “deactivation message”, “deactivation response”, and “activation message.” The Examiner did not establish that the specific computer code lines to cause the deactivation and activation on the computing devices is necessary detail “to allow a person of ordinary skill in the art to understand what is claimed and to recognize that the inventor invented what is claimed.” *Rochester*, 358 F.3d at 928.

It is the Examiner’s “initial burden [to] present[] evidence or reasons why persons skilled in the art would not recognize in the disclosure a description of the invention defined by the claims.” *In re Wertheim*, 541 F.2d 257, 263 (CCPA 1976). This burden was not met here. The written description rejection of claims 21, 24, 25, 28, 30, 33, 34, 36, 37, 39, and 41–50 is reversed.

INDEFINITENESS REJECTION

The Examiner found that the scope of claim 21 is unclear in the recitation of “deactivation” and “activation” because the method is implemented by a server, but the claim recites a first client computing device and a second client computing device. Ans. 17.

This rejection is reversed. The claim specifically states which functions are performed by the server and which functions are performed by the computing devices. Thus, the claim scope is clear and would be readily understood by one of ordinary skill in the art.

The Examiner stated that the scope of claim 21 is not clear because the claim “recites ‘causing’ which is representative of ‘state language’ and not to an action.” Ans. 18.

The claim scope is clear and the rejection is reversed. The claim recites that the messages “caus[e]” deactivation and activation of the software license on the computing device. There is no lack of clarity in this language; the skilled worker would readily understand that the messages result in the deactivation and activation of the software license.

Claim 28 recites “wherein the deactivation message includes a machine type for the first client computing device such that transfer of the software license is permitted if the machine type for either the first client computing device or the second client computing device matches the specified machine type.” The Examiner stated that the recitation of “such that” in claim 28 makes the claim scope unclear. Ans. 19.

We do not agree and reverse the rejection. The skilled worker would understand that the “deactivation message” only causes the software license to be deactivated *when* the machine types are the same and that the phrase “such that” conveys this function

Claim 30 recites “one or more processors.” The Examiner stated that “the scope of the claim is unclear as Appellant's claim recites, ‘first client device’ and ‘second client device;’ however, Appellant's claim is directed to ‘one or more processors.’” Ans. 20.

The “processors” are recited in the claim as “implement[ing] a license activation server to perform operations.” The processors perform the server functions recited in the claim (e.g., “determining that the identifier for the software license installed on the first client computing device is valid”) and

the client devices perform the client device functions recited in the claim (e.g., “receiving a request to transfer a software license from a first client computing device to a second client computing device”). Thus, the claim scope is clear and would be readily understood by one of ordinary skill in the art. The rejection is reversed.

CONCLUSION

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
21, 24, 25, 28, 30, 33, 34, 36, 37, 39, 41–50	101	Eligibility		21, 24, 25, 28, 30, 33, 34, 36, 37, 39, 41–50
21, 24, 25, 28, 30, 33, 34, 36, 37, 39, 41–50	112	Written description		21, 24, 25, 28, 30, 33, 34, 36, 37, 39, 41–50
21, 24, 25, 28, 30, 33, 34, 36, 37, 39, 41–50	112	Indefiniteness		21, 24, 25, 28, 30, 33, 34, 36, 37, 39, 41–50
Overall Outcome				21, 24, 25, 28, 30, 33, 34, 36, 37, 39, 41–50

REVERSED