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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte FRANK HARTUNG, UWE HORN, and
MARKUS KAMPMANN

Appeal 2016-008639
Application 11/718,585
Technology Center 3600

Before JOHN A. JEFFERY, BRUCE R. WINSOR, and
JUSTIN BUSCH, *Administrative Patent Judges*.

Opinion for the Board filed by BUSCH, *Administrative Patent Judge*.

Opinion dissenting-in-part filed by WINSOR, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellants¹ appeal from the Examiner's decision to reject claims 24–46, which constitute all the claims pending in this application. We have jurisdiction under 35 U.S.C. § 6(b). Claims 1–23 were cancelled.

We affirm.

¹ Appellants identify the real party in interest as Telefonaktiebolaget LM Ericsson. App. Br. 1.

CLAIMED SUBJECT MATTER

Appellants' claimed invention relates to a method of registering a device with a rights issuer system. Spec. 1. According to the Specification, "the invention can be practised (even) when the device is offline, inactive and/or switched-off." *Id.* at 4. Claim 24 is representative and reproduced below:

24. A method of registering a device with a rights issuer system in a digital rights management context, the method comprising the steps of:

- generating registration information, comprising
 - acquiring rights issuer information;
 - receiving device information, the device being in at least one of an offline state, an inactive state and a switched-off state;
 - generating the registration information from the rights issuer information and the device information, wherein the registration information includes information required to use protected content; and

- transferring the registration information towards the device while the device is in the at least one of an offline state, an inactive state and a switched-off state.

REJECTIONS

Claims 24–46 stand rejected under 35 U.S.C. § 101, as being directed to non-statutory subject matter. *See* Final Act. 7–10.

Claims 24–35, 39–43, and 46 stand rejected under 35 U.S.C. § 103 as being unpatentable over Stefik (US 2003/0023561 A1; Jan. 30, 2003) and Watanabe (US 2001/0042125 A1; Nov. 15, 2001). *See* Final Act. 12–16.

Claims 36–38, 44, and 45 stand rejected under 35 U.S.C. § 103 as being unpatentable over Stefik, Watanabe, and Official Notice. *See* Final Act. 17.

THE § 101 REJECTION

The Examiner concludes the independent claims are directed to an abstract idea, namely a method of organizing human activity and an idea of itself. Ans. 6–7. The Examiner adds the remaining elements do not include significantly more than the abstract idea because the generically-recited computer elements are well-understood, routine, and conventional, and therefore do not add a meaningful limitation to the abstract idea. *Id.* at 8.

Appellants argue the claims are not directed to an abstract idea, but even assuming they are directed to an abstract idea, the claims recite significantly more than an abstract idea. App. Br. 6–9; Reply Br. 2–4.

ISSUE

Under § 101, has the Examiner erred in rejecting claim 24 as directed to ineligible subject matter? This issue turns on whether claim 24 is directed to an abstract idea under the analysis set forth in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (2012) and *Alice Corp. Party Ltd. v. CLS Bank International*, 134 S. Ct. 2347 (2014).

ANALYSIS

To be eligible under 35 U.S.C. § 101, the subject matter of an invention must be a “new and useful process, machine, manufacture, or composition of matter, or [a] new and useful improvement thereof.” 35 U.S.C. § 101. We initially note that claims 24–42 are directed to a “method,” i.e., a process, and claims 43–46 are directed to a “system”

implemented in a “device” and an “apparatus,” i.e., a machine. Thus, each of the claims is directed to one of the four statutory categories of patentable subject matter.

The Supreme Court has held there are implicit exceptions to the categories of patentable subject matter identified in § 101, including laws of nature, natural phenomena, and abstract ideas. *Alice*, 134 S. Ct. at 2355. Further, the Court has “set forth a framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Id.* (citing *Mayo*, 566 U.S. 66). The evaluation follows the two-part analysis set forth in *Mayo*: 1) determine whether the claim is directed to an abstract idea; and 2) if the claim is directed to an abstract idea, determine whether any element, or combination of elements, in the claim is sufficient to ensure that the claim amounts to significantly more than the abstract idea itself. *See Alice*, 134 S. Ct. at 2355.

ALICE STEP ONE

Following the Court’s guidance, we turn to the first step of the *Mayo/Alice* analysis to determine if the claim is directed to one of the judicial exceptions, i.e., an abstract idea. According to *Alice* step one, “[w]e must first determine whether the claims at issue are directed to a patent-ineligible concept,” such as an abstract idea. *Alice*, 134 S. Ct. at 2355 (emphasis added). “[T]he ‘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 excluded subject matter.’” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016) (quoting *Internet*

Patents Corp. v. Active Network, Inc., 790 F.3d 1343, 1346 (Fed. Cir. 2015)). We must ask whether the “focus of the claimed advance over the prior art” is directed to patent-ineligible subject matter. *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016).

The Specification provides evidence as to what the invention is directed to. In this case, the Specification discloses that a goal of the claimed invention is to provide “a registration technique that does not necessarily require an interactive communication in order to provide the device with registration information required to utilize protected content and that does not burden the device with excessive [digital rights management (DRM)] processing operations.” Spec. 3. According to the Specification, Appellants’ invention allegedly achieves the goal by allowing a rights issuer server to generate registration information for a device by receiving device information from a DRM capability server. *Id.* at 12. “[T]he registration information is [then] transferred towards the device while the device is at least one of offline, inactive and switched-off.” *Id.* at 4.

Appellants argue the claims as a group. *See* App. Br. 5–9; Reply Br. 2–4. We, therefore, select independent claim 24 as the representative claim for this group, and the remaining claims 25–46 stand or fall with claim 24. 37 C.F.R. § 41.37(c)(1)(iv) (2016). Although particular details recited in claim 24 limit the process to registration with a rights issuer in a DRM system, claim 24, as a whole, is directed to device registration—an abstract idea. Here, even claim 24’s preamble, directed to “a method of registering a device with a rights issuer system in a [DRM] context,” further supports that claim 24’s character as a whole is directed to device registration.

Device registration is a basic a concept similar to other concepts found to be abstract ideas. In particular, the Federal Circuit determined that claims directed to budgeting were abstract. *Intellectual Ventures I LLC v. Capital One Bank*, 792 F.3d 1363, 1367 (Fed. Cir. 2015). The claims at issue in *Intellectual Ventures* included storing a user “profile keyed to a user identity” containing categories with limits for tracking transactions and communicating a transaction summary. *Id.* The Court determined that the claims were directed to an abstract idea of tracking financial transactions, summarized as “budgeting.” *Id.* The Court explained that the claims were thus similar to other methods of organizing human behavior that the Supreme Court had previously found to be abstract. *Id.* at 1367–68. Appellants’ claims are similar in that they recite additional limitations regarding details of the environment in which the device is registered and communicating the registration information, which do not meaningfully differentiate Appellants’ claims from other methods of organizing human activity determined to be abstract.

Furthermore, the concept of device registration merely involves collecting, storing, and transmitting information related to a particular device and the service or entity with which the device is being registered. The Federal Circuit has determined claims directed merely to the manipulating data (including analysis, organization, and classification of such data) to be abstract as fundamental concepts and methods of organizing human activity. *See, e.g., In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 613 (Fed. Cir. 2016) (determining claims directed to “classifying and storing digital images in an organized manner” were directed to an abstract idea); *Elec.*

Power Grp., LLC v. Alstom S.A., 830 F.3d 1350, 1343 (Fed. Cir. 2016) (holding claims focused on collecting and analyzing information, and presenting the results thereof to be an abstract idea); *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat’l Ass’n*, 776 F.3d 1343, 1347 (Fed. Cir. 2014) (determining collecting, recognizing, and storing data is an abstract idea).

As for the more specific application of the abstract idea discussed above, contrary to Appellants’ argument, App. Br. 6; Reply Br. 2–3, this is insufficient to change the abstract character of the claimed subject matter as a whole. *Cf. CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1371 (Fed. Cir. 2011) (“The Court [in *Parker v. Flook*, 437 U.S. 584 (1978)] rejected the notion that the recitation of a practical application for the calculation could alone make the invention patentable.”); *see also TLI*, 823 F.3d at 613.

For the reasons discussed above, claim 24 is directed to device registration, which is an abstract idea under the first step of the analysis. Appellants’ contention that, without additional explanation, merely categorizing the claims as an idea of itself or methods of organization human activity “is insufficient to satisfy the first enquiry of § 101 analysis” is unavailing. Reply Br. 2. The Examiner’s rejection provided sufficient detail to permit Appellants to respond meaningfully. *See In re Jung*, 637 F.3d 1356, 1362 (Fed. Cir. 2011).

ALICE STEP TWO

Turning to the second step of the *Alice* analysis, because we determine that claim 24 is directed to an abstract idea, we “consider the elements of

each claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 566 U.S. at 78). The Supreme Court describes the second step of this analysis as “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.” *Id.* (brackets in original) (internal quotations omitted).

At the outset, we note the “machine-or-transformation” test, although not the only test, can nevertheless provide a “‘useful clue’ in the second step of the *Alice* framework.” *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 716 (Fed. Cir. 2014) (quoting *Bilski v. Kappos*, 561 U.S. 593, 594 (2010)). Under the “machine-or-transformation” test, a claimed process is patent-eligible under § 101 if: (1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing. *In re Bilski*, 545 F.3d 943, 954 (Fed. Cir. 2008), *aff’d sub nom. Bilski*, 561 U.S. at 593. According to the Federal Circuit in *In re Bilski*, the transformation (1) must involve transforming an underlying article from one state to a different state or thing, and (2) must be central to the purpose of Appellants’ claimed process. *Id.* While an underlying article can be intangible, such as electrical signals, and transformation can include data transformation, data must represent a physical object or an article. *In re Bilski*, 545 F.3d at 962–63 (citing *In re Abele*, 684 F.2d 902, 908–09 (CCPA 1982)); see *Arrhythmia Research Tech., Inc. v. Corazoxic Corp.*, 958 F.2d 1053, 1059 (Fed. Cir. 1992). In this case, we find no transformation of “a particular article into a

different state or thing” occurring in claim 24. *See Bilski*, 545 F.3d at 959. That is, the method recited in claim 24 merely transfers generated registration information *towards* a device in an offline, inactive, or switched-off state.

We further find unavailing Appellants’ contention that by transferring registration information towards a device in an offline, inactive, or switched-off state, claim 24 is directed to a specific application within a DRM context that improves (1) basic functioning of a rights issuer system, and (2) the ability to interact with a user. App. Br. 8 (citing Spec. 3); Reply Br. 3. The fact that the claim’s preamble recites that the method of device registration is “with a rights issuer system in a [DRM] context” merely recites a field-of-use limitation that does not render the recited abstract idea patent-eligible. *See Bilski*, 561 U.S. at 610–11 (noting that *Parker v. Flook*, 437 U.S. 584 (1978) “stands for the proposition that the prohibition against patenting abstract ideas cannot be circumvented by attempting to limit the use of the [idea] to particular technological environment”) (internal quotation marks omitted).

Thus, “the claims at issue amount to ‘nothing significantly more’ than an instruction to apply the abstract idea . . . using some unspecified, generic computer.” *Alice*, 134 S. Ct. at 2360 (citing *Mayo*, 566 U.S. at 71). Accordingly, we are not persuaded that the Examiner erred in rejecting claim 24, and claims 25–46, not argued separately with particularity.

THE OBVIOUSNESS REJECTION OVER STEFIK AND WATANABE

The Examiner finds Stefik discloses many recited elements of independent claim 24 including, among other things, generating registration

information from acquired rights issuer information and received device information. Final Act. 12. Although the Examiner acknowledges that Stefik’s registration information is not transferred towards the device while the device is in at least one of an offline state, an inactive state, and a switched-off state, the Examiner cites Watanabe as teaching this feature in concluding that the claim would have been obvious. *Id.* at 12–13.

Appellants argue that Stefik and Watanabe do not teach or suggest, among other things, transferring registration information towards a device while the device is in at least one of an offline state, an inactive state, and a switched-off state. App. Br. 12–13.

ISSUE

Under § 103, has the Examiner erred in rejecting claim 24 by finding that Stefik and Watanabe collectively would have taught or suggested transferring registration information towards a device while a device is in at least one of an offline state, an inactive state and a switched-off state?

ANALYSIS

We begin by clarifying the Examiner’s mapping. The Examiner appears to map the recited “device information” to a player ID and a printer ID included in Stefik’s grammar element 1504 of Figure 15. *See* Final Act. 4, 12; Ans. 9; Stefik ¶¶ 123–125. We see no error in this finding, particularly because Stefik provides examples that include identifying a printer or player using, respectively, a particular player ID or printer ID. *See generally* Stefik ¶¶ 191–229. The same grammar element 1504 further includes the right to play and print the digital work. *See id.* ¶¶ 123–125; Fig. 15. Because Stefik’s creator of the digital work determines the

appropriate usage rights for the digital work, *id.* ¶ 46, Stefik at least suggests grammar element 1504's right to play and print are "rights issuer information," as claimed. Nor do we see error in the Examiner's finding that Figures 4B, 15, and 17 of Stefik disclose generating registration information from the device information and the rights issuer information, as claimed, particularly since the usage rights grammar of Figure 15 includes the grammar element 1504 as discussed above. Final Act. 12.

Claim 24 also recites that the registration information is transferred towards a device while the device is in at least one of an offline state, an inactive state, and a switched-off state. The Examiner finds paragraphs 61–63, 78, 80, and 85 of Watanabe teach or suggest this key aspect. Final Act. 13; Ans. 10 (merely stating disagreement with Appellants' argument, and reiterating the rejection from the Final Action).

On this record, the Examiner's finding is problematic. Watanabe is directed to registering a terminal apparatus's identification information for receiving service information. Watanabe, Abstract. If Watanabe's terminal apparatus and information providing server are not online-connected, then a user registers desired conditions for service information in an integrated circuit (IC) card using the terminal apparatus. *Id.* ¶¶ 61, 80, 89; Figs. 7–8. Watanabe's offline processing includes the terminal apparatus transmitting the conditions to the IC card, storing the conditions on the IC card, and setting an offline processing flag in the IC card. *Id.* ¶¶ 85, 90.

We agree with Appellants that Watanabe's offline processing "has not been shown to disclose or suggest 'transferring the registration information towards **the device** while the **device** is in the at least one of an offline state,

an inactive state and a switched-off state,’ as required by independent claim 24.” App. Br. 12–13. Watanabe’s conditions for service information are transferred from a terminal apparatus, such as a personal computer, to an IC card. But an IC card is not a device capable of being in an offline, inactive, or switched-off state as required by the claim, let alone a device that meets the remainder of the limitations as recited in the claims. Although Watanabe’s conditions for service information, in a sense, may be transferred from a terminal apparatus *towards* the information-providing server because the terminal apparatus transfers the information to an IC card, which then transfers the information to the information providing server when the terminal apparatus is again online-connected, Watanabe’s information-providing server is not an offline, inactive, or switched-off device.

Therefore, for the reasons noted above, we are persuaded the Examiner erred in rejecting (1) independent claim 24; (2) independent claim 43 which recites commensurate limitations; and (3) dependent claims 25–35, 39–42, and 46, which ultimately depend from one of claims 24 and 43. Because this issue is dispositive regarding our reversing the rejection of these claims, we need not address Appellants’ other arguments.

THE OTHER OBVIOUSNESS REJECTION

We do not sustain the Examiner’s obviousness rejection of claims 36–38, 44, and 45. Final Act. 17. Claims 36–38, 44, and 45 depend, directly or indirectly, from one of independent claims 24 and 43—the rejection of which we find problematic, as noted previously. Because the Examiner has

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not shown Official Notice cures those deficiencies, we will not sustain the Examiner's rejection of claims 36–38, 44, and 45.

CONCLUSION

The Examiner did not err in rejecting claims 24–46 under § 101.

The Examiner erred in rejecting claims 24–46 under § 103.

DECISION

For the above reasons, we affirm the Examiner's decision to reject claims 24–46.

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. § 41.50(f).

AFFIRMED

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte FRANK HARTUNG, UWE HORN, and
MARKUS KAMPMANN

Appeal 2016-008639
Application 11/718,585
Technology Center 3600

Before JOHN A. JEFFERY, BRUCE R. WINSOR, and
JUSTIN BUSCH, *Administrative Patent Judges*.

WINSOR, *Administrative Patent Judge*, dissenting-in-part.

I respectfully dissent-in-part from the Majority's opinion. While I concur with the Majority's reasoning and decision affirming the rejections under 35 U.S.C. § 103, I would have reversed the rejection under 35 U.S.C. § 101. Like the Majority, I discuss the § 101 by reference to claim 24.

I disagree with the Majority's patent eligibility analysis because I would hold that claim 24, when considered as a whole, in light of Appellants' Specification, is not directed to an abstract idea, but is directed to an improvement to a particular branch of computer technology, i.e., digital rights management (DRM) technology. Claim 24 recites the following:

24. A method of registering a device with a rights issuer system in a digital rights management context, the method comprising the steps of:

- generating registration information, comprising
 - acquiring rights issuer information;
 - receiving device information, the device being in at least one of an offline state, an inactive state and a switched-off state;
 - generating the registration information from the rights issuer information and the device information, wherein the registration information includes information required to use protected content; and
- transferring the registration information towards the device while the device is in the at least one of an offline state, an inactive state and a switched-off state.

I agree with the Majority that each of the claims at issue is directed to one of the four statutory categories of patentable subject matter set forth in 35 U.S.C. § 101. I do not, however, agree that claim 24 falls within the abstract idea implicit exception to § 101 patentability. *Cf. Alice Corp. Party Ltd. v. CLS Bank International*, 134 S. Ct. 2347, 2355 (2014). More particularly, I disagree with the Majority’s analysis under the first step of the *Alice* two-step framework. *See id.*

In applying the first step of the *Alice* analysis “[w]e must first determine whether the claims at issue are directed to a patent-ineligible concept,” such as an abstract idea. *Alice*, 134 S. Ct. at 2355 (emphasis added). “[T]he ‘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 excluded subject matter.’” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016) (quoting *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015)).

The Specification discloses that a goal of the claimed invention is to provide “a registration technique that does not necessarily require an interactive communication in order to provide the device with registration information *required to utilize protected content* and that *does not burden the device with excessive [digital rights management (DRM)] processing operations.*” Spec. 3 (emphases added). The invention achieves this goal by allowing a rights issuer server to generate registration information for a device by receiving device information from a DRM capability server. *Id.* at 12. “The registration information . . . includes information *required by the device to use protected content.*” *Id.* at 8 (emphasis added). “[T]he registration information is [then] *transferred towards the device while the device is at least one of offline, inactive and switched-off.*” *Id.* at 4 (emphasis added).

The *Enfish* court explained that “[t]he Supreme Court has suggested that claims ‘purport[ing] to improve the functioning of the computer itself,’ or ‘improv[ing] an existing technological process’ might not succumb to the abstract idea exception.” *Enfish*, 822 F.3d at 1335 (citing *Alice*, 134 S.Ct. at 2358–59). Claim 24 is directed to an improved method of allowing a device to use (i.e., by DRM applications) digital content that achieves benefits (reduced processing burden) particularly related to computer technology. Like the claims for a self-referential database table at issue in *Enfish*, claim 24 is directed to “an improvement [in] computer functionality itself, not [to] an economic or other [process] for which the computer is used in its ordinary capacity” as a tool. *Enfish*, 822 F.3d at 1336.

This is in contrast to the claims at issue in *Intellectual Ventures I LLC v. Capital One Bank*, 792 F.3d 1363, 1367 (Fed. Cir. 2015), where the computer was used as a mere tool for tracking financial transactions. Furthermore, an improvement in DRM computer technology, allowing a device to use protected content, is more than the mere manipulation of data found to be abstract in *In re TLI Commcations LLC Patent Litigation*, 823 F.3d 607, 613 (Fed. Cir. 2016) (determining claims directed to “classifying and storing digital images in an organized manner” were directed to an abstract idea); *Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350, 1343 (Fed. Cir. 2016) (holding claims focused on collecting and analyzing information, and presenting the results thereof to be an abstract idea); and *Content Extraction and Transmission LLC v. Wells Fargo Bank, National Association*, 776 F.3d 1343, 1347 (Fed. Cir. 2014) (holding that determining collecting, recognizing, and storing data is an abstract idea). In short, I agree with Appellants that claim 24 is directed to a specific improvement in DRM computer technology and is, therefore, not directed to an abstract idea. *See* Reply Br. 2–3.

Because I would hold that claim 24 is not directed to a patent-ineligible concept under the first step of the *Alice* analysis, I would not reach the second step of the *Alice* analysis. *Enfish*, 822 F.3d at 1339 (citing *Alice*, 134 S. Ct. at 2355).

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For these reasons I respectfully dissent from the Majority's patent eligibility analysis.