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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* CHRISTOPHER NESSINGER  
and CHARLES F. SCHNEIDER

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Appeal 2017-008388<sup>1</sup>  
Application 11/345,565  
Technology Center 3600

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Before JUSTIN BUSCH, JENNIFER L. MCKEOWN,  
and CARL L. SILVERMAN, *Administrative Patent Judges*.

MCKEOWN, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's Final decision to reject claims 1–12, 14, 16–20, 22, and 23. Claims 13, 15, and 21 are cancelled

We REVERSE.

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<sup>1</sup> According to Appellant, the real party in interest is Cemer Innovation, Inc. App. Br. 3.

## STATEMENT OF THE CASE

Appellant's disclosed and claimed invention is directed to

An order management system that employs profile locking is provided for managing clinical orders in patient profiles. The system allows users to initiate lockable order actions (e.g., order actions requiring a profile lock for conflict checking) in a profile locked by another user. When a user attempts to initiate a lockable order action, the system provides a notification to the user indicating that the patient profile is locked by another user. The user may elect to continue initiating the lockable order action. When the profile becomes available, the system provides a notification to the user, who may then obtain the profile lock and process the lockable order action, including having the system perform conflict checking. The system may also provide for the initiation of an instant messaging session between the user attempting to enter a lockable order action in a locked profile and another user who has the profile lock.

Abstract.

Claim 1 below is illustrative of the claimed invention and reads as follows:

1. One or more computer-storage media storing computer-usable instructions that when used by a computing device, cause the computing device to perform a method in a clinical computing environment for processing a lockable order action for a patient profile, the method comprising:

identifying that a patient profile is locked by a current user;

receiving a command from a subsequent user to initiate an order action for the patient profile locked by the current user;

identifying that the order action is a lockable order action because the order action requires processing a conflict check, wherein a user that requests said processing is required to possess a lock to a patient profile to which the lockable order action corresponds in order to process the conflict check;

based on identifying that the order action is a lockable order action that requires a conflict check, providing access to the patient profile for the subsequent user to enter details of the lockable order action, wherein the access is provided to the subsequent user while the patient profile is locked by the current user and without processing the conflict check because the patient profile is locked by the current user;

processing one or more permissible order actions entered by the subsequent user while the patient profile is locked by the current user, wherein processing the one or more permissible order actions does not require a conflict check and is performed without processing the conflict check for the lockable order action; determining that the patient profile is available such that the patient profile is not locked by the current user;

locking the patient profile to the subsequent user;  
and

in response to locking the patient profile to the subsequent user,

processing the lockable order action by performing the conflict check relative to

other order actions while the patient profile is locked to the subsequent user..

#### THE REJECTIONS

The Examiner rejected claims 1–12, 14, 16–20, 22, and 23 under 35 U.S.C. § 101 as directed to patent-ineligible subject matter. Final Act. 2–3.

The Examiner rejected claims 1–12 and 14 under 35 U.S.C. § 103(a) as unpatentable over Dvorak et al. (US 2002/0120472 A1; pub. Aug. 29, 2002, “Dvorak”), Kumaresan et al. (US 7,831,642 B2; iss. Nov. 9, 2010, “Kumaresan”), Tajaliawal et al. (US 2007/0033073 A1; pub. Feb. 8, 2007,

“Tajaliawal”), and Sun et al. (US 2005/0256818 A1; pub. Nov. 17, 2005, “Sun”).<sup>2</sup> Final Act. 4–12.

The Examiner rejected claims 16–20, 22, and 23 under 35 U.S.C. § 103(a) as unpatentable over Dvorak, Kumaresan, Tajaliawal, Sun, and Kim (US 2001/0018658 A1; pub. Aug. 30, 2001, “Kim”). Final Act. 12–19.

## ANALYSIS

### THE REJECTION UNDER 35 U.S.C. § 101

#### *Claims 1–12, 14, 16–20, 22, and 23*

Based on the record before us, we are persuaded that the Examiner erred in rejecting claims 1–12, 14, 16–20, 22, and 23 as directed to patent ineligible subject matter.

The Supreme Court, in *Alice*, reiterated the two-step framework previously set forth in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66, 82 (2012), “for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S.Ct. 2347, 2355 (2014). The first step in that analysis is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts” (*id.*), for example, to an abstract idea. If the claims are directed to one of the patent-ineligible concepts, the inquiry proceeds to the second step where the elements of the claims are considered

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<sup>2</sup> We note that the Examiner in the Answer at one instance lists “Fuller” as part of the obviousness rejection. No substantive discussion of Fuller is provided either in the Final Action or the Answer. *See* Ans. 4–8; Final Act. 3–8. As such, we understand the inclusion of Fuller to be in error.

“individually and ‘as an ordered combination’” to determine whether there are additional elements that “‘transform the nature of the claim’ into a patent-eligible application.” *Alice*, 134 S.Ct. at 2355 (quoting *Mayo*, 132 S.Ct. at 1297).

With respect to step one of the eligibility analysis, the Examiner finds that the claims are “directed to the abstract idea of [] comparing new and stored information and using rules to identify options” (Final Act. 2) or “safeguarding order profiles, etc.” Ans. 8 (quotations omitted). The Examiner explains that this concept is embodied in “the steps of ‘identifying that a patient profile is locked, receiving a command from a subsequent user to initiate an order action for the patient profile, providing access to the patient profile for the subsequent user to enter details of the lockable order action, etc.’” Ans. 9 (quotations omitted). According to the Examiner, the alleged abstract idea is similar to the concept of collecting information, analyzing the collected information, and displaying certain results, which was found to be ineligible in *Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016). Ans. 9.

Appellants argue that the claims are not directed to patent ineligible subject matter. App. Br. 9–13. Appellants explain that

considering the express features of claim 1 in view of the Specification indicates that claim 1 is directed to a technological process: within a multiple user computerized physician order entry (CPOE) or electronic order management system that allows concurrent order entry by the multiple users, the media facilitates the selective processing of order actions based on whether each particular order action for a profile requires a conflict check against other orders for the same profile. *Id.* at ¶ [0005].

App. Br. 10. Thus, according to Appellants, claim 1 as a whole is directed to a technological process and is not directed to patent ineligible subject matter. App. Br. 9–12.

When considering whether the claims are directed to a patent-ineligible concept, “[t]he ‘directed to’ inquiry. . . cannot simply ask whether the claims involve a patent-ineligible concept, because essentially every routinely patent-eligible claim involving physical products and actions involves a law of nature and/or natural phenomenon.” *See Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335-36 (Fed. Cir. 2016)(citing *Mayo*, 566 U.S. at 70-71). Rather, “the ‘directed to’ inquiry applies a stage-one filter to claims” considered in their entirety, in light of the Specification, to ascertain whether the claims’ character as a whole is directed to excluded subject matter. *Id.* (citing *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015)).

Based on the record before us, we disagree with the Examiner's determination that the claims are directed to the abstract idea of comparing new and stored information and using rules to identify options and that the claims are similar to *Electric Power Group* in that they are directed to collecting, analyzing, and displaying data. While receiving an order action and identifying whether it is a lockable order could arguably be considered collecting and analyzing data, the claims do not then merely display the results. Instead, the claims require particular processing steps for the order actions depending on whether it is permissible or lockable and whether the profile is locked to the user as well as providing access to a locked file to enter the lockable order. The claims also require performing locking of the patient profile to the subsequent user when it is determined that the patient

profile is available, which is also distinct from merely displaying data. As such, rather than merely comparing new and stored information or collecting and displaying data, the claims on appeal are directed to use of data to direct subsequent operations.

In that way, Appellants' claims are like those before the Court in *Vanda Pharmaceuticals Inc. v. West-Ward Pharmaceuticals International Ltd.*, 887 F.3d 1117 (Fed. Cir. 2018). In *Vanda*, the Court distinguished claims involving using acquired patient information to modify a drug administration regimen from the claims at issue in *Mayo*, which involved acquiring patient information but did not require any particular use of the acquired information. *Vanda*, 887 F.3d at 1113. The Court found the claims in *Vanda* were not directed to an abstract idea, under *Alice* step one, because they involved using the acquired data to direct a treatment program. Similarly, in this case, the claims involve use of acquired data to process action orders. As such, these claims are not directed to an abstract idea.

With respect to step two of the eligibility test, the Examiner determines that the claims “do not include additional elements that are sufficient to amount to significantly more than the judicial exception because the additional elements when considered both individually and as an ordered combination do not amount to significantly more than the abstract idea.” Ans. 10; *see also* Final Act. 3. The Examiner particularly points to paragraph 26 of the Specification to support that only a general purpose computing system is employed and these generic computer components only perform functions “that are well-understood, routine, and conventional activities previously known to the industry.” Final Act. 3. The Examiner then concludes that “[the recited] ‘general purpose computing system

environments’ does/do not add meaningful limitations to the idea of beyond generally linking the system to a particular technological environment, that is, implementation via computers.” *Id.*; *see also* Ans. 10.

Appellants argue that the claims include an inventive concept that transforms the nature of the claims into patent eligible subject matter. App. Br. 14–17. For example, Appellants assert that “exemplary claim 1 recites features that, when considered alone and in combination, are necessarily rooted in computer technology in order to overcome problems specifically arising in the realm of computer technology.” App. Br. 14. Appellants also identify the problems with the prior art systems (*id.* at 14–15) and explain that the claimed system is “designed to solve a technological problem in industry practice.” App. Br. 16. Specifically, the claimed system

enable[s] multiple-user concurrent access to profiles locked by another user, enable[s] multiple-user concurrent entry of lockable order actions and permissible order actions to profiles locked by another user, selectively process permissible order actions for profiles even when locked by another user, hold lockable order actions that are entered but not processed when a profile is locked by another user, and selectively process lockable order actions when a profile lock is obtained by a user for performance of conflict checks for the lockable order action. *Id.* at ¶¶ [0035]–[0040].

App. Br. 15; *see also* App. Br. 15–16 (describing additional advantages to the claimed system and explaining how “the [claimed] features [] directly overcome the technological problems present in prior [computerized physician order entry (“CPOE”)] systems.”).

We agree with Appellants. As Appellants explain, the claimed combination of limitations includes an inventive concept that addresses

problems arising in the prior art CPOE systems and is an improvement to prior art CPOE systems. App. Br. 14–16. Namely, the ordered combination of the claims allows concurrent order entry by the multiple users while also facilitating the selective processing of order actions based on whether each particular order action for a profile requires a conflict check against other orders for the same profile. *Id.* The particular arrangement claimed, therefore, “improve[s] an existing technological process.” *Alice*, 134 S.Ct. at 2358. See *BASCOM Global Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1349-50 (Fed. Cir. 2016) (finding the claims patent eligible because “the patent describes how its particular arrangement of elements is a technical improvement over prior art ways of filtering [] content.”); see also *Trading Techs. Int’l, Inc. v. CQG, Inc.*, 675 F.Appx. 1001 (Fed. Cir. 2017) (unpublished) (finding of patent eligibility with respect to step two of *Alice* when the claims provided “an inventive concept that improves the manner traders can place trades using the claimed electronic trading system.”). As such, we are persuaded that the Examiner erred in rejecting the claims as directed to patent ineligible subject matter.

Accordingly, we reverse the Examiner’s rejection of claims 1–12, 14, 16–20, 22, and 23 as directed to patent ineligible subject matter.

THE REJECTION UNDER 35 U.S.C. § 103 BASED ON DVORAK, KUMARESAN,  
TAJALIAWAL, AND SUN  
*Claims 1–12 and 14*

Based on the record before us, we are persuaded that the Examiner erred in rejecting claims 1–12 and 14 as unpatentable over Dvorak, Kumaresan, Tajaliawal, and Sun.

Appellants argue the cited combination of references fails to teach or suggest (1) identifying that the order action is a lockable order action because the order action requires processing a conflict check, (2) based on identifying that an order action is a lockable order action that requires a conflict check providing access to the patient profile for the subsequent user to enter details of the lockable order action without processing the conflict check, (3) processing permissible orders entered by a subsequent user without processing the conflict check of the lockable orders entered by the subsequent user when the patient profile is locked to a different (current) user, and (4) processing the lockable order by performing the conflict check in response to locking the patient file to the subsequent user. App. Br. 18–19. According to Appellants,

the Examiner relies on a deficient combination of a file lock manager controlling write operations performed on one file (discussed in Dvorak), a file lock with increased granularity (discussed in Kumaresan), a review of prescription drugs prescribed to a patient that occurs when a patient is admitted or discharged from a hospital service (discussed in Tajaliawal), and a workflow model generator (discussed in Sun). Final Office Action dated 06/06/2016 at pp. 4–8.

App. Br. 20.

We are persuaded of error in the Examiner’s rejection. Dvorak teaches a lock manager to control write access to a file and Kumaresan teaches partial locking to allow multiple nodes to write to different parts of a file. Final Act. 4–5. While these references combined may generally teach locking or granting access to a file or part of a file for a write operation, neither reference teaches or suggests identifying the write operation as a “lockable” order. In other words, the Examiner does not identify or explain

how either reference teaches or suggest considering the content of the write operation to determine whether the file must be locked to perform the requested operation. As Appellants explain, the claims explicitly recite that an order action is determined to be a lockable order action (requiring a patient profile to be locked for processing) based on the content of the order itself, i.e. the requested order action requires a conflict check against other existing order actions for that patient profile. App. Br. 18–19.

Contrary to the Examiner’s findings, this identifying an action order as a lockable order limitation is similarly absent from Tajaliawal. Namely, Tajaliawal describes a system that will automatically reconcile (perform a conflict check) of active medications when a patient moves to a different location, whether changing facilities, changing level of care or service, or being discharged from a hospital. App. Br. 22; Tajaliawal ¶ 11. Tajaliawal generally teaches performing a conflict check, however, the Examiner does not identify or explain how Tajaliawal teaches considering an action order (or write operation) to determine if a conflict check is required. Nor does the Examiner tie Tajaliawal’s conflict checks with Dvorak’s and Kumaresan’s write operations. As such, we agree with Appellants that the cited combination of prior art references fails to teach or suggest identifying that the order action is a lockable order action because the order action requires processing a conflict check.

We also agree with Appellants that the Examiner erred in relying on Sun as teaching the processing permissible orders limitation and the processing the lockable order limitation. *See* App. Br. 22. As Appellants discuss, “Sun is directed to simulating and modeling workflows for customer-dependent businesses. *See, e.g., Sun* at ¶ [0011].” App. Br. 22.

Sun may disclose processing orders according to particular customer requirements, such as in a particular order, but it is unclear, based on the record before us, how these general disclosures of workflow processes relate in any way to the write operations of Dvorak and Kumaresan or the conflict checks of Tajaliawal. Notably, the claims expressly require processing permissible orders (orders where no conflict check is required) without processing the conflict check of the lockable order entered by the subsequent user when the patient profile is locked to a different (current) user and processing the lockable order by performing the conflict check in response to locking the patient file to the subsequent user. As such, we determine that the Examiner erred in finding that the cited combination of prior art references teaches these disputed limitations.

Claim 14 recites similar limitations to claim 1, including, for example, (1) identify that the order action is a lockable order action because the order action requires processing a conflict check, (2) receive a third command from the subsequent user to process one or more permissible order actions not requiring a conflict check and not process the conflict check for the initiated lockable order action because the patient profile is locked to the current user, and (3) in response to locking the patient profile to the subsequent user, process the initiated lockable order action and perform the conflict check of the initiated. Therefore, for the reasons discussed above with respect to claim 1, we also determine that the Examiner erred in finding the cited combination of prior art references teaches these disputed limitations.

Accordingly, based on the record before us, we reverse the Examiner's rejection of claims 1–12 and 14, as unpatentable over Dvorak, Kumaresan, Tajaliawal, and Sun.

THE REJECTION UNDER 35 U.S.C. § 103 BASED ON DVORAK, KUMARESAN,  
TAJALIAWAL, SUN, AND KIM  
*Claims 16–20, 22, and 23*

Claim 16 recites similar limitations to claim 1, including for example, (1) identifying that the order action is a lockable order action because the order action requires processing a conflict check, (2) processing one or more permissible order actions not requiring a conflict check and entered by the subsequent user without processing the conflict check for the initiated lockable order action, and (3) in response to locking the patient profile to the subsequent user, processing the lockable order action by performing the conflict check relative to other order actions. Therefore, for the reasons discussed above with respect to claim 1, we determine that the Examiner erred in finding the cited combination of prior art references teaches these disputed limitations.

Accordingly, we reverse the Examiner's rejection of claims 16–20, 22, and 23 as unpatentable over Dvorak, Kumaresan, Tajaliawal, Sun, and Kim.

Appeal 2017-008388  
Application 11/345,565

DECISION

We reverse the Examiner's decision to reject claims 1–12, 14, 16–20, 22, and 23.

REVERSED