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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JAN DeHAAN

Appeal 2017-009989[1]
Application 12/016,278[2]
Technology Center 3600

Before HUBERT C. LORIN, JOSEPH A. FISCHETTI, and TARA L. HUTCHINGS, *Administrative Patent Judges*.

HUTCHINGS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant appeals under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1–5, 7–18, and 21. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

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[1] Our decision references Appellant's Appeal Brief ("App. Br.," filed Jan. 23, 2017) and Reply Brief ("Reply Br.," filed July 17, 2017), and the Examiner's Answer ("Ans.," mailed May 16, 2017) and Final Office Action ("Final Act.," mailed July 21, 2016).

[2] Appellant identifies Cerner Innovation, Inc. as the real parties in interest. App. Br. 3.

CLAIMED INVENTION

Claims 1 and 21 are the independent claims one appeal. Claim 1, reproduced below with bracketed notations added, is illustrative of the claimed subject matter:

> 1. A clinical reporting and ordering system including at least one processing device for enabling user selection of related parameters identifying an order for providing an item or service, comprising:
>
> [(a)] a repository including information identifying candidate items for order for treatment to be administered to a particular patient comprising corresponding order related parameters, an individual item or service for order comprising a plurality of order related parameters;
>
> [(b)] one or more computer storage media storing computer usable instructions that, when used by the one or more processors, cause the one or more processors to:
>
> [(c)] display, in response to user entry of order associated data, an image via a user interface including at least an initial candidate order, wherein the order includes a plurality of order related parameters, and order related parameter identifiers;
>
> [(d)] generate, based on the candidate order, a plurality of substantially adjacent concurrently displayed columnar image areas including a first columnar image area, the plurality of substantially adjacent concurrently displayed columnar image areas defining a column table, the column table footprint having a fixed width,
>
> wherein each columnar image area individually presents a corresponding different one of the plurality of order related parameters of an order and incorporating a plurality of user selectable values for a respective order related parameter;
>
> [(e)] shift, in response to user selection of an element associated with the first columnar image area, displayed columnar image areas laterally, enabling a column of data items associated with the selected element to be incorporated in the display image; and
>
> [(f)] dynamically present, in response to user selection of a first value for a first order related parameter in a columnar

> image area for incorporation in said candidate order, corresponding compatible sets of order related parameter values in the remaining columnar image areas of said plurality of concurrently displayed columnar image areas enabling user selection of a complete candidate order.

REJECTION

Claims 1–5, 7–18, and 21 are rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more.

ANALYSIS

Patent-Ineligible Subject Matter

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." 35 U.S.C. § 101. The Supreme Court, however, has long interpreted § 101 to include an implicit exception: "[l]aws of nature, natural phenomena, and abstract ideas" are not patentable. *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014).

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 (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.*, 573 U.S. at 217. The first step in that analysis is to "determine whether the claims at issue are directed to one of those patent-ineligible concepts." *Id.* (citation omitted). If the claims are not directed to a patent-ineligible concept, e.g., an abstract idea, the inquiry ends. Otherwise, the inquiry proceeds to the second step where the elements of the claims are considered "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." *Id.* (quoting *Mayo*, 566 U.S. at 79, 78). This is "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.* at 217–18 (alteration in original).

After Appellant's briefs were filed, and the Examiner's Answer mailed, the USPTO published revised guidance for use by USPTO personnel in evaluating subject matter eligibility under 35 U.S.C. § 101. 2019 REVISED PATENT SUBJECT MATTER ELIGIBILITY GUIDANCE, 84 Fed. Reg. 50 (Jan. 7, 2019) (the "Revised Guidance").[3] That guidance revised the USPTO's examination procedure with respect to the first step of the *Mayo*/*Alice* framework such that a claim will generally be considered directed to an abstract idea if (1) the claim recites subject matter falling within one of the following groupings of abstract ideas: (a) mathematical concepts; (b) certain methods of organizing human activity, e.g., a fundamental economic principle or practice, a commercial or legal interaction; and (c) mental processes ("Step 2A, Prong One"), and (2) the claim does not integrate the abstract idea into a practical application, i.e., 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 ("Step 2A, Prong Two"). *See* Revised Guidance 52–55. The Revised Guidance

[3] The Revised Guidance, by its terms, applies to all applications, and to all patents resulting from applications, filed before, on, or after January 7, 2019. *Id.* at 50.

references MANUAL OF PATENT EXAMINING PROCEDURE ("MPEP") §§ 2106.05(a)–(c) and (e)–(h) in describing the considerations that are indicative that an additional element or combination of elements integrates the judicial exception, e.g., the abstract idea, into a practical application. *Id.* at 55. If the recited judicial exception is integrated into a practical application, as determined under one or more of these MPEP sections, the claim is not "directed to" the judicial exception.

Only if the claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application do we then look to whether the claim "[a]dds a specific limitation or combination of limitations" that is not "well-understood, routine, conventional activity in the field" or simply "appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception" ("Step 2B"). *Id.* at 56. With the legal principles outlined above, and the Revised Guidance in mind, we turn to the Examiner's § 101 rejection.

Step One of the Mayo/Alice Framework (*USPTO Guidance Step 2A*)

In rejecting the claims under 35 U.S.C. § 101, the Examiner determined that, considered as an ordered combination, the claims recite the concept of

> displaying user selectable candidate items for order for treatment to be administered to a patient retrieve from a repository in response to user entry, comprising order related parameters and identifiers provided by the repository for enabling a user to incorporate a set of selected parameters in a complete order including displaying corresponding compatible sets of order related parameters presented in response to selecting a first order related parameter.

Id. at 2–3 (emphasis omitted). The Examiner concluded that this concept is "a method of organizing human activity[] (i.e., a mental process that a doctor should follow when treating (i.e. formulating an order for treatment for) a patient." *Id.* at 3 (citation and emphasis omitted). The Examiner alternatively determined that the claimed subject matter could be described as selecting and displaying sets of order-related parameters corresponding to an order, which the Examiner likened to using categories to organize, store, and transmit information. *Id.* (citing *Cyberfone Systems, LLC v. CNN Interactive Group, Inc.*, 558 F. App'x 988, 992 (Fed. Cir. 2014)).

The Examiner determined that the additional limitations include a repository for storing information; a user interface for displaying an image, and shifting displayed columns laterally. *Id.* at 3–4. However, the Examiner found each of these limitations was no more than well-understood, routine, and conventional functions of a generic computer. Final Act 3–4.

The Federal Circuit has explained that "the 'directed to' inquiry applies a stage-one filter to claims, considered in light of the [S]pecification, 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 inquiry asks whether the focus of the claims is on a specific improvement in relevant technology or on a process that itself qualifies as an "abstract idea" for which computers are invoked merely as a tool. *See id.* at 1335–36.

Here, the Specification describes that known ordering systems use drop-down or pop-up lists to display allowable values of a data field, sentence, or a text statement. Spec. 1, ll. 16–17. A user needs to open and

interact with an individual drop down list or a popup list to select an allowable value for a data field. *Id.* at 1, ll. 19–21. If a user wants to change values in seven different data fields, the user would need to open seven different selection lists, and select a value for each data field from the list. *Id.* at 1, ll. 21–23. Moreover, the lists typically are not displayed concurrently. *Id.* at 1, ll. 23–24. Some lists allow concurrent value selection lists, but these lists are static in nature and cover only a limited number of data fields. *Id.* at 1, ll. 25–27. As a result, known ordering systems require a relatively large number of interactions with an application and, therefore, involve burdensome data entry tasks and expenditures of time. *Id.* at 1, ll. 27–29. Appellant's invention is intended to address these technological problems. *Id.* at 1, ll. 29–30.

For example, the Specification provides that Appellant's ordering system shortens time involved in performing a data entry task by concurrently displaying the most often used values in a single display image, which allows the user to select the desired values just by clicking on them or pointing to them. Spec. 3, ll. 29–32. Non-displayed (invisible) lists or non-displayed values in a list can be brought into view with a single user interaction, while still maintaining the advantage of being able to select values in other displayed lists. *Id.* at 3, ll. 32–34. The system also enables the selecting values for multiple data entry fields from multiple codependent dynamic value lists with minimum user interaction. *Id.* at 3, l. 34–4, l. 2.

In particular, based on a user-entered candidate order, the system generates a plurality of substantially adjacent concurrently displayed columnar image areas. *Id.* at 11, l. 29–12, l. 5. Each columnar image area has a fixed footprint width and individually presents a corresponding order

related parameter, having user-selectable values. *Id.* at 5, l. 24–6, l. 5. In response to a user's selection of an element, the system laterally shifts the displayed columnar image area, incorporating a column of data items associated with the element into the display image as a new columnar image area. *Id.* at 7, ll. 3–15. The system dynamically presents corresponding sets of order related parameter values based on the selection in the remaining columnar image areas. *Id.* at 1, l. 34–2, 1. 20; 7, ll. 16–28; Fig. 6.

Consistent with this disclosure, claim 1 recites the following step:

> [(c)] display, in response to user entry of order associated data, an image via a user interface including at least an initial candidate order, wherein the order includes a plurality of order related parameters, and order related parameter identifiers[.]

Limitation (c) when given its broadest reasonable interpretation, recites displaying order associated information for an order for treatment to be administered to a particular patent, i.e., a commercial interaction, which is a method of organizing human activity and, therefore, an abstract idea. *See* Revised Guidance 52.

Having concluded that claim 1 "recites" a judicial exception, i.e., an abstract idea, under Step 2A, Prong One of the Revised Guidance, we next consider whether the claim recites "additional elements that integrate the exception into a practical application" (Step 2A, Prong Two). Revised Guidance 54; *see also* MANUAL OF PATENT EXAMINING PROCEDURE ("MPEP") § 2106.05(a)–(c), (e)–(h).

Beyond the abstract idea, claim 1 additionally recites computer components (e.g., a user interface, a repository, a processing device, and computer storage media), as well as the following functions:

> [(a)] a repository including information identifying candidate items for order for treatment to be administered to a

> particular patient comprising corresponding order related parameters, an individual item or service for order comprising a plurality of order related parameters;
>
> [(b)] one or more computer storage media storing computer usable instructions that, when used by the one or more processors, cause the one or more processors to [perform limitations (c)–(f)];
>
> [(d)] generate, based on the candidate order, a plurality of substantially adjacent concurrently displayed columnar image areas including a first columnar image area, the plurality of substantially adjacent concurrently displayed columnar image areas defining a column table, the column table footprint having a fixed width,
>
> wherein each columnar image area individually presents a corresponding different one of the plurality of order related parameters of an order and incorporating a plurality of user selectable values for a respective order related parameter;
>
> [(e)] shift, in response to user selection of an element associated with the first columnar image area, displayed columnar image areas laterally, enabling a column of data items associated with the selected element to be incorporated in the display image; and
>
> [(f)] dynamically present, in response to user selection of a first value for a first order related parameter in a columnar image area for incorporation in said candidate order, corresponding compatible sets of order related parameter values in the remaining columnar image areas of said plurality of concurrently displayed columnar image areas enabling user selection of a complete candidate order.

The Appellant argues that the additional elements improve existing clinical ordering systems by providing the generation of constrained dynamic display grids comprising co-dependent and dynamic value lists, and enabling value lists of the grids to shift and become visible or invisible through single interactions while maintaining the advantage of concurrent data field valuations. App. Br. 8, 14; *see also* Reply Br. 9 (the claims "provide an improved clinical ordering system by generating constrained

dynamic display grinds comprising co-dependent and dynamic value lists to improve a technical process). We agree with Appellant that the additional claim elements, considered in light of the Specification's description of the shortcomings associated with conventional clinical ordering systems and the solution, shows that a specific asserted improvement in computer capabilities of existing, clinical ordering systems is being claimed.

In particular, the present invention addresses these shortcomings by generating a plurality of substantially adjacent concurrently displayed columnar image concurrently displayed columnar image areas including a first columnar image area, the plurality of substantially adjacent concurrently displayed columnar image areas defining a column table, and the column table footprint having a fixed width; shifting, in response to user selection of an element associated with the first columnar image area, displayed columnar image areas laterally, enabling a column of data items associated with the selected element to be incorporated in the display image; and dynamically presenting, in response to user selection of a first value for a first order related parameter in a columnar image area for incorporation in said candidate order, corresponding compatible sets of order related parameter values in the remaining columnar image areas of said plurality of concurrently displayed columnar image areas enabling user selection of a complete candidate order. Specific asserted improvements in computer capabilities, when claimed, can render claimed subject matter not directed to an abstract idea. *See McRO, Inc. v. Bandai Namco Games America Inc*., 837 F.3d 1299, 1316 (Fed. Cir. 2016) ("When looked at as a whole, claim 1 is directed to a patentable, technological improvement over the existing, manual 3–D animation techniques.").

We conclude, for the reasons set forth above, that claim 1 is integrated into a practical application under Step 2A, Prong Two of the Revised Guidance and, thus, not directed to an abstract idea. Therefore, we do not sustain the Examiner's rejection of claim 1, and its dependent claims under 35 U.S.C. § 101.

Independent claim 21 includes language substantially similar to the language of independent claim 1. We are persuaded that the Examiner erred in rejecting claim 21 under 35 U.S.C. § 101 for the same reasons set forth with respect to claim 1. Therefore, we do not sustain the Examiner's rejection under 35 U.S.C. § 101 of independent claim 21.

DECISION

The Examiner's rejection of claims 1–5, 7–18, and 21 under 35 U.S.C. § 101 is reversed.

REVERSED