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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte LONNY REISMAN, JEFFREY N. NADLER,
MADHAVI VEMIREDDY, and GREGORY BRIAN STEINBERG

Appeal 2017-006463
Application 12/038,536
Technology Center 3600

Before DENISE M. POTHIER, JENNIFER S. BISK, and
SCOTT B. HOWARD, *Administrative Patent Judges*.

POTHIER, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants^{1,2} appeal under 35 U.S.C. § 134(a) from the Examiner's rejections of claims 1–29. Appeal Br. 1. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

¹ Throughout this opinion, we refer to (1) the Final Action (Final Act.) mailed March 12, 2015, (2) the Appeal Brief (Appeal Br.) filed December 14, 2015, (3) the Examiner's Answer (Ans.) mailed July 1, 2016, and (4) the

Invention

Appellants' invention relates to a method, a system, and medium "for presenting a patient with an online interactive personal health record (PHR) capable of delivering individualized alerts based on comparison of evidence-based standards of care to information related to the patient's actual medical care." *See Spec., Abstract.*

Claim 1 is reproduced below with emphasis:

1. A method of providing a customized real-time medical alert to an individual patient via an electronic patient interface, the method comprising:

electronically querying, by a care engine system, a set of clinical rules from available evidence-based medical standards stored on a non-transitory computer readable medium, at least one such rule defining an expected mode of care given a particular set of clinical data;

interfacing, by the care engine system, with at least one network service for receiving medical care information relating to the patient, the at least one network service having real-time access to at least one source of data, including claims data reflecting clinical information relating to the patient obtained from at least one health care provider and submitted in connection with a claim under a health plan;

electronically organizing, by the care engine system, the received medical care information into a medical data file for the patient and storing the medical data file, the medical data file comprising patient clinical data, the patient clinical data

Reply Brief (Reply Br.) filed September 1, 2016. The second appeal brief filed September 23, 2016 was improperly submitted and will not be considered for purpose of this appeal. *See* 37 C.F.R. §§ 41.37 (permitting the filing of an appeal brief) and 41.41(a) (permitting Appellants to file *only a single* reply brief).

² The real party in interest is listed as Active Health Management Inc. Appeal Br. 1.

indicating an actual mode of care provided to the patient and derived from said claims data in a medical database;

in response to the receiving of the medical care information relating to the patient, applying the set of clinical rules, by a rules engine module in the care engine system, to the clinical data derived from said claims data in real-time to identify at least one alert based on the patient clinical data, and storing an indicator of the at least one alert and associated alert detail in the medical data file for the patient; and

interfacing, by the care engine system, with the at least one network service for sending the at least one alert to the electronic patient interface for displaying to the patient, the at least one alert and associated alert detail automatically generated based on the presence of the indicator of the at least one alert in the medical data file for the patient and comprising an explanation of circumstances underlying the at least one alert and a suggestion for patient follow up;

receiving a response from the electronic patient interface including a follow-up status indicating that the alert has been addressed; and

updating the indicator of the at least one alert with follow-up status.

Appeal Br. 13–14 (Claims App.).

The Examiner relies on the following as evidence of unpatentability:

Ciarniello	US 2004/0260155 A1	Dec. 23, 2004
Heckerman	US 2007/0112598 A1	May 17, 2007
Greene	US 2008/0033751 A1	Feb. 7, 2008

The Rejections

Claims 1–29 are rejected under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter. Ans. 2–4.³

³ The Examiner presents a new ground of rejection for claims 1–29 under 35 U.S.C. § 101 in the Answer. Ans. 2. We refer to this rejection throughout our Opinion.

Claims 1–17 and 19–29 are rejected under 35 U.S.C. § 103(a) as unpatentable over Heckerman and Ciarniello. Final Act. 3–10.

Claim 18 is rejected under 35 U.S.C. § 103(a) as unpatentable over Heckerman, Ciarniello, and Greene. Final Act. 11.

THE PATENT ELIGIBILITY REJECTION

Appellants argue claims 1–20 and 22–29 as a group and dispute dependent claim 21 separately. Appeal Br. 4–7. In the Reply Brief, Appellants additionally discuss claims 11 and 18. Reply Br. 4. We select claims 1, 11, 18, and 21 as representative. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Claims 1, 2, 4–10, 14–17, 19, 20 and 22–25

Appellants argue claim 1 is not drawn to an abstract idea (Appeal Br. 4, 6) and that Examiner “fail[s] to identify the alleged abstract idea with any specificity” (Reply Br. 1). Appellants further contend claim 1, as a whole, is a “narrowly focused, particularized solution to providing customized real-time medical alerts to patients” (Reply Br. 1) that does not preempt the allegedly abstract idea (Reply Br. 1–2). Appellants also argue claim 1 amounts to significantly more than any abstract idea. Appeal Br. 6; Reply Br. 2–3. Specifically, Appellants contend claim 1 “recite[s] additional elements, disregarded in the newly stated grounds for rejection, that specify a particular type of real-time medical alert that is sufficiently focused so as not to preclude others from carrying out the allegedly abstract ideas in a vast variety of alternative ways” and is therefore patent-eligible. Reply Br. 3; *see also* Reply Br. 3–4 and Appeal Br. 4.

ISSUE

Under § 101, has the Examiner erred in rejecting claim 1 by concluding the claim is directed to patent-ineligible subject matter?

ANALYSIS

Based on the record before us, we are not persuaded of error. In *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66, 70 (2012) and *Alice Corp. Pty. Ltd. v. CLS Bank International*, 134 S. Ct. 2347 (2014), the Court set forth a two-step analytical framework for evaluating patent-eligible subject matter. 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. If so, “consider the elements of each claim both individually and ‘as an ordered combination’ to determine whether the additional elements” add enough to transform the “nature of the claim” into “significantly more” than a patent-ineligible concept. *Id.* at 2355, 2357 (quoting *Mayo*, 566 U.S. at 79).

As a preliminary matter, Appellants contend the Examiner has not applied the proper test in concluding claim 1 is patent-ineligible under 35 U.S.C. § 101 and fails to consider the elements of the dependent claims. Appeal Br. 4, 6. The Examiner presented a new ground of rejection for all the claims under § 101 in the Answer. Ans. 2–4. Because Appellants do not repeat these arguments in the Reply Brief (Reply Br. 1–4), we presume Appellants no longer maintain these contentions. However, to the extent this assertion is maintained, we disagree as the Examiner analyzes both prongs of the *Mayo/Alice* test and addresses the dependent claims. *See* Ans. 2–4.

Mayo/Alice Step 1

Step one in the *Mayo/Alice* framework involves looking at the “focus” of the claims at issue and their “character as a whole.” *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016). This “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*, 822 F.3d at 1335 (quoting *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015)).

Appellants argue claim 1 is not directed to an abstract idea (Appeal Br. 6) and that the Examiner does not identify an abstract idea with specificity (Reply Br. 1). We disagree. The Examiner states claim 1’s abstract idea is drawn to “providing a customized real-time medical alert.” Ans. 2. This finding is supported by claim 1’s preamble, which recites “[a] method of providing a customized real-time medical alert to an individual patient.” Appeal Br. 13 (Claims App.). The Specification also supports the Examiner, stating embodiments of the present invention “include implementing a plurality of modules for providing real-time processing and delivery of clinical alerts and personalized wellness alerts to the patient via the PHR [(personal health record (PHR)].” Spec, Abstract. Thus, when considering claim 1 as a whole in light of the Specification, claim 1’s focus is directed to an abstract idea of providing customized real-time medical alerts.

Given the described abstract idea, we further determine the recited “electronically querying . . . a set of clinical rules,” “interfacing . . . with at least one network service for receiving medical care information relating to a

patient,” “electronically organizing . . . the received medical care information into a medical file for the patient and storing the medical file,” “applying the set of clinical rules . . . to the clinical data derived from said claims data in real-time to identify at least one alert based on the patient clinical data, and storing an indicator of the at least one alert and associated alert detail,” and “interfacing . . . with the at least one network service for sending the at least one alert to the electronic patient interface for displaying to the patient,” steps recited in claim 1 are part of the abstract idea of providing customized real-time medical alerts.

Appellants next argue claim 1 is directed to a particular way for providing real-time customized medical alerts, is narrowly focused on a particular solution, involves specific data, and does not preempt an abstract idea of customizing real-time medical alerts. Reply Br. 1–2. We are not persuaded. Lack of preemption does not make a claim any less abstract. *See Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015) (“While preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility”); *see also Parker v. Flook*, 437 U.S. 584, 589 (1978).

Moreover, even when the claimed information is limited to specific content (*see* Reply Br. 1–2), such as in claim 1, courts have found steps, such as collecting certain information (e.g., the recited “electronically querying . . . a set of clinical rules” and “interfacing . . . for receiving medical care information” steps), are within the realm of abstract ideas. *Elec. Power Grp.*, 830 F.3d at 1353; *see also* Ans. 2 (stating certain steps “are similar to the concepts identified as abstract ideas by the courts”). For example, courts have found that the following activities are drawn to

abstract ideas: gathering, analyzing, manipulating, and storing information and displaying results (e.g., the recited “electronically organizing . . . the received medical care information into a medical file for the patient and storing the medical file,” “applying the set of clinical rules . . . to the clinical data derived from said claims data in real-time to identify at least one alert based on the patient clinical data, and storing an indicator of the at least one alert and associated alert detail,” “interfacing . . . for displaying to the patient,” and “updating the indicator” steps in claim 1). *See Elec. Power Grp.*, 830 F.3d at 1354, *Content Extraction & Transmission LLC v. Wells Fargo*, 776 F.3d 1343, 1347 (Fed. Cir. 2014), *In re TLI Comms. LLC Patent Litig.*, 823 F.3d 607, 613 (Fed. Cir. 2016), and *Fairwarning IP, LLC v. Iatric Systems, Inc.*, 839 F.3d 1089, 1093–94 (Fed. Cir. 2016) (holding the functions of collecting personal health information, analyzing information according to rules, and providing notification are directed to abstract ideas). Additionally, receiving or sending information, similar to recitations in claim 1 (e.g., “interfacing . . . with at least one network service for receiving medical care information relating to a patient” and “interfacing . . . for” (1) “sending the at least one alert to the electronic patient interface” and (2) “receiving a response” steps), have been held to be processes directed to abstract idea. *See Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1313 (Fed. Cir. 2016).

In its Appeal Brief, Appellants assert the claimed invention includes a “care engine system” enabling what cannot be performed by a human or using pen and paper. Appeal Br. 6. Specifically, Appellants contend the care engine system enables the electronic collection of claims and clinical data, the real-time application of clinical rules to data, generating and

displaying an alert for the patient, and receiving electronic feedback from the patient regarding the alert. Appeal Br. 6. We are not persuaded.

As noted above, the focus of claim 1 is not on an improvement in the case engine system (or any other recited computer component) but rather on certain abstract ideas of customizing real-time medical alerts and following up on the alerts that use computer components as tools. *See Elec. Power Grp.*, 830 F.3d at 1354; *see also TLI Comms.*, 823 F.3d at 612. In any event, some of the above-identified steps argued to be enabled by the “care engine system” use other components, including a rules engine module (e.g., the “applying the set of rules . . . to identify the at least on alert” step) and an electronic patient interface (“for displaying” the alert to the patient step), to perform their functions. Also, but for the recitation of these computer hardware or software components in claim 1, we agree with the Examiner the above, recited steps or functions could be performed as mental steps, or with the aid of pen and paper. *See CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1375 (Fed. Cir. 2011) (“That purely mental processes can be unpatentable, even when performed by a computer, was precisely the holding of the Supreme Court in *Gottschalk v. Benson*[, 409 U.S. 63 (1972)]”). Courts have treated “analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes within the abstract-idea category.” *Elec. Power Grp.*, 830 F.3d at 1354.

Accordingly, when considering claim 1’s character as a whole consistent with the Specification, the claim’s focus is directed to at least one abstract idea.

Mayo/Alice Step 2

Because we determine claim 1 is directed to at least one abstract idea, we proceed to analyze the claim under step two. We consider the elements of claim 1 both individually and as a combination to determine whether the additional elements add enough to transform the claim into significantly more than a patent-ineligible concept. Step two involves the search for an “inventive concept.” *Alice*, 134 S. Ct. at 2355; *Elec. Power Grp.*, 830 F.3d at 1353. An “inventive concept” requires more than “well-understood, routine, conventional activity already engaged in” by the relevant community. *Rapid Litig. Mgmt. Ltd. v. CellzDirect, Inc.*, 827 F.3d 1042, 1047 (Fed. Cir. 2016) (quoting *Mayo*, 566 U.S. at 79–80).

Appellants contend claim 1 recites additional elements that amount to significantly more than the abstract idea. Appeal Br. 6. In particular, Appellants assert generating an alert using real-time application of clinical rules to a patient’s medical claim-based health information elevates the claimed invention to more than providing a customized real-time medical alert. Appeal Br. 6. But, Appellants fail to identify how such rules are used to improve a relevant technology, such that they are more than an abstract idea or amount to an inventive concept. *See* Appeal Br. 6.

Appellants allege the additional elements that amount to significantly more are the recited “receiving a response from the electronic patient interface including a follow-up status indicating that the alert has been addressed.” Reply Br. 4. As previously stated, the “interfacing, by the care engine system, with at least one network service for” receiving a response and sending the alert steps are part of the abstract idea of providing a customizing medical alert. We thus are not persuaded that the interfacing

step “for sending an alert” is an *additional* element that transforms the noted abstract idea.

Appellants also assert the inclusion of a display, interfaces, and real-time constraints demonstrate the claimed invention is rooted in computer technology sufficiently to transform the claimed invention into significantly more. Appeal Br. 6. We disagree. The above-noted “interfacing” step does involve “one network service.” But, a computer component sending information (e.g., an alert) over a network is not an inventive concept under § 101. *See buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014). Like the Examiner (Ans. 3–4), we agree the additional elements in claim 1 (e.g., the recited “interface for displaying to the patient”) fail to transform the claim’s nature into a patent-eligible concept; rather, they are merely tools used to perform the claim’s steps. *See Alice*, 134 S. Ct. at 2358 (holding “the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention”).

For example, the additional element of the “electronic patient interface” used to display to the patient the alert is recited “at a high level” (Ans. 3) and is not sufficient to amount to significantly more than the judicial exception. Ans. 3–4. The Specification also describes the interface in generalities, stating alerts 104 are prominently displayed with a user interface of PHR 108, such as that shown in Figures 3 and 4. Spec. ¶¶ 42, 46–48, Figs. 1, 3, 4 (element 400). Thus, the nature of claim 1’s additional elements (e.g., the electronic patient interface) implement or perform the abstract idea using generic computer components to achieve claimed results and merely provide a generic environment in which to carry out claim 1’s abstract ideas. *See* Ans. 3–4; *see also TLI*, 823 F.3d at 611.

As for the specific assertion that the recited “receiving a response” step that includes “a follow-up status indicating that the alert has been addressed” is significantly more than the abstract idea (Reply Br. 3–4), we are not convinced. That is, claim 1 is drawn to at least one abstract idea, including customizing real-time medical alerts and receiving responses that includes a follow-up status indicating that the alert has been addressed (e.g., receiving information). *See Intellectual Ventures I*, 838 F.3d at 1313 (indicating steps of receiving or sending information are considered to be processes directed to abstract idea). Thus, this noted “receiving” step can be considered part of the identified abstract idea(s) of claim 1 and not an additional element for consideration as to whether the element adds enough to transform the claim into significantly more than a patent-ineligible concept. To be sure, the disputed “receiving” step uses “the electronic patient interface” to receive the response. But, as previously discussed, this additional element fails to transform claim 1’s nature into a patent-eligible concept but rather is used as a tool to perform the claim’s steps. *See Alice*, 134 S. Ct. at 2358.

Appellants also contend claim 1 recites additional elements “that specify a particular type of real-time medical alert that is sufficiently focused so as not to preclude others from carrying out the abstract ideas in alternative ways. Reply Br. 3. As noted above, “limiting the claims to a particular technological environment . . . is, without more, insufficient to transform them into patent-eligible applications of the abstract idea at their core.” *Electric Power Grp.*, 830 F.3d at 1354; *see also Alice*, 134 S.Ct. at 2358. Moreover, to the extent that Appellants contend using real-time data transforms the abstract idea into significantly more than a patent-ineligible

concept (Reply Br. 3), we are not persuaded. For example, the claims in *Electric Power Grp.* address systems and method for performing real-time performance of an electric power grid, but the fact the claims use real-time data or perform real-time analysis was insufficient to transform its abstract idea into significantly more. *Electric Power Grp.*, 830 F.3d at 1351–52, 1354–56. Moreover, the Specification also indicates the practice of providing real-time medical alerts already existed. *See* Spec. ¶ 2.

To the extent Appellants are attempting to draw parallels between the claims in the instant application and *Bascom Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016) (Reply Br. 2–3), this argument is unavailing. *Bascom* concerns claims addressing a content filtering system having a filtering scheme and logical filtering element set. The *Bascom* court determined the claimed combination resulting in a filtering tool located remote from end-user that harnesses network technology, while permitting customizing by the user locally, is an improvement in a computer system itself or an existing technological process. *Bascom*, 827 F.3d at 1350–51. However, claim 1 in the instant application is not a filtering component. Nor do Appellants allege claim 1 improves an existing technological process. Thus, any purportedly analogy does not hold.

Next, to the extent Appellants attempt to draw a comparison between claim 1 and claims in *Ex parte Barous*, Appeal No. 2016-003320 (PTAB August 1, 2016) (Reply Br. 3), we are not persuaded. “[I]t is immaterial in ex parte prosecution whether the same or similar claims have been allowed to others.” *In re Wertheim*, 541 F.2d 257, 264 (CCPA 1976). Moreover, *Ex parte Barous* is a non-precedential opinion and is not binding on us.

For the above reasons, claim 1's limitations, viewed both individually and as an ordered combination, do not amount to significantly more than a judicial exception and do not sufficiently transform the nature of the claim into patent-eligible subject matter. Accordingly, Appellants have not persuaded us the Examiner erred in the rejecting independent claim 1 and claims 2, 4–10, 14–17, 19, 20 and 22–25, which are not separately argued.

Claims 3, 21, and 26–29

Claim 21 is separately argued. Appeal Br. 7. We select claim 21 as representative and group claims 3 and 26 with claim 21, as they have limitations similar to those in claim 21. Claims 27–29 depend from claim 26 and are also grouped with claim 21. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Appellants argue claim 21 recites an alert payload filtering module that reduces real-time message payload carried by the network service, and this additional feature, which purportedly was not considered by the Examiner, amounts to significantly more than the abstract idea of providing customized real-time medical alerts. Appeal Br. 6–7 (citing Spec. ¶¶ 17, 70–71, 83, Fig. 19).

The Specification discusses the alert filtering module reduces the payload on the system and improves the speed of the alert delivery by eliminating redundancies. Spec. ¶ 17. The Specification addresses approaches used to filter alerts and reduces payload. Spec. ¶¶ 70–71, Fig. 19. Claim 21 highlights some of these approaches, reciting:

comprising an alert payload filtering module for reducing real-time message payload carried by the at least one network service by dynamically filtering a plurality of alerts generated by the rules engine for the patient by *at least one of* alert justification, alert redundancy, alert recommendation family,

historical alert recipients, *predetermined alert recipient preference*, alert severity, and alert communication method.

Appeal Br. 20 (Claims App.) (italics added).

However, as the Examiner indicates (Ans. 6–7) and as emphasized above, using a recipient’s predetermined preferences (e.g., manually entered) to reduce payload is not rooted in computer technology. Thus, although some of the approaches in claim 21 may be an improvement in payload filtering module technology (*see* Reply Br. 2), the breadth of claim 21 includes at least one patent-ineligible concept.

Accordingly, we sustain the § 101 rejection for claim 21 and claims 3 and 26–29, which are not separately argued.

Claims 11–13 and 18

Claims 11 and 18 are separately argued. Reply Br. 4. Claims 12 and 13 depend directly or indirectly from claim 11. We select claims 11 and 18 as representative. *See* 37 C.F.R. § 41.37(c)(1)(iv).

For claim 11, Appellants assert the limitation of “providing a graphical display showing the trend of the health indicator over time” transforms the claim’s additional elements into significant more than the abstract idea (Reply Br. 4); for claim 18, Appellants argue the limitation of generating “a physician performance score,” displaying the score using an electronic physician interface, and regenerating the physician score in real-time to update the display transform the claim’s additional elements into significant more than the abstract idea. Reply Br. 4. We are not persuaded.

Many of the above steps are directed to abstract ideas of analyzing data, manipulating data, and displaying results. We refer above for more detail. As to whether the additional elements, including a display or

interface to display information (e.g., a trend or a score) in claims 11 or 18, add enough to transform the claimed invention into significantly more than the abstract idea, we refer above regarding how merely recited a generic computer or interface as a computer tool to perform the abstract idea is insufficient to transform the claimed invention into a patent-eligible concept.

For the above reasons, we sustain the § 101 rejection for claims 11 and 18 and dependent claims 12 and 13, which are not separately argued.

OBVIOUSNESS REJECTION BASED ON HECKERMAN AND CIARNIELLO

Claims 1, 2, 4–17, 19, 20, and 22–25

Appellants argue claims 1, 2, 4–17, 19, 20, and 22–25 as a group. Appeal Br. 4–7. We select claim 1 as representative. *See* 37 C.F.R. § 41.37(c)(1)(iv).

ISSUES

Under § 103, has the Examiner erred in rejecting claim 1 by finding that Heckerman and Ciarniello would have taught or suggested

(I) in response to the receiving of the medical care information relating to the patient, applying the set of clinical rules . . . to the clinical data derived from said claims data in real-time to identify at least one alert based on the patient clinical data, and storing an indicator of the at least one alert and associated alert detail in the medical data file for the patient

(“the disputed ‘applying’ step”) and

(II) “receiving a response from the electronic patient interface including a follow-up status indicating that the alert has been addressed” (“the disputed ‘receiving’ step”)?

ANALYSIS

Based on the record before us, we find no error in the Examiner’s rejection of claim 1. The rejection relies on Heckerman to teach or suggest the disputed “applying” and “receiving” steps. Final Act. 3–4 (citing Heckerman ¶¶ 42, 49–51). We thus confine our discussion to Heckerman.

I.

Appellants assert Heckerman discloses sending data to a health-related system but does not store an alert and associated alert detail in a medical file for a patient as claim 1 requires. Appeal Br. 9 (citing Heckerman ¶¶ 43, 49). We are not persuaded.

Heckerman discloses applying rules (e.g., a machine-learning component 150) to various patent-specific information to draw conclusions about a user’s health needs. Heckerman ¶ 42, Fig. 1. For example, Heckerman teaches sending an alert notifying a user of various beneficial behavior modifications to reduce a risk of a heart attack or an alert to discuss with a physician preventive therapies and useful diagnostic tests. Heckerman ¶ 42. In order to send such an alert, Heckerman teaches storing an indicator of the alert and alert details for the patient at least temporarily.

Heckerman also discusses a user can register for alerts related to medications the user is taking. Heckerman ¶ 49. Heckerman even further explains a user can be queried about medications a user is taking, such as the drug’s name and blood pressure measurements, to detect counterfeit drugs,

suggesting a user is presented with an alert periodically to enter his or her blood pressure. *See* Heckerman ¶ 50. In this embodiment, Heckerman further states the information is stored to determine whether the patient is adequately responding to therapy. Heckerman ¶ 50. By recording the blood pressure information, Heckerman suggests some type of indicator is stored in system 300 indicating that an alert to enter a blood pressure measurement was sent to the user along with an associated alert detail (e.g., blood pressure values). *See* Heckerman ¶ 50, Fig. 3. Also, because this information relates to a specific user, Heckerman further suggests this information is stored in the user’s medical file or “in the medical file” as recited. Thus, although not explicitly stated, Heckerman teaches or suggests “storing an indicator of the at least one alert and associated alert detail in the medical data file for the patient” as recited in claim 1.

Appellants also contend “any ‘alerts’ in Heckerman arise from a batch-type process resulting from mining a database” and thus Heckerman fails to teach “applying clinical rules to clinical data in real time to generate an alert.” Appeal Br. 9; *see also* Appeal Br. 9–10 (citing Heckerman ¶ 49 and Spec. ¶ 13). We are not persuaded.

To the extent Appellants contend Heckerman does not generate alerts in real-time, claim 1 does not require the alert be sent in real-time but rather “*applying the set of clinical rules . . . to the clinical data derived from said claims data in real-time to identify at least one alert.*” Appeal Br. 13 (Claims App.) (italics added). Granted, the preamble recites its intended use to “provid[e] a customized real-time medical alert.” Appeal Br. 13 (Claims App.). Also, the Specification discusses using real-time data or defining rules engine run with real-time data. Spec. ¶ 13, *cited in* Appeal Br. 10.

But, claim 1’s body merely recites applying the rules “in response to the receiving of the medical care information” to identify an alert and the “interfacing . . . with at least one network service for receiving medical care information” which has “real-time *access*” to data. Appeal Br. 13 (Claims App.) (*italics added*). Thus, to the extent the Specification describes generating real-time alerts, we decline to import this embodiment into claim 1, which fails to recite real-time alerts, using real-time data,⁴ or defining rule engine run in real-time.

In any event, Heckerman teaches or suggests machine-learning component 150 applies its rules in real-time to identify alerts. Heckerman ¶¶ 42, 49–50. For example, Heckerman states “[i]f a pattern associated with the user’s medication is recognized by the system 300, the forwarding component 360 can send an alert to the user notifying the user of the relationship.” Heckerman ¶ 49. Based on this teaching, Heckerman suggests data is analyzed in real-time (e.g., applying rules in real-time as recited) and alerts are sent when patterns are recognized. *See* Heckerman ¶ 49. Thus, Appellants’ assertion that Heckerman processes alerts in batches (Appeal Br. 9) is speculative. It is well-settled that counsel’s arguments cannot take the place of factually supported objective evidence. *See, e.g., In re Huang*, 100 F.3d 135, 139–40 (Fed. Cir. 1996).

II.

Appellants contend Heckerman does not teach the disputed “receiving” step. Appeal Br. 9. Other than this assertion, Appellants do not further argue this limitation. *See* Appeal Br. 9–10. In the Reply Brief,

⁴ Appellants acknowledge Heckerman teaches receiving real-time data. Reply Br. 4 (citing Heckerman ¶ 25); *see also* Ans. 8.

Appellants additionally assert Heckerman does not teach responding to alerts but rather to questions. Reply Br. 4 (responding the Examiner’s discussion in Ans. 9 (citing Heckerman ¶ 41)). We are not persuaded.

Turning to the rejection in the Final Action, the Examiner relies on paragraph 50 in Heckerman. Final Act. 4 (citing Heckerman ¶ 50 and stating “patients response to treatment over time indicates if an alert has been addressed”). Focusing on these findings, we find no error.

As previously stated, paragraph 50 in Heckerman teaches or suggests sending alerts to a user to enter blood pressure measurements (e.g., queried by system 300) periodically to detect counterfeit drugs and whether a user is responding to therapy. Heckerman ¶ 50. Thus, Heckerman teaches or suggests receiving responses from the user from an interface that includes a follow-up status indicating the alert has been addressed (e.g., entry of the blood pressure measurement is stored in system 300). Additionally, Heckerman teaches employing machine-learning techniques 350 of system 300, which indicate whether a user is responding to therapy or not. Heckerman ¶ 50. This further demonstrates the responses are follow-up statuses indicating the alert had been addressed (e.g., a determination that the user is responding to therapy indicates the possible counterfeit drug alert has been addressed). *See* Heckerman ¶ 50.

For the foregoing reasons, Appellants have not persuaded us of error in the rejection of independent claim 1 and claims 2, 4–17, 19, 20, and 22–25, which are not separately argued.

Claims 3, 21, and 26–29

Appellants argue claims 3, 21, and 26–29 as a group. Appeal Br. 10–11. We select claim 26 as representative. *See* 37 C.F.R.

§ 41.37(c)(1)(iv). Claim 26 recites in relevant part “filtering the plurality of patient alerts by at least one of alert justification, alert redundancy, alert recommendation family, historical alert recipients, predetermined alert recipient preference, alert severity and alert communication method to create an optimized patient alert set containing at least one of the plurality of patient alerts.” Appeal Br. 23 (Claims App.). The Examiner relies on Heckerman to reject claim 3, which has similar limitations to claim 26. Final Act. 6 (citing Heckerman ¶¶ 37, 49, 54), 10 (referring to similar limitations as those already discussed when addressing claim 26). Because the Examiner relies on Heckerman to teach claim 26’s limitations, we confine our discussion to this reference.

Appellants contend Heckerman does not teach the above limitation in claim 26. Appeal Br. 11. Specifically, Appellants assert the cited paragraphs are silent about alerts and filtering alerts. Appeal Br. 11. We disagree. As discussed above, Heckerman teaches a user can register for alerts about medications the user is taking. Heckerman ¶ 49. Additionally, Heckerman teaches system 300 facilitates in early detection of drug side effects and interactions and provide users with medication alerts, suggesting that there are numerous medication alerts available. *See* Heckerman ¶ 49. Thus, when a user registers for alerts for medications the user is taking (e.g., two different medications or “a predetermined alert recipient preference” as recited), Heckerman teaches or suggests a system that filters a number of patient alerts (e.g., all the medications alerts) by least a predetermined alert recipient preference as recited in claim 26. *See* Heckerman ¶ 49.

We thus disagree that “[t]here is no mention of a plurality of alerts for a particular user” in Paragraph 49. Appeal Br. 11. Moreover, contrary to

Appellants' assertion (Appeal Br. 11), Heckerman's registration process "create[s] an optimized patient alert set containing at least one of a plurality of patient alerts" as recited.

Accordingly, Appellants have not persuaded us of error in the rejection of independent claim 26 and claims 3, 21, and 27–29, which are not separately argued.

THE REMAINING OBVIOUSNESS REJECTION

Claim 18 is rejected under 35 U.S.C. § 103 based on Heckerman, Ciarniello, and Greene. Final Act. 11. Claim 18 is separately discussed. Appeal Br. 11–12. Appellants contend claim 18 should be found patentable "[f]or the reasons given above, claim 1—from which claim 18 depends—includes elements not taught by the combination of Heckerman and Ciarniello" and "[b]ecause Greene does not include these elements." Appeal Br. 11. We are not persuaded as previously discussed and need not consider whether Greene discloses any limitations allegedly not taught by Heckerman and Ciarnello. We sustain the obviousness rejection of claim 18.

DECISION

We affirm the Examiner's rejection of claims 1–29 under 35 U.S.C. §§ 101 and 103.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED