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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JUHA KAUPPINEN and JANNE NORD

Appeal 2018-006447
Application 12/777,404
Technology Center 3600

Before HUBERT C. LORIN, CYNTHIA L. MURPHY, and
MATTHEW S. MEYERS, *Administrative Patent Judges*.

LORIN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1, 3–6, and 8–12. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the term “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. The Appellant identifies Varian Medical Systems International AG as the real party in interest. Appeal Br. 3.

CLAIMED SUBJECT MATTER

The claimed subject matter “relates generally to developing care paths” (Spec., para. 1). Claim 1, reproduced below with emphasis, is illustrative of the claimed subject matter:

1. A method comprising:
by a control circuit:

developing, in parallel, care paths for at least one corresponding patient, wherein the care paths include a plurality of care paths that specify applying therapeutic radiation to the patient and wherein developing the care paths includes serially completing a plurality of corresponding care-path-development phases using input information wherein at least two of the care paths are competing treatment approaches;

before concluding development of at least one of the care paths, and upon determining a change to the input information during the developing based upon information developed by a care-path-development phase of another of the care paths being developed in parallel to the at least one of the care paths, automatically halting at least one but not all of the care-path-development phases as a function of the change and continuing to develop the at least one care path using the information developed by the care-path-development phase of the another of the care paths being developed in parallel to the at least one of the care paths;

facilitating selection from amongst at least the two care paths that are competing treatment approaches a preferred care path to employ for the patient.

REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Avinash	US 2007/0118399 A1	May 24, 2007
Haider	US 2009/0070137 A1	Mar. 12, 2009

REJECTIONS

Claims 1, 3–6, and 8–12 are rejected under 35 U.S.C. § 101 as being directed to judicially-excepted subject matter without significantly more.

Claims 1, 3–6, and 8–12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Haider and Avinash.

OPINION

The rejection of claims 1, 3–6, and 8–12 under 35 U.S.C. § 101 for claiming patent-ineligible subject matter.

Preliminary comments

The Appellant argued these claims as a group. *See* Appeal Br. 7–14. We select claim 1 as the representative claim for this group, and the remaining claims 3–6, and 8–12 stand or fall with claim 1. 37 C.F.R. § 41.37(c)(1)(iv).

The 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019), hereinafter “2019 Revised 101 Guidance,” supersedes the earlier guidance that was in effect at the time the Appeal Brief was filed. *Id.* at 51 (“Eligibility–related guidance issued prior to the Ninth Edition, R–08.2017, of the MPEP (published Jan. 2018) should not be relied upon.”). Accordingly, our analysis will not address the sufficiency of the Examiner’s rejection against the Office’s previous guidance. Rather, our analysis will comport with the 2019 Revised 101 Guidance.

Introduction

35 U.S.C. § 101 provides that “[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor.”

In that regard, claim 1 covers a “process” and is thus statutory subject matter for which a patent may be obtained.² This is not in dispute.

Section 101, however, “contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014) (quoting *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)).

In that regard, notwithstanding claim 1 covers statutory subject matter, the Examiner has raised a question of patent eligibility on the ground that claim 1 is directed to an abstract idea.

Alice identifies a two-step framework for determining whether claimed subject matter is directed to an abstract idea. *Alice*, 573 U.S. at 217. *Alice step one – the “directed to” inquiry*

According to *Alice* step one, “[w]e must first determine whether the claims at issue are *directed to* a patent-ineligible concept.” *Alice*, 573 U.S. at 218 (emphasis added).

The Examiner determined that claim 1

recites the steps of receiving input information, developing care paths, and selecting care path. The concepts in the claims corresponds to concepts identified as abstract ideas by the courts, such as collecting information (receiving input information), analyzing it (analyzing the care path development), and displaying certain results of the collection and analysis (displaying the recommended care paths) as seen in *Electric Power Group [Elec. Power Grp., LLC v. Alstom S.A.]*, 830 F.3d

² This discussion corresponds to Step 1 of the 2019 Revised 101 Guidance which requires determining whether a “claim is to a statutory category.” 84 Fed. Reg. at 53; *see also id.* at 53–54 (“consider[] whether the claimed subject matter falls within the four statutory categories of patentable subject matter identified by 35 U.S.C. 101”).

1350 (Fed. Cir. 2016)]. Specifying the type of information being manipulated (care paths) does not render the ideas any less abstract. In addition, the claim recites halting the care path which is an extra solution activity and does not further limit the abstract idea. The Concept described in claim 1 is not meaningfully different than those concepts found by the courts to be abstract idea.

Final Act. 2–3.

The Appellant contends that the “claims are directed to an improvement in technology rather than to an unduly abstract notion (such as a business practice) and hence pass part one of the patent-eligibility test.” Appeal Br. 11.

Accordingly, there is a dispute over what claim 1 is directed to. Is it directed to common information processing (Final Act. 2–3) or “an improvement in technology” (Appeal Br. 11)?

*Claim Construction*³

³ “[T]he important inquiry for a § 101 analysis is to look to the claim.” *Accenture Glob. Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1345 (Fed. Cir. 2013). “In *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can.*, 687 F.3d 1266, 1273 (Fed. Cir. 2012), the court observed that ‘claim construction is not an inviolable prerequisite to a validity determination under § 101.’ However, the threshold of § 101 must be crossed; an event often dependent on the scope and meaning of the claims.” *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1347–48 (Fed. Cir. 2015).

We consider the claim as a whole⁴ giving it the broadest reasonable construction⁵ as one of ordinary skill in the art would have interpreted it in light of the Specification⁶ at the time of filing.

Claim 1 calls upon a “control circuit” to “facilitat[e] selection from amongst at least the two care paths that are competing treatment approaches a preferred care path to employ for [a] patient” via a scheme whereby care paths are developed in parallel by, *inter alia*, “serially completing a plurality of corresponding care-path-development phases using input information.” If “the input information during the developing based upon information developed by a care-path-development phase of another of the care paths being developed” is changed, “at least one but not all of the care-path-development phases” is “automatically halt[ed]”

as a function of the change and continuing to develop the

⁴ “In determining the eligibility of respondents’ claimed process for patent protection under § 101, their claims must be considered as a whole.” *Diamond v. Diehr*, 450 U.S. 175, 188 (1981).

⁵ 2019 Revised 101 Guidance, page 53, footnote 14 (If a claim, under its *broadest reasonable interpretation*”) (emphasis added.)

⁶ “First, it is always important to look at the actual language of the claims. . . . Second, in considering the roles played by individual limitations, it is important to read the claims ‘in light of the specification.’” *Smart Systems Innovations, LLC v. Chicago Transit Authority*, 873 F.3d 1364, 1378 (Fed. Cir. 2017) (J. Linn, dissenting in part and concurring in part), *citing Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016), among others.

at least one care path using the information developed by the care-path-development phase of the another of the care paths being developed in parallel to the at least one of the care paths[.]

The “control circuit” is known and generic.⁷ *See Spec.*, para. 19 (“This control circuit can be realized using any of a wide variety of available and/or readily configured platforms, including partially or wholly programmable platforms as are known in the art or dedicated purpose platforms as may be desired for some applications.”)

We reasonably broadly construe claim 1 as being directed to using a generic control circuit to select a treatment approach.

*The Abstract Idea*⁸

Above where we reproduce claim 1, we identify in italics the limitations we believe recite an abstract idea.

⁷ *Cf. Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1341 (Fed. Cir. 2017) (“[T]he claims recite . . . a generic computer element—a processor— . . .”); *Planet Bingo, LLC v. VKGS LLC*, 576 F. App’x 1005, 1008 (Fed. Cir. 2014) (nonprecedential) (“[T]he claims at issue . . . require ‘a computer with a central processing unit,’ ‘a memory,’ ‘an input and output terminal,’ ‘a printer,’ in some cases ‘a video screen,’ and ‘a program . . . enabling’ the steps of managing a game of bingo . . . the claims recite a generic computer implementation of the covered abstract idea.”); and, *Smartflash LLC v. Apple Inc.*, 680 F. App’x 977, 984 (Fed. Cir. 2017) (nonprecedential) (“[W]e find here that ‘interfaces,’ ‘program stores,’ and ‘processors’ are all generic computer components.”)

⁸ This corresponds to Step 2A of the 2019 Revised 101 Guidance. Step 2A determines “whether a claim is ‘directed to’ a judicial exception,” such as an abstract idea. 2019 Revised 101 Guidance 53. Step 2A is a two prong inquiry.

The recited italicized limitations, individually and collectively, describe mental processes; that is, “developing,” “determining,” “automatically halting,” “continuing to develop,” and “facilitating selection” of various types of information. These concepts are akin to making observations and evaluations that can be performed in the human mind and thus are matters that fall within the “[M]ental processes” enumerated grouping of abstract ideas, both as to each claim limitation and the claim as a whole.⁹

⁹ This corresponds to Prong One [“Evaluate Whether the Claim Recites a Judicial Exception”] (b) of Step 2A of the 2019 Revised 101 Guidance. “To determine whether a claim recites an abstract idea in Prong One, examiners are now to: . . . (b) determine whether the identified limitation(s) falls within the subject matter groupings of abstract ideas enumerated in Section 1 of the [2019 Revised 101 Guidance].” *Id.* at 54. This case implicates subject matter grouping “(c)”:

(c) Mental processes—concepts performed in the human mind (including an observation, evaluation, judgment, opinion).

Id. at 52.

*Improvement in the Functioning of a Computer*¹⁰ (Appellant's Argument)

The Examiner's characterization of what the claim is directed to (common information processing (Final Act. 2–3)) is similar to our own (“developing,” “determining,” “automatically halting,” “continuing to develop,” and “facilitating selection” of various types of information), albeit ours is described at a lower level of abstraction. *Cf. Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240–41 (Fed. Cir. 2016) (“An abstract idea can generally be described at different levels of abstraction. As the Board has done, the claimed abstract idea could be described as generating menus on a computer, or generating a second menu from a first menu and sending the second menu to another location. It could be described in other ways, including, as indicated in the specification, taking orders from restaurant customers on a computer.”) Presumably, the Appellant would challenge our characterization in a way similar to the Appellant's challenge of the Examiner's characterization as set forth in the briefs.

¹⁰ This corresponds to Prong Two (“If the Claim Recites a Judicial Exception, Evaluate Whether the Judicial Exception Is Integrated Into a Practical Application”) of Step 2A of the 2019 Revised 101 Guidance. 2019 Revised 101 Guidance 54. “A claim that integrates a judicial exception into a practical application will apply, rely on, or use the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception.” *Id.* One consideration, implicated here, that is “indicative that an additional element (or combination of elements) may have integrated the exception into a practical application” (*id.* at 55) (footnote omitted) as if “[a]n additional element reflects an improvement in the functioning of a computer, or an improvement to other technology or technical field” (*id.*).

We have reviewed the record and are unpersuaded as to error in our or the Examiner's characterization of what claim 1 is directed to.

Appellant argues that the "claims are directed to an improvement in technology." Appeal Br. 11. Appellant seeks to make the case that there are "specific technological benefits" (*id.* at 8) from practicing the claimed method. Appellant cites *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016) for the proposition that when a claim's plain focus is on an improvement in computer functionality, then the claim is not directed to an abstract idea, adding:

Much the same can be said about the applicant's claims in the present application. Indeed, the present claims are not only directed to what is being done (i.e., developing care paths, detecting changes to information, and responding to those changes while continuing to develop the care paths) but how those things are being done in a technological sense; i.e., in "parallel" in a "control circuit" and in a way that articulates and requires a specific interdependence between developing paths.

Appeal Br. 11 (emphasis omitted). Appellant also cites *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299 (Fed. Cir. 2016) to make a similar argument. *See* Appeal Br. 11–13.

We are unpersuaded that claim 1 is directed to a technological problem associated with "control circuits." To the extent that the Appellant means to argue that the recited steps functionally improve the "control circuit" (claim 1), neither Appellant nor the Specification adequately explains how that is so.

Appellant directs our attention to paragraph 36 of the Specification as "specif[ying] technological benefits . . . that correspond to the . . . interactive

capability [claim 1 is argued as describing].” Appeal Br. 8. We reproduce paragraph 36:

Even this simple example suggests certain benefits of these teachings. In particular, in this example, any of the care path developments of step 101 [Fig. 1] that are striving to derive a particular item of information can cease striving in those regards when the information becomes available in some other way (for example, from the parallel efforts to develop other care paths, from the end user, or otherwise).

We do not see any “specific technological benefits” mentioned there.

Appellant also reproduces three passages from the Specification said to provide “expla[nation] in the specification that developing multiple care paths in parallel helps to solve this technological conundrum.” Appeal Br. 8.

Two of the passages (Spec. paragraphs 4 and 17) talk about “computational resources.” Claim 1 does limit the “control circuit” to such devices (e.g., a computer) where “computational resources” is a problem. Thus, the argument is not commensurate in scope with what is claimed. Be that as it may, the Specification states that “[i]n some cases such requirements [i.e., ‘requir[ing] time and/or computational resources that are not practically met in all settings’] can be alleviated to some extent by helpful intervention from time to time on the part of a skilled technician.” Spec., para. 4. This suggests that the claimed “control circuit” is *not* necessary to help solve technological conundrum of “computational resources.” The Specification goes on to say that “[u]nfortunately, existing approaches in these regards are not user friendly. As a result, it can be difficult to ensure that an end user will interact in both a useful and timely manner with the execution of such a process.” Spec., para. 4. However, since claim 1 does not include a step of user interaction, we do not see how

the claimed method “ensure[s] that an end user will interact in both a useful and timely manner with the execution of such a process.”

The other passage (Spec., paragraph 39) reproduced in the Appeal Brief (page 8) talks about “quickly finding one or more optimum care paths for a given patient (or for a group of disparate patients) than might otherwise be expected when relying upon prior art approaches in these regards.” We don’t see any specific technological problem. Using a “control circuit” to more “quickly find” an approach which, for example, could be done more slowly by hand is not without more by way of detail the type of specific asserted technological improvement that renders claimed subject matter not directed to an abstract idea.

It is true that specific asserted improvements in for example computer capabilities, when claimed, can render claimed subject matter not directed to an abstract idea. *Cf. McRO*, 837 F.3d at 1316 (“When looked at as a whole, claim 1 is directed to a patentable, technological improvement over the existing, manual 3–D animation techniques.”). But, there is insufficient evidence in the record before us that the claimed subject matter reflects any such improvement.

“The ‘abstract idea’ step of the inquiry calls upon us to look at the ‘focus of the claimed advance over the prior art’ to determine if the claim’s ‘character as a whole’ is directed to excluded subject matter.” *Affinity Labs of Texas, LLC v. DirectTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016) (quoting *Elec. Power Grp.*, 830 F.3d at 1353; see also *Enfish*, 822 F.3d at 1335. See also *Ancora Techs., Inc. v. HTC Am., Inc.*, 908 F.3d 1343, 1347 (Fed. Cir. 2018):

We examine the patent’s “‘claimed advance’ to determine whether the claims are directed to an abstract idea.” *Finjan, Inc. v. Blue Coat System, Inc.*, 879 F.3d 1299, 1303 (Fed. Cir. 2018). “In cases involving software innovations, this inquiry often turns on whether the claims focus on ‘the specific asserted improvement in computer capabilities . . . or, instead, on a process that qualifies as an “abstract idea” for which computers are invoked merely as a tool.’” *Id.* (quoting *Enfish*, 822 F.3d at 1335–36); see *BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1285–86 (Fed. Cir. 2018). Computers are improved not only through changes in hardware; “[s]oftware can make non-abstract improvements to computer technology” *Enfish*, 822 F.3d at 1335; see *Finjan*, 879 F.3d at 1304. We have several times held claims to pass muster under *Alice* step one when sufficiently focused on such improvements.

The Specification’s description of the problem and solution shows the advance over the prior art by the claimed invention is in developing certain care paths for a given patient, not on any improvement in computer functionality. According to the Specification, the invention “facilitate[s] identification of a particular care path from amongst a plurality of developed candidate care paths.” Spec., para. 52.

We have carefully reviewed the Specification but can find no disclosure of a technical improvement. It is true that in various places in the Specification various “improvements” are mentioned. Notwithstanding many of the discussed improvements depend on using computing devices that the claimed method is not limited to, there is no suggestion in the Specification that the subject matter as broadly as claimed means to solve a problem in the computer arts as the Appellant suggests. The heart of the invention, as claimed, is in selecting a treatment approach, albeit via a “control circuit” which “control circuit” is plainly generic and does not

change upon a treatment's selection. *Cf. Intellectual Ventures I LLC v. Erie Indemnity Co.*, 850 F.3d 1315, 1328 (Fed. Cir. 2017) (“[T]he heart of the claimed invention lies in creating and using an index to search for and retrieve data . . . an abstract concept.”) Rather, it is the “control circuit” which facilitates the selection.

The Specification attributes no special meaning to “developing,” “determining,” “automatically halting,” “continuing to develop,” and “facilitating selection” with respect to the “control circuit” (claim 1). In our view, consistent with the Specification, these are common processing functions one of ordinary skill in the art at the time of the invention would have associated with generic “control circuits.” *Cf. OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015):

Beyond the abstract idea of offer-based price optimization, the claims merely recite “well-understood, routine conventional activit[ies],” either by requiring conventional computer activities or routine data-gathering steps. *Alice*, 134 S. Ct. at 2359 (quoting *Mayo*, 132 S.Ct. at 1294) (alterations in original). . . . For example, claim 1 recites “sending a first set of electronic messages over a network to devices,” the devices being “programmed to communicate,” storing test results in a “machine-readable medium,” and “using a computerized system . . . to automatically determine” an estimated outcome and setting a price. Just as in *Alice*, “all of these computer functions are ‘well-understood, routine, conventional activit[ies]’ previously known to the industry.” *Alice*, 134 S.Ct. at 2359 (quoting *Mayo*, 132 S.Ct. at 1294) (alterations in original); *see also buySAFE[, Inc. v. Google, Inc.]*, 765 F.3d [1350,] 1355 [(Fed. Cir. 2014)] (“That a computer receives and sends the information over a network—with no further specification—is not even arguably inventive.”).

Claim 1 describes a method whereby various types of information are “develop[ed],” “determin[ed],” “automatically halt[ed],” “continu[ed] to develop,” and a selection “facilitate[ed]” “by a control circuit.” As we have indicated the “control circuit” (claim 1) is generic and conventional. The broadly claimed generic “control circuits” distinguishes over other generic control circuits by the certain types of information that are processed. But, that informational content difference alone is not patentably consequential. This is so because “[c]laim limitations directed to the content of information and lacking a requisite functional relationship are not entitled to patentable weight because such information is not patent eligible subject matter under 35 U.S.C. § 101.” *Praxair Distribution, Inc. v. Mallinckrodt Hospital Products IP Ltd.*, 890 F.3d 1024, 1032 (Fed. Cir. 2018).

The “developing,” “determining,” “automatically halting,” “continuing to develop,” and “facilitating selection” as claimed does not ask the “control circuit” (claim 1) to go beyond its common functions. While instructions a control circuit must follow to invoke the performance of certain steps can be patentably significant (*see Enfish*, and *Ancora*), here the instant record does not sufficiently support the view that the recited steps are caused to be performed by control–circuit instructions having a non–generic effect on the “control circuit” (claim 1). To the contrary, the record supports viewing the recitation of a “control circuit” (claim 1) amounts to a mere instruction to implement the recited scheme on a generic control circuit. *Cf. Alice*, 573 U.S. at 225–26 (“Instead, the claims at issue amount to ‘nothing significantly more’ than an instruction to apply the abstract idea of intermediated settlement using some unspecified, generic computer.”)

Rather than being directed to any specific asserted improvement in technological capabilities, the record supports the view that the claimed subject matter is directed to using a generic control circuit to select a treatment approach.¹¹

The claim provides no additional structural details¹² that would distinguish the “control circuit” (claim 1) from that which was well known as being generic at the time the application was filed.

Rather, claim 1 describes it functionally, by describing certain resulting steps; that is, “developing,” “determining,” “automatically halting,” “continuing to develop,” and “facilitating selection” various types of information. But, in that regard, there is insufficient evidence showing they affect the “control circuit” (claim 1) in any structural way.

Accordingly, within the meaning of the 2019 Revised 101 Guidance, we find there is no integration into a practical application.

¹¹ See the 2019 Revised 101 Guidance at 55:

The courts have also identified examples in which a judicial exception has not been integrated into a practical application:

- An additional element merely recites the words “apply it” (or an equivalent) with the judicial exception, or merely includes instructions to implement an abstract idea on a computer, or merely uses a computer as a tool to perform an abstract idea;

¹² Cf. *Move, Inc. v. Real Estate Alliance Ltd.*, 721 F. App’x 950, 954 (Fed. Cir. 2018) (Nonprecedential) (“Claim 1 is aspirational in nature and devoid of any implementation details or technical description that would permit us to conclude that the claim as a whole is directed to something other than the abstract idea identified by the district court.”)

We have considered all the Appellant’s arguments challenging the Examiner’s determination under step one of the *Alice* framework and find them unpersuasive. For the foregoing reasons, the record supports the Examiner’s determination that claim 1 is directed to an abstract idea.

*Alice step two – Does the Claim Provide an Inventive Concept?*¹³

Step two 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.’” *Alice*, 573 U.S. at 217–18 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 73 (2012)).

In that regard, the Examiner determined that:

The claim does not include additional elements that are sufficient to amount 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. The claim recites the additional limitations of one or more control circuit that is recited at a high level of generality and is recited as performing generic computer functions routinely used in computer applications. Generic computer components recited as performing generic computer functions that are well-understood, routine, and conventional activities amount to no more than implementing the abstract idea with a computerized system. Thus, taken alone, the additional elements do not amount to significantly more than the

¹³ This corresponds to Step 2B of the 2019 Revised 101 Guidance page 56 (“[I]f a claim has been determined to be directed to a judicial exception under revised Step 2A, examiners should then evaluate the additional elements individually and in combination under Step 2B to determine whether they provide an inventive concept (*i.e.*, whether the additional elements amount to significantly more than the exception itself).”).

above-identified judicial exception. Looking at the limitations as an ordered combination adds nothing that is not already present when looking at the elements taken individually. There is no indication that the combination of elements improves the functioning of a computer or improves any other technology. Their collective functions merely provide conventional computer implementation. The claim does not amount to significantly more than the underlying abstract idea of collecting information, analyzing it, and displaying certain results of the collection and analysis as seen in *Electric Power Group*.

Final Act. 3–4.

We agree with the Examiner.

We addressed Appellant’s argument as to purported specific asserted improvements in technology under step one of the *Alice* framework. This is consistent with the case law. *See Ancora*, 908 F.3d at 1347 (“We have several times held claims to pass muster under *Alice* step one when sufficiently focused on such improvements.”). Such an argument can also challenge a determination under step two of the *Alice* framework. *See buySAFE*, 765 F.3d at 1354–55. “[R]ecent Federal Circuit jurisprudence has indicated that eligible subject matter can often be identified either at the first or the second step of the *Alice/Mayo* [framework].” 2019 Revised 101 Guidance at 53; *see also id.* n.17.

Be that as it may, we are unpersuaded that claim 1 presents an element or combination of elements indicative of a specific asserted improvement in technological capabilities, thereby rendering the claimed subject matter sufficient to ensure that the patent in practice amounts to significantly more than a patent upon using a generic control circuit to select a treatment approach itself.

We have reviewed the Specification and, as explained above, we can find no suggestion of any technical improvements associated with the performance of the recited steps. The Specification is focused on determining a care path, not on the “control circuit” (claim 1). Rather than focusing on said “control circuit,” the Specification focuses on “developing,” “determining,” “automatically halting,” “continuing to develop,” and “facilitating selection” of various types of information that will lead to the identifying of a particular care path, the “control circuit” (claim 1) acting merely as a conduit for practicing that scheme. *Cf. In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 612 (Fed. Cir. 2016) (“Put differently, the telephone unit itself is merely a conduit for the abstract idea of classifying an image and storing the image based on its classification. Indeed, the specification notes that it ‘is known’ that ‘cellular telephones may be utilized for image transmission,’ [U.S. Patent 6,038,295,] col. 1 ll. 31–34, and existing telephone systems could transmit pictures, audio, and motion pictures and also had ‘graphical annotation capability,’” *id.* at col. 1 ll. 52–59.”)

We are unpersuaded that the record supports interpreting the steps recited in the claim as resulting in a technological improvement as the Appellant has argued. As discussed above, the “control circuit” (claim 1) was notoriously well-known, and the recited steps they perform ask nothing more of them than to use them for their commonly-associated information-processing functions. Much like the “data storage unit” and “computer, coupled to said storage unit” in the claims of *Alice* (U.S. Patent 7,149,720, claim 1), “the claims here do [not do] more than simply instruct the

practitioner to implement the abstract idea [. . .] on a generic computer.” *Alice*, 573 U.S. at 225. *See also Bancorp Servs.*, 687 F.3d at 1278 (“[T]he use of a computer in an otherwise patent-ineligible process for no more than its most basic function—making calculations or computations—fails to circumvent the prohibition against patenting abstract ideas and mental processes.”).

For the reasons discussed above, we are unpersuaded that the record supports interpreting the steps recited in the claim as yielding any improvement in technology.

We cited the Specification to show that it discloses that the claimed “control circuit” (claim 1) is conventional. In doing so, we have followed “Changes in Examination Procedure Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (*Berkheimer v. HP, Inc.*[], 881 F.3d 1360 (Fed. Cir. 2018)],” USPTO Memorandum, Robert W. Bahr, Deputy Commissioner For Patent Examination Policy, April 19, 2018 (the “*Berkheimer* Memo”).

The court in *Berkheimer* held that “[t]he patent eligibility inquiry may contain underlying issues of fact.” *Berkheimer*, 881 F.3d at 1365 (*quoting Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1325 (Fed. Cir. 2016) (“The § 101 inquiry ‘*may* contain underlying factual issues.”)). But, the court also held that “[w]hen there is *no genuine issue of material fact* regarding whether the claim element or claimed combination is well-understood, routine, [and] conventional to a skilled artisan in the relevant field, this issue can be decided on summary judgment as a matter of

law.” *Id.* at 1368 (emphasis added). This qualification has been subsequently reiterated.

If there is a genuine dispute of material fact, Rule 56 requires that summary judgment be denied. In *Berkheimer*, there was such a genuine dispute for claims 4–7, but not for claims 1–3 and 9. . . . [I]n accordance with *Alice*, we have repeatedly recognized the absence of a genuine dispute as to eligibility for the many claims that have been defended as involving an inventive concept based merely on the idea of using existing computers or the Internet to carry out conventional processes, with no alteration of computer functionality.

Berkheimer v. HP Inc., 890 F.3d 1369, 1371–73 (Fed. Cir. 2018) (Order, On Petition for rehearing en banc, May 31, 2018); *see also Aatrix Software, Inc. v. Green Shades Software, Inc.*, 890 F.3d 1354, 1368 (Fed. Cir. 2018) (“A factual allegation or dispute should not automatically take the determination out of the court’s hands; rather, there needs to be justification for why additional evidence must be considered—the default being a legal determination.”). Here, the Specification indisputably shows the claimed “control circuit” (claim 1) was conventional at the time of filing. *See., e.g., Spec.*, paras. 19–21. Accordingly, no genuine issue of material fact exists as to the well-understood, routine, or conventional nature of the claimed “control circuit” (claim 1) as claimed.

No other persuasive arguments having been presented, we conclude that no error has been committed in the determination under *Alice* step two that claim 1 does not include an element or combination of elements circumscribing the patent-ineligible concept it is directed to so as to transform the concept into an inventive application.

We have considered all of the Appellant’s remaining arguments and find them unpersuasive.

Accordingly, because we are not persuaded as to error in the determinations that representative claim 1 and claims 3–6, and 8–12, which stand or fall with claim 1, are directed to an abstract idea and do not present an “inventive concept,” we sustain the Examiner’s conclusion that they are directed to patent-ineligible subject matter for being judicially-excepted from 35 U.S.C. § 101. *Cf. LendingTree, LLC v. Zillow, Inc.*, 656 F. App’x 991, 997 (Fed. Cir. 2016) (“We have considered all of LendingTree’s remaining arguments and have found them unpersuasive. Accordingly, because the asserted claims of the patents in suit are directed to an abstract idea and do not present an ‘inventive concept,’ we hold that they are directed to ineligible subject matter under 35 U.S.C. § 101.”); *see, e.g., OIP Techs.*, 788 F.3d at 1364; *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1098 (Fed. Cir. 2016).

The rejection of claims 1, 3–6, and 8–12 under 35 U.S.C. § 103(a) as being unpatentable over Haider and Avinash.

We agree with Appellant that “Haider’s teachings are silent as to whether two or more of these care paths are developed ‘in parallel,’ where ‘in parallel’ is defined in our specification to mean working on a number of different care paths such that, for at least some instant in time, such development has begun but has not yet completed in more than one care path.” Appeal Br. 17. It appears the Examiner is relying on the disclosure at paragraph 23 of Haider. *See* Answer 5 (“Paragraph 23 teaches wherein strategies may include ‘parallel processing’.”) But the parallel processing

recited in that passage is an example of a possible data processing strategy that may be employed. It does not describe “developing, *in parallel*, care paths for at least one corresponding patient” as claimed. Accordingly, a prima facie case of obviousness for the subject matter set forth in sole independent claim 1 and claims 3–6, and 8–12 depending therefrom has not been set out in the first instance.

CONCLUSION

The decision of the Examiner to reject claims 1, 3–6, and 8–12 is affirmed.

More specifically:

The rejection of claims 1, 3–6, and 8–12 under 35 U.S.C. § 101 as attempting to claim judicially-excepted subject matter is affirmed.

The rejection of claims 1, 3–6, and 8–12 under 35 U.S.C. § 103(a) as being unpatentable over Haider and Avinash is reversed.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 3–6, 8–12	§ 101	Eligibility	1, 3–6, 8–12	
1, 3–6, 8–12	§ 103	Haider, Avinash		1, 3–6, 8–12
Overall Outcome			1, 3–6, 8–12	

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TIME PERIOD FOR RESPONSE

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. § 1.136(a)(1)(iv).

AFFIRMED