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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

CAVE CONSULTING GROUP, INC.,

Plaintiff,

v.

TRUVEN HEALTH ANALYTICS INC., et
al.,

Defendants.

Case No. [15-cv-02177-SI](#)

**ORDER GRANTING DEFENDANT'S
MOTION FOR SUMMARY JUDGMENT
OF INVALIDITY UNDER 35 U.S.C.
§ 101, DENYING PLAINTIFF'S CROSS-
MOTION, AND DENYING OTHER
PENDING MOTIONS AS MOOT**

Re: Dkt. Nos. 260, 261, 262, 315

On October 11, 2017, the Court held a hearing on the parties' cross-motions for summary judgment under 35 U.S.C. § 101. After consideration of the parties' briefing and arguments of counsel, the Court GRANTS defendant's motion for summary judgment, DENIES plaintiff's motion for summary judgment, and DENIES the other pending motions as moot.

BACKGROUND

On May 14, 2015, plaintiff Cave Consulting Group, Inc. ("CCGroup") filed this lawsuit alleging that defendant Truven Health Analytics Inc. ("Truven") infringes U.S. Patent No. 8,768,726 ("the '726 patent"), titled "Method, System, and Computer Program Product for Physician Efficiency Measurement and Patient Health Risk Stratification Utilizing Variable Windows for Episode Creation," by making, importing, using, selling, and/or offering for sale its physician efficiency measurement software and services.¹ The asserted patent claims priority to a

¹ CCGroup's original complaint also alleged infringement of a second patent, U.S. Patent No. 8,340,981 ("the '981 patent"), that shared the same title and written description. CCGroup later withdrew its claims regarding the '981 with prejudice and subject to a covenant not to sue Truven on the existing claims of the '981 patent.

The '981 patent is the subject of a lawsuit currently pending in the Eastern District of

1 patent application filed on March 5, 2004, that issued as U.S. Patent No. 7,739,126 (the “‘126
2 patent”).²

3 CCGroup is a healthcare consulting company in San Mateo, California, and it owns patents
4 on software methods and systems that, among other things, measure the efficiency of healthcare
5 providers. CCGroup licenses software based on this technology to health management
6 organizations, health insurance companies, and other providers of healthcare goods and services.
7 Truven is a Delaware corporation that sells two accused software products, Advantage Suite and
8 the Physician Performance Assessment module of Advantage Suite. CCGroup alleges that these
9 products infringe independent claim 1 and dependent claims 2-5, 9 and 10 of the ‘726 patent.

10 The ‘726 patent “relates broadly to management of medical information. More
11 specifically, the present invention relates to management of medical information to perform and
12 report measurements of physician efficiency.” ‘726 Patent at 1:28-31. The abstract of the ‘726
13 patent states,

14 A method for measuring physician efficiency and patient health risk stratification is
15 disclosed. Episodes of care are formed from medical claims data and an output
16 process is performed. Physicians are assigned to report groups, and eligible
17 physicians and episode assignments are determined. Condition-specific episode
18 statistics and weighted episode statistics are calculated, from which physician
19 efficiency scores are determined.

20 ‘726 Patent, Abstract. The specification criticizes the prior art by stating, “[r]ecent evidence has
21 demonstrated that leading physician efficiency measurement systems have only about 15-30%
22 agreement across measurement systems[, which] means that when one system ranks a physician as
23 inefficient, only about 15-30% of the other systems ranked the same physician as inefficient.” *Id.*
24 at 1:45-50. The specification identifies ten common physician or physician group efficiency
25 measurement errors present in most existing physician efficiency measurement systems, and the

26 Texas. *Cave Consulting Group, Inc. v. Health Care Serv. Corp.*, No. 6:17-cv-00344-RWS-JDL
27 (E.D. Tex.). In that case, the defendant has moved to dismiss the complaint based on 35 U.S.C.
28 § 101; that motion is pending.

² The ‘126 patent is the subject of a lawsuit that is currently on appeal before the Federal
Circuit. *Cave Consulting Group, LLC v. OptumInsight, Inc.*, 5:11-cv-00469 EJD (N.D. Cal.), Fed.
Cir. Nos. 17-01093 & 17-01060. The issue of invalidity under 35 U.S.C. § 101 was not raised in
that case.

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'726 patent purports to solve these problems by using methodologies that decrease variability in efficiency scores to provide more reliable measurements for use by decision-makers. *Id.* at 1:62-7:15.

The specification is more than 60 pages long, and provides detailed descriptions of embodiments of the invention. The patent states that “[a]n embodiment of the present invention forms longitudinal episodes of care for a patient using medical claims data. A longitudinal episode of care is defined as all services linked together that are used to treat a patient’s medical condition within a specified period of time, including all ambulatory, outpatient, inpatient, and prescription drug experience.” ‘726 Patent at 45:30-36. The specification discusses how episodes of care are formed, including the information to be included and the method of determining and assigning the time period for episodes of care. *Id.* at 45:30-48:55; 51:37-52:27. The methods involve a number of steps, including assigning episodes of care to physicians, forming “report groups” for comparison, selecting “predefined sets” of medical conditions to be evaluated, and adjusting for physician case mix. *See e.g., id.* at 7:18-45, 65:59-66:36, 70:54-86:40, 91:48-93:67.

Figure 2 of the patent “is a flowchart that illustrates, in flow diagram form, a sequence of acts executed in accordance with embodiments of the present invention.” *Id.* at 9:43-46, Fig. 2.

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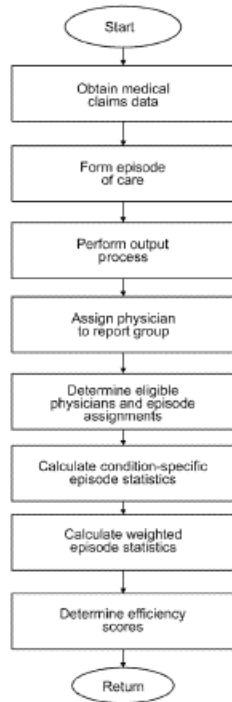


FIG. 2

CCGroup alleges that Truven directly infringes independent claim 1 and indirectly infringes dependent claims 2-5, 9 and 10 of the ‘726 patent. Independent claim 1 is representative of the asserted claims for purposes of the Court’s analysis³:

1. A method implemented on a computer system of determining physician efficiency, the method comprising:
 - obtaining medical claims data stored in a non-transitory computer readable medium on the computer system;

³ In their briefing, the parties focus solely on the validity of independent claim 1, and CCGroup does not advance any separate arguments regarding the validity of dependent claims 2-5, 9 or 10 if claim 1 is invalid. Dependent claims 2-5, 9 and 10 are all method claims and recite particular types of “predefined set[s] of medical conditions” to be evaluated in the “calculating” step of claim 1. For example, dependent claim 2 states, “The method of claim 1, wherein: the predefined set of medical conditions for a specific specialty type consists of no more than 150 unique medical conditions.” *Id.* at 110:35-38. The Court finds that the limitations added in the asserted dependent claims do not change the Court’s § 101 validity analysis. *See Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass’n*, 776 F.3d 1343, 1348 (Fed. Cir. 2014) (affirming district court’s determination that a “representative” claim is one that is “substantially similar and linked to the same abstract idea.”).

1 performing patient analysis using said obtained medical claims data to
perform episodes of care utilizing the computer system;

2 assigning complete (non-partial) episodes of care to physicians utilizing an
3 assignment rule that allows assignment of an episode of care to more than one
physician;

4 assigning at least one physician to a report group based on geographic area
5 designation utilizing the computer system, each physician assigned to no more than
one report group;

6 determining eligible physicians and episode of care assignments utilizing
7 the computer system;

8 calculating condition-specific episode of care statistics utilizing the
computer system;

9 calculating weighted episode of care statistics across medical conditions
10 utilizing a predefined set of medical conditions for a specific specialty type
utilizing the computer system; and

11 determining efficiency scores for physicians from said calculated condition-
12 specific episode of care statistics and said weighted episode of care statistics
calculated across medical conditions utilizing the computer system.

13 *Id.* at 110:8-34.

14 **PROCEDURAL HISTORY**

15 **I. Claim construction**

16 The Court held claim construction hearings on April 11, 2016 and April 19, 2017.⁴ The
17 Court adopted CCGroup’s proposed construction of “calculating weighted episode of care
18 statistics across medical conditions for a specialty type utilizing a predefined set of medical
19 conditions for a specific specialty type,” as meaning “calculating cost or length of care statistics
20 for a group of medical conditions, using the relative importance of each condition to others of the
21 group, using only medical conditions within a set defined in advance of processing for a specific
22 specialty type.” Dkt. No. 77 at 7-13. The parties agreed to construe “episodes of care” as “a
23 group of all healthcare services provided to a patient for the diagnosis, treatment, and aftercare of
24 a specific medical condition within a time frame of interest.” Dkt. No. 56 at 2:3-7. The Court
25

26
27
28 ⁴ The Court held a supplemental claim construction hearing in April 2017 after CCGroup
filed an amended complaint alleging new indirect infringement allegations regarding dependent
claims 2-5, 9 and 10.

1 held that a person of ordinary skill in the art would not interpret a “complete” episode of care to
2 require the patient to be enrolled for the entire study period. Dkt. No. 206 at 5-8. The Court
3 construed “consists of a subset of most prevalent medical conditions related to that specialty type”
4 according to plain and ordinary meaning. *Id.* at 8-12.

5

6 **II. Prior motions on 101 invalidity**

7 On December 14, 2015, Truven moved for judgment on the pleadings on the ground that
8 the asserted patents were invalid under 35 U.S.C. § 101. The Court denied the motion without
9 prejudice to renewal after claim construction.

10 On October 13, 2016, Truven moved for summary judgment of invalidity under 35 U.S.C.
11 § 101. In opposition, CCGroup argued that Truven had failed to meet its burden to show
12 invalidity by clear and convincing evidence. In an order filed December 22, 2016, the Court
13 denied Truven’s motion for summary judgment. The Court stated,

14 Truven did not submit any evidence in support of its contention that the claim
15 limitations are well-understood, routine or conventional activities, or that the
16 asserted claims preempt the concept of calculating physician efficiency. In
17 contrast, Cave Consulting Group submitted a declaration from its expert, Dr.
18 Bergeron, who states that the asserted claims improve a technological process by
19 creating a set of specific rules for measuring physician efficiency. Dr. Bergeron
20 also states that the asserted claims do not preempt the idea of collecting and
21 organizing medical claims data to calculate physician efficiency, and he provides
22 specific alternative examples. Truven did not submit any comparable
23 countervailing evidence. Although the Court finds that Truven’s arguments are not
24 without force, on this record the Court concludes that Truven has not met its burden
25 to warrant summary judgment.

26 Dkt. No. 136 at 1:22-2:3.

27 In August and September of 2017, the parties filed cross-motions for summary judgment
28 regarding validity under 35 U.S.C. § 101, as well as motions for summary judgment or partial
summary judgment regarding infringement and Truven’s other invalidity defenses, and motions to
strike expert testimony.

1 **DISCUSSION**

2 Section 101 of the Patent Act provides:

3 Whoever invents or discovers any new and useful ... composition of matter, or any
4 new and useful improvement thereof, may obtain a patent therefor, subject to the
conditions and requirements of this title.

5 35 U.S.C. § 101. The Supreme Court “has long held that this provision contains an important
6 implicit exception. ‘[L]aws of nature, natural phenomena, and abstract ideas’ are not patentable.”
7 *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70 (2012) (quoting *Diamond v.*
8 *Diehr*, 450 U.S. 175, 185 (1981)).

9 “The Supreme Court, setting up a two-stage framework, has held that a claim falls outside
10 § 101 where (1) it is ‘directed to’ a patent-ineligible concept, *i.e.*, a law of nature, natural
11 phenomenon, or abstract idea, and (2), if so, the particular elements of the claim, considered ‘both
12 individually and as an ordered combination,’ do not add enough to ‘transform the nature of the
13 claim into a patent-eligible application.’” *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350,
14 1353 (Fed. Cir. 2016) (quoting *Alice Corp. v. CLS Bank Int’l*, ___ U.S. ___, 134 S.Ct. 2347, 2355
15 (2014) (internal quotation marks omitted). “Although the two steps in the *Alice* framework
16 involve overlapping scrutiny of the content of the claims, the Supreme Court’s formulation makes
17 clear that the first-stage filter is a meaningful one, sometimes ending the § 101 inquiry.” *Visual*
18 *Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253, 1258 (Fed. Cir. 2017) (internal quotation marks
19 and citation omitted). “[W]e have described the first-stage inquiry as looking at the focus of the
20 claims, their character as a whole, and the second-stage inquiry (where reached) as looking more
21 precisely at what the claim elements add—specifically, whether, in the Supreme Court’s terms,
22 they identify an ‘inventive concept’ in the application of the ineligible matter to which (by
23 assumption at stage two) the claim is directed.” *Elec. Power Grp.*, 830 F.3d at 1353 (internal
24 quotation marks omitted).

25 Before turning to the § 101 invalidity analysis, the Court addresses some overarching
26 issues regarding the parties’ cross-motions. CCGroup contends that the Court should enter
27 summary judgment in favor of CCGroup because, *inter alia*, nothing has changed since the Court
28 last evaluated this issue, and Truven still does not have clear and convincing evidence showing

1 that the asserted claims pose a risk of preemption or that the claims are conventional. (Truven
2 disputes CCGroup’s assertions as legally and factually incorrect). CCGroup is correct that the
3 Court previously denied summary judgment in part because CCGroup had submitted evidence,
4 including an expert declaration and testimony from the inventor, Dr. Cave, regarding preemption
5 and whether the claim limitations disclosed routine, well-understood processes, while Truven had
6 not. The Court’s decision at that time was driven in part by *Alice Corp.*, in which the Supreme
7 Court emphasized that the principle of preemption is the basis for the judicial exceptions to
8 patentability, *see Alice Corp.*, 134 S. Ct. at 2354 (“We have described the concern that drives this
9 exclusionary principle as one of pre-emption”), as well as the unsettled state of the law regarding
10 what factual evidence is relevant to the § 101 inquiry and whether the clear and convincing
11 standard is applicable to § 101 challenges. *See generally In re TLI Comm’cs LLC Patent Litig.*, 87
12 F. Supp. 3d 773, 797 & n.47, n.48 (E.D. Va. 2015) (discussing cases), *aff’d* 823 F.3d 607 (Fed.
13 Cir. 2016).

14 In the intervening time since the Court decided Truven’s first motion for summary
15 judgment of invalidity, the body of case law under 35 U.S.C. § 101 has grown considerably, and
16 the Federal Circuit has clarified a number of questions relevant to the Court’s analysis. First,
17 while it is still unclear whether the clear and convincing standard applies to the § 101 analysis
18 (and if so, how that standard is to be applied), courts have generally determined whether a patent
19 is directed to an abstract idea by “compar[ing] [the] claims at issue to those claims already found
20 to be directed to an abstract idea in previous cases,” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d
21 1327, 1334 (Fed. Cir. 2016), rather than by considering evidence. Second, the Federal Circuit
22 recently held that “where a patent’s claims are deemed only to disclose patent ineligible subject
23 matter under the *Alice* framework, preemption concerns are fully addressed and made moot.”
24 *Two-Way Media Ltd. v. Comcast Cable Communications, LLC*, 874 F.3d 1329, 1339 (Fed. Cir.
25 2017); *see also Ariosa Diagnostics Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015)
26 (“While preemption may signal patent ineligible subject matter, the absence of complete
27 preemption does not demonstrate patent eligibility.”). Third, the Federal Circuit has held that a
28 patentee’s evidence regarding novelty and nonobviousness (in the form of expert report excerpts,

1 expert trial testimony, inventor trial testimony, and a press release) was not relevant to
2 determining whether a patent possessed an inventive concept.⁵ *See Two-Way Media*, 874 F.3d at
3 1336, 1139-40 (affirming district court’s exclusion of patentee’s evidence relating to purported
4 technological innovations of its invention because “that material was relevant to a novelty and
5 obviousness analysis, and not whether the claims were directed to eligible subject matter.
6 Eligibility and novelty are separate inquiries.”).

7 With this framework in mind, the Court turns to the § 101 analysis.

8
9 **I. *Alice* step one**

10 The Federal Circuit has held that “information as such is an intangible. Accordingly, we
11 have treated collecting information, including when limited to particular content (which does not
12 change its character as information), as within the realm of abstract ideas.” *Elec. Power Grp.*, 830
13 F.3d at 1353 (collecting cases; citations excluded). “In a similar vein, we have treated analyzing
14 information by steps people go through in their minds, or by mathematical algorithms, without
15 more, as essentially mental processes within the abstract-idea category.” *Id.* at 1354. “And we
16 have recognized that merely presenting the results of abstract processes of collecting and
17 analyzing information, without more (such as identifying a particular tool for presentation), is
18 abstract as an ancillary part of such collection and analysis.” *Id.*; *see also Digitech Image Techs.,*
19 *LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344, 1351 (Fed. Cir. 2014) (“Without additional
20 limitations, a process that employs mathematical algorithms to manipulate existing information to
21 generate additional information is not patent eligible.”).

22 In *Electric Power Group, LLC*, the Federal Circuit analyzed a claim for a “method of
23 detecting events on an interconnected electric power grid in real time over a wide area and
24 automatically analyzing the events on the interconnected electric power grid.” 830 F.3d at 1351.

25
26 _____
27 ⁵ The Court previously denied summary judgment based on, *inter alia*, Truven’s failure to
28 submit expert or other evidence regarding whether the asserted claims possessed an inventive
concept (in the form of evidence regarding novelty and nonobviousness). Based upon the current
state of the law, the Court now finds that such evidence is irrelevant to the Court’s inquiry, and
thus the Court will not consider the evidence submitted by the parties on those issues.

1 The method included (1) receiving a plurality of data streams collected in real-time from
2 geographically distinct points over an electric power grid, (2) receiving data from other power
3 sources on the electric power grid, (3) receiving data from non-grid data sources, (4) detecting and
4 analyzing events in real time based on an analysis of the measurements in the received data, (5)
5 displaying the results of the diagnosis of the events at issue and other information from the data,
6 (6) updating in real time the information that is collected, and (7) combining the data into a
7 composite indicator of power grid reliability. *Id.* at 1351-52.⁶ The Federal Circuit found that the

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9 ⁶ Representative claim 12 of the patent-in-suit in *Electric Power Group* read:

10 12. A method of detecting events on an interconnected electric power grid in real
11 time over a wide area and automatically analyzing the events on the interconnected
12 electric power grid, the method comprising:

13 receiving a plurality of data streams, each of the data streams comprising sub-
14 second, time stamped synchronized phasor measurements wherein the
15 measurements in each stream are collected in real time at geographically distinct
16 points over the wide area of the interconnected electric power grid, the wide area
17 comprising at least two elements from among control areas, transmission
18 companies, utilities, regional reliability coordinators, and reliability jurisdictions;

19 receiving data from other power system data sources, the other power system data
20 sources comprising at least one of transmission maps, power plant locations,
21 EMS/SCADA systems;

22 receiving data from a plurality of non-grid data sources;

23 detecting and analyzing events in real-time from the plurality of data streams from
24 the wide area based on at least one of limits, sensitivities and rates of change for
25 one or more measurements from the data streams and dynamic stability metrics
26 derived from analysis of the measurements from the data streams including at least
27 one of frequency instability, voltages, power flows, phase angles, damping, and
28 oscillation modes, derived from the phasor measurements and the other power
system data sources in which the metrics are indicative of events, grid stress, and/or
grid instability, over the wide area;

displaying the event analysis results and diagnoses of events and associated ones of
the metrics from different categories of data and the derived metrics in visuals,
tables, charts, or combinations thereof, the data comprising at least one of
monitoring data, tracking data, historical data, prediction data, and summary data;

displaying concurrent visualization of measurements from the data streams and the
dynamic stability metrics directed to the wide area of the interconnected electric
power grid;

accumulating and updating the measurements from the data streams and the
dynamic stability metrics, grid data, and non-grid data in real time as to wide area
and local area portions of the interconnected electric power grid; and

1 focus of the claims was on “collecting information, analyzing it, and displaying certain results of
 2 the collection and analysis.” *Id.* at 1353. Other recent Federal Circuit cases have similarly held
 3 that patents directed at collecting and analyzing data are within the abstract-idea category. *See*
 4 *e.g.*, *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1339-40 (Fed. Cir.
 5 2017) (patent concerning system and method for retrieving, manipulating, updating, creating, and
 6 displaying extensible markup language (XML) documents was directed at abstract idea of
 7 “collecting, displaying, and manipulating data”); *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839
 8 F.3d 1089, 1092, 1094 (Fed. Cir. 2016) (patent disclosing systems and methods to detect fraud and
 9 misuse of patient’s health information was directed to the abstract idea of “collecting and
 10 analyzing information to detect misuse and notifying a user when misuse is detected.”); *see also In*
 11 *re Salwan*, 681 Fed. App’x 938, 939-41 (Fed. Cir. 2017) (unpublished) (invalidating method
 12 claims for transferring patient health information among healthcare users or patients, where claims
 13 recited, *inter alia*, “receiving” and “storing” information and “selectively retrieving stored EMR
 14 information, [and] generating one or more healthcare reports” because “the claims are directed to
 15 the abstract idea of billing insurance companies and organizing patient health information”).

16 In contrast, the Federal Circuit has held that the following claims were patent-eligible
 17 under *Alice* step one: (1) claims directed to an improved computer memory system, *Visual*
 18 *Memory*, 867 F.3d at 1259-60; (2) claims disclosing an inertial tracking system for tracking the
 19 motion of an object relative to a moving platform, *Thales Visionix Inc. v. United States*, 850 F.3d
 20 1343, 1348-49 (Fed. Cir. 2017); (3) claims directed at “a specific asserted improvement in
 21 computer animation, *i.e.*, the automatic use of rules of a particular type” that allowed “computers
 22 to produce accurate and realistic lip synchronization and facial expressions in animated
 23 characters.” *McRO, Inc. v. Bandai Namco Games America, Inc.*, 837 F.3d 1299, 1313, 1314 (Fed.

24
 25 deriving a composite indicator of reliability that is an indicator of power grid
 26 vulnerability and is derived from a combination of one or more real time
 27 measurements or computations of measurements from the data streams and the
 28 dynamic stability metrics covering the wide area as well as non-power grid data
 received from the non-grid data source.

Id. at 1351-52.

1 Cir. 2016); and (4) claims reciting a self-referential table for a computer database, *Enfish*, 822
 2 F.3d at 1336. Further, “[w]hile generalized steps to be performed on a computer using
 3 conventional computer activity are abstract, not all claims in all software patents are necessarily
 4 directed to an abstract idea.” *RecogniCorp, LLC v. Nintendo Co. Ltd.*, 855 F.3d 1322, 1326 (Fed.
 5 Cir. 2017) (internal citations and quotation marks omitted). “For example, we have held that
 6 software patent claims satisfy *Alice* step one when they are ‘directed to a specific implementation
 7 of a solution to a problem in the software arts,’ such as an improvement in the functioning of a
 8 computer.” *Id.* (quoting *Enfish*, 822 F.3d at 1338-39).

9 The Court concludes that under step one, the asserted claims of the ‘726 patent are directed
 10 to the abstract idea of collecting, organizing and analyzing medical claims data to calculate
 11 physician efficiency scores. Claim 1 broadly recites the steps of “obtaining medical claims data,”
 12 “performing patient analysis using said obtained medical claims data to form episodes of care
 13 using the computer system,” “assigning” episodes of care to physicians and “assigning” physicians
 14 to geographic report groups, “determining” eligible physicians and episode of care assignments,
 15 “calculating” physician efficiency statistics and displaying physician efficiency scores. This
 16 language is similar to, and arguably much broader than, the claim language in *Electric Power*
 17 *Group*. In addition, similar to *Electric Power Group*, “[t]hough lengthy and numerous, the claims
 18 do not go beyond requiring the collection, analysis, and display of available information in a
 19 particular field, stating those functions in general terms, without limiting them to technical means
 20 for performing the functions that are arguably an advance over conventional computer and
 21 network technology.” *Elec. Power Grp.*, 830 F.3d at 1351.

22 CCGroup argues that the claims are patent eligible because the patent discloses very
 23 specific rules for improving the technological process of measuring physician efficiency.
 24 CCGroup argues that *McRO* is “directly on point.” In *McRO*, the Federal Circuit analyzed two
 25 patents claiming methods for automatically animating lip synchronization and facial expression of
 26 animated characters. *McRO*, 837 F.3d at 1303.⁷ The court held that the claims were not directed
 27

28 ⁷ The representative claim in *McRO* claimed:

1 to an abstract idea, but instead were directed to “a specific asserted improvement in computer
2 animation, *i.e.*, the automatic use of rules of a particular type.” *Id.* at 1314. The court explained
3 that “the claimed improvement [was] allowing computers to produce ‘accurate and realistic lip
4 synchronization and facial expressions in animated characters’ that previously could only be
5 produced by human animators.” *Id.* at 1313. The court found that “the claims are limited to rules
6 with specific characteristics” and “the claims themselves set out meaningful requirements for the
7 first set of rules: they define[] a morph weight set stream as a function of phoneme sequence and
8 times associated with said phoneme sequence . . . [and] further require ‘applying said first set of
9 rules to each sub-sequence . . . of timed phonemes.’” *Id.* The Federal Circuit continued,

10 Further, the automation goes beyond merely “organizing [existing] information into
11 a new form” or carrying out a fundamental economic practice. [*Digitech Image
12 Tech., LLC v. Elec. for Imaging, Inc.*, 758 F.3d 1344, 1351 (Fed. Cir. 2014); *see
13 also Alice*, 134 S.Ct. at 2356.] The claimed process uses a combined order of
14 specific rules that renders information into a specific format that is then used and
15 applied to create desired results: a sequence of synchronized, animated characters.

16 *Id.* at 1315. The court concluded, “[b]y incorporating the specific features of the rules as claim
17 limitations, claim 1 is limited to a specific process for automatically animating characters using
18 particular information and techniques and does not preempt approaches that use rules of a different
19

20 A method for automatically animating lip synchronization and facial expression of
21 three-dimensional characters comprising:

22 obtaining a first set of rules that define output morph weight set stream as a
23 function of phoneme sequence and time of said phoneme sequence;

24 obtaining a timed data file of phonemes having a plurality of sub-sequences;

25 generating an intermediate stream of output morph weight sets and a plurality of
26 transition parameters between two adjacent morph weight sets by evaluating said
27 plurality of sub-sequences against said first set of rules;

28 generating a final stream of output morph weight sets at a desired frame rate from
29 said intermediate stream of output morph weight sets and said plurality of transition
30 parameters; and

31 applying said final stream of output morph weight sets to a sequence of animated
32 characters to produce lip synchronization and facial expression control of said
33 animated characters.

34 *Id.* at 1307-08.

1 structure or different techniques.” *Id.* at 1316.

2 Here, in contrast, claim 1 does not incorporate “specific features of rules” in any
3 meaningful, limiting way. The Court recognizes that claim 1 discloses some rules, such as
4 forming “episodes of care,” assigning complete (non-partial) episodes of care to physicians using
5 an “assignment rule that allows assignment of an episode of care to more than one physician,” and
6 “calculating weighted episode of care statistics across medical conditions utilizing a predefined set
7 of medical conditions” ‘726 Patent at 110:16-18, 110:27-29. However, to the extent those
8 rules are disclosed in claim 1, they are phrased in extremely broad, generic terms, and they are all
9 directed at the abstract idea of collecting, manipulating, and analyzing medical claims data to
10 calculate physician efficiency scores.

11 The Federal Circuit has held invalid claims that are similarly non-specific and lacking
12 technical detail. In *Secured Mail Solutions LLC v. Universal Wilde, Inc.*, 873 F.3d 905 (Fed. Cir.
13 2017), the Federal Circuit invalidated seven patents claiming methods for using a unique
14 identifier, such as a barcode, on the outside of mail items that a computer could read to
15 communicate information about the mail item’s contents, sender, and recipient. The court held
16 that the patent claims were directed at the abstract idea of communicating information about a
17 mail item by use of a marking:

18 Secured Mail argues that the claims are specifically directed to a sender-
19 generated unique identifier, which improved on the existing process both by
20 reliably identifying the sender of the mail object and by permitting the sender to
21 create a bi-directional communication channel between the sender and recipient of
the mail object. The fact that an identifier can be used to make a process more
efficient, however, does not necessarily render an abstract idea less abstract.

22 The claims of the Intelligent Mail Barcode patents⁸ are not directed to
23 specific details of the barcode or the equipment for generating and processing it.

24 ⁸ The Federal Circuit stated that the following claim was representative of the Intelligent
25 Mail Barcode patents:

26 1. A method of verifying mail identification data, comprising:

27 affixing mail identification data to at least one mail object, said mail identification
28 data comprising a single set of encoded data that includes at least a unique
identifier, sender data, recipient data and shipping method data, wherein said
unique identifier consists of a numeric value assigned by a sender of said at least
one mail object;

1 The claims generically provide for the encoding of various data onto a mail object
2 but do not set out how this is to be performed. The claims state that various
3 identifiers are affixed to a mail object, stored in a database, scanned from the mail
4 object, and retrieved from the database. No special rules or details of the
5 computers, databases, printers, or scanners are recited. *Cf. McRO*, 837 F.3d at
6 1315 (finding patent eligibility where the “claimed process uses a combined order
7 of specific rules that renders information into a specific format that is then used and
8 applied to create desired results”); *Thales*, 850 F.3d at 1349 (finding patent
9 eligibility where the “claims specify a particular configuration of inertial sensors
10 and a particular method of using the raw data from the sensors”).

11 There is no description of how the unique identifier is generated or how a
12 unique identifier is different from a personal name, or return address. Rather, the
13 claim language cited by Secured Mail merely recites that the unique identifier is
14 generated by the sender. The fact that the sender generates a barcode, which itself
15 is not claimed, does not render the idea any less abstract.

16 *Id.* at 910-11; *see also Two-Way Media*, 874 F.3d at 1337 (“Claim 1 recites a method for routing
17 information using result-based functional language. The claim requires the functional results of
18 ‘converting,’ ‘routing,’ ‘controlling,’ ‘monitoring,’ and ‘accumulating records,’ but does not
19 sufficiently describe how to achieve these results in a non-abstract way.”).

20 CCGroup argues that the asserted claims are patent eligible because they can only be
21 performed on a computer due to the sheer volume of data being analyzed and the “astronomical”
22 number of calculations required. CCGroup also argues that the claims require computer
23 technology because each of the asserted claims includes the first limitation of claim 1, which
24 requires “medical claims data stored in a non-transitory computer readable medium” as an input.
25 CCGroup argues that “this requirement cannot be divorced from the underlying methodology
26 because Dr. Cave’s invention relies on the standardized information in electronic claims records
27 and large data sets to function.” Dkt. No. 297-4 at 14. CCGroup, citing its expert Dr. Bergeron’s
28

29 storing at least a verifying portion of said mail identification data;

30 receiving by a computer at least an authenticating portion of said mail identification
31 data from at least one reception device via a network, wherein said authenticating
32 portion of said mail identification data comprises at least said sender data and said
33 shipping method data; and

34 providing by said computer mail verification data via said network when said
35 authenticating portion of said mail identification data corresponds with said
36 verifying portion of said mail identification data.

37 *Id.* at 908.

1 report, argues that the information required by the ‘726 methodology did not exist in medical
2 records prior to the development of electronic claims records, and thus that “it would not have
3 been possible to assemble the information needed to build episodes of care, a necessary step of the
4 invention.” *Id.*

5 The Court is not persuaded by these arguments. As an initial matter, the asserted claims
6 are not defined in terms of the amount of data to be processed or the number of calculations. The
7 claims require the collection, manipulation and analysis of “medical claims data,” and there is no
8 limitation in the claim language regarding the quantity or complexity of the data set. *See Planet*
9 *Bingo, LLC v. VKGS LLC*, 576 Fed. App’x 1005, 1008 (Fed. Cir. 2014) (unpublished) (“Planet
10 Bingo argues that ‘in real world use, literally thousands, if not millions of preselected Bingo
11 numbers are handled by the claimed computer program,’ making it impossible for the invention to
12 be carried out manually. But the claimed inventions do not require as much. At most, the claims
13 require ‘two sets of Bingo numbers,’ ‘a player,’ and ‘a manager.’ We need not, and do not,
14 address whether a claimed invention requiring many transactions might tip the scales of patent
15 eligibility, as the claims fall far short of capturing an invention that necessarily handles
16 ‘thousands, if not millions’ of bingo numbers or players.”) (internal citations omitted); *see also*
17 *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1148-49 (Fed. Cir. 2016) (“Synopsys
18 next argues that even if the Asserted Claims could be performed mentally they would, in practice,
19 be performed on a computer. . . . In support of this argument, counsel for Synopsys during oral
20 argument pointed to the ‘200 pages of code’ attached to the specifications of the Gregory Patents
21 that he contended reveal the “true novelty” of the Asserted Claims. . . . While Synopsys may be
22 correct that the inventions of the Gregory Patents were intended to be used in conjunction with
23 computer-based design tools, the Asserted Claims are not confined to that conception. The § 101
24 inquiry must focus on the language of the Asserted Claims themselves.”); *Intellectual Ventures I*
25 *LLC v. Symantec Corp.*, 838 F.3d 1307, 1318 (Fed. Cir. 2016) (finding claims abstract because
26 “with the exception of generic computer-implemented steps, there is nothing in the claims
27 themselves that foreclose them from being performed by a human, mentally or with pen and
28 paper.”). In addition, as a factual matter, Dr. Cave, the inventor, and John Calvin, CCGroup’s

1 Vice President of Clinical Systems who is responsible for developing CCGroup’s software, both
 2 testified that the claimed method for calculating physician efficiency could be done by hand, albeit
 3 in a time-consuming fashion. *See* Dkt. No. 274-1, Ex. D (Sept. 29, 2016 Cave Depo. at 24:21-
 4 25:3); Ex. E (Jan. 25, 2017 Calvin Depo. at 79:4-9).

5 CCGroup’s argument that the claims are directed to eligible subject matter because they
 6 require “obtaining medical claims data stored in a non-transitory computer readable medium on
 7 the computer system” is tantamount to asserting that the patent is valid because the claimed
 8 method must be performed on a computer. However, the Federal Circuit has repeatedly held that
 9 “[c]laims directed to generalized steps to be performed on a computer using conventional
 10 computer activity are not patent eligible.” *Two-Way Media*, 874 F.3d at 1337 (citing *Internet*
 11 *Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1348-49 (Fed. Cir. 2015)). The fact that the
 12 claim requires the input of electronic medical claims data does not, on its own, mean that the claim
 13 is drawn to a non-abstract idea. There are numerous Federal Circuit cases analyzing internet or
 14 computer software patents in which the claims at issue necessarily required some type of
 15 electronic input, and the courts nevertheless held that the claims were directed at an abstract idea.
 16 *See e.g., Internet Patents*, 790 F.3d at 1349 (holding invalid claim disclosing “computer
 17 system . . . wherein said displaying said dynamically generated online application form set
 18 comprises combining information from a template file and either a database or a conditional merge
 19 file or both to form said dynamically generated online application form set”); *Content Extraction*
 20 *& Transmission LLC*, 776 F.3d at 1347 (holding invalid claims reciting a method of extracting
 21 data from hard copy documents using an automated digitizing unit such as a scanner, recognizing
 22 specific information from the extracted data, and storing that information in a memory); *see also*
 23 *Intellectual Ventures I LLC v. Erie Indemn. Co.*, ___ Fed. App’x ___, 2017 WL 5041460, at *2-3
 24 (Fed. Cir. Nov. 3, 2017) (holding invalid claim reciting “[a] computer-implemented method for
 25 identifying and characterizing stored electronic files, said method comprising: . . . selecting a file
 26 from a plurality of files stored in a computer storage medium . . .”).

27 “[L]imit[ing] the abstract idea to a particular environment,” here a method for calculating
 28 physician efficiency with generic computing technology, “does not make the claims any less

1 abstract for the step 1 analysis.” *In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 611, 613
 2 (Fed. Cir. 2016) (invalidating patent relating to a method and system for taking, transmitting, and
 3 organizing digital images because “[w]hile claim 17 requires concrete, tangible components such
 4 as ‘a telephone unit’ and a ‘server,’ the specification makes clear that the recited physical
 5 components merely provide a generic environment in which to carry out the abstract idea of
 6 classifying and storing digital images in an organized manner.”). Claim 1 is not analogous to
 7 claims “directed to a specific implementation of a solution to a problem in the software arts,”
 8 *Enfish*, 822 F.3d at 1338 (claims were not directed at an abstract idea because they were directed
 9 to a “specific improvement to the way computers operate, embodied in the self-referential table”),
 10 nor is it similar to the claims upheld in *McRO*, which disclosed “a combined order of specific rules
 11 that renders information into a specific format that is then used and applied to create desired
 12 results: a sequence of synchronized, animated characters.” *McRO*, 837 F.3d at 1315.

13
 14 **II. Alice step two**

15 “In *Alice* step two, we consider the elements of the claim, both individually and as an
 16 ordered combination, to assess whether the additional elements transform the nature of the claim
 17 into a patent-eligible application of the abstract idea.” *Two-Way Media*, 874 F.3d at 1338. “An
 18 inventive concept that transforms the abstract idea into a patent-eligible invention must be
 19 significantly more than the abstract idea itself, and cannot simply be an instruction to implement
 20 or apply the abstract idea on a computer.” *BASCOM Global Internet Servs., Inc. v. AT&T Mobility*
 21 *LLC*, 827 F.3d 1341, 1349 (Fed. Cir. 2016). “The written description is particularly useful in
 22 determining what is well-known or conventional.” *Intellectual Ventures I LLC*, 838 F.3d at 1317.

23 CCGroup argues that the asserted claims “include the inventive concepts of processing
 24 only medical claims data pertaining to predefined sets for individual specialty types, as well as the
 25 application of rules designed to exclude medical claims data from partial or incomplete episodes
 26 of care.” Dkt. No. 297-1 at 1. Truven counters that the functions recited in each step of the
 27 asserted claims are well-understood, routine, and conventional computer functions: retrieving,
 28 sorting and extracting certain specified data, and performing routine calculations on that data.

1 Truven argues that the claims are like those found patent-ineligible in *In re TLI Communications*
2 *LLC Patent Litigation*, in which the Federal Circuit held that claims directed to classifying an
3 image and storing the image based on its classification were not directed to an improvement in
4 computer functionality, and “instead predominately describes the system and methods in purely
5 functional terms.” *In re TLI Commun’cs Litig.*, 823 F.3d at 612. At *Alice* step two, the court held
6 there was no inventive concept because the hardware merely “behaves as expected, and that “[f]or
7 the role of a computer in a computer-implemented invention to be deemed meaningful in the
8 context of this analysis, it must involve more than performance of ‘well-understood, routine [and]
9 conventional activities previously known in the industry.’” *Id.* at 614 (quoting *Content Extraction*
10 *& Transmission*, 776 F.3d at 1347-48). The court found that while certain method steps added
11 limitations to “analyze” the data (such as an “image analysis unit for determining quality of the
12 digital images”) the components were described in “vague, functional” terms that were
13 “insufficient to transform the abstract idea into a patent-eligible invention.” *Id.* at 615.

14 The Court concludes that the asserted claims do not contain an inventive concept that
15 transforms the abstract nature of the claims into a patent-eligible application. The specification
16 shows that the concept of physician efficiency measurement was not new. ’726 Patent at 1:45-51
17 (describing “leading physician efficiency measurement systems”). The specification discusses the
18 purported deficiencies with the existing systems at length, *id.* at 1:52-7:15, and that discussion
19 shows that the existing systems grouped claims data to form episodes of care, *see e.g., id.* at 2:7-9
20 (criticizing existing systems for using “‘all episodes of care’ tracked to a physician”). CCGroup
21 argues that the use of rules, such as assigning physicians to report groups and assigning episodes
22 of care to physicians, and the limitation of calculating scores based upon “predefined sets” of
23 medical conditions is inventive. However, the use of these assignment rules and the limitation of
24 using predefined sets is simply a way of organizing data and then performing an algorithm.
25 “Without additional limitations, a process that employs mathematical algorithms to manipulate
26 existing information to generate additional information is not patent eligible.” *Digitech Image*
27 *Tech.*, 758 F.3d at 1351; *Elec. Power Grp.*, 830 F.3d at 1355 (“[M]erely selecting information, by
28 content or source, for collection, analysis, and [announcement] does nothing significant to

1 differentiate a process from ordinary mental processes, whose implicit exclusion from § 101
2 undergirds the information-based category of abstract ideas.”). There is also nothing about the
3 ordered combination of these steps that makes this abstract process less abstract because the steps
4 still amount to collecting, organizing and analyzing data to calculate physician efficiency scores.
5 *See Two-Way Media*, 874 F.3d at 1339 (“The claim uses a conventional ordering of steps—first
6 processing the data, then routing it, controlling it, and monitoring its reception—with conventional
7 technology to achieve its desired result.”).

8 CCGroup argues that the asserted claims disclose a very specific method of calculating
9 physician efficiency that is patent-eligible.⁹ As discussed *supra*, however, the problem with that
10 argument is that the claim language, as opposed to the specification, is extremely broad. The
11 Federal Circuit recently rejected a similar argument in *Two-Way Media*:

12 While acknowledging that the specification of the ‘187 patent describes a system
13 architecture as a technological innovation, the district court concluded that the
14 claim does not recite this architecture, even taking into account *Two-Way Media*’s
15 proposed constructions. *Two-Way Media*, 2016 WL 4373698, at *5. We agree
16 with the district court. The main problem that *Two-Way Media* cannot overcome
17 is that the claim—as opposed to something purportedly described in the
18 specification—is missing an inventive concept. While the specification may
19 describe a purported innovative “scalable architecture,” claim 1 of the ‘187 patent
20 does not.

21 *Id.* at 1338-39 (internal citation omitted); *see also RecogniCorp*, 855 F.3d at 1327 (“To save a
22 patent at step two, an inventive concept must be evident in the claims.”); *Synopsys, Inc.*, 839 F.3d
23 at 1149 (“[C]omplex details from the specification cannot save a claim directed to an abstract idea
24 that recites generic computer parts.”).

25 Here, the asserted claims disclose an abstract process of collecting and analyzing data to
26 calculate physician efficiency scores, and require that these processes be executed on a generic
27 computer: obtaining data “stored in a non-transitory computer readable medium on the computer
28 system” and then organizing and analyzing that data “utilizing the computer system.” ‘726 Patent
at 110:11-34. But, “after *Alice*, there can remain no doubt: recitation of generic computer

29 ⁹ To the extent CCGroup relies on evidence showing the purported novelty of the
invention claimed in the ‘726 patent, the Court finds that this evidence is not relevant to the § 101
questions presented.

1 limitations does not make an otherwise ineligible claim patent-eligible.” *DDR Holdings LLC v.*
2 *Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014); *FairWarning IP*, 839 F.3d at 1097
3 (“Thus, while the patent may in fact require that the claimed data relate to ‘transactions or
4 activities that are executed in the computer environment,’ limiting the claims to the computer field
5 does not alone transform them into a patent-eligible application.”); *see also Clarilogic, Inc. v.*
6 *FormFree Holdings Corp.*, 681 Fed. App’x 950, 955 (Fed. Cir. 2017) (unpublished) (invalidating
7 computer-implemented method for providing certified financial data indicating financial risk about
8 an individual because “a method for collection, analysis, and generation of information reports,
9 where the claims are not limited to how the collected information is analyzed or reformed, is the
10 height of abstraction,” “the claims require only off-the-shelf, conventional computer technology
11 for gathering, analyzing, and displaying the desired information,” “[e]ven if the ‘243 patent may
12 be said to invoke internet-based systems to increase speed . . . [t]he ‘243 patent does not claim the
13 technical manner in which financial data is gathered, analyzed, or output. It does not claim any
14 proprietary risk-assessment algorithm.”).

15 CCGroup also argues that summary judgment of invalidity is inappropriate because it has
16 submitted evidence showing that the ‘726 patent does not pose a risk of preemption. However,
17 “where a patent’s claims are deemed only to disclose patent ineligible subject matter under the
18 *Alice* framework, preemption concerns are fully addressed and made moot.” *Two-Way*
19 *Media*, 874 F.3d at 1339; *see also Ariosa Diagnostics*, 788 F.3d at 1379 (Fed. Cir. 2015). Thus,
20 while the parties dispute as a factual matter whether the asserted claims preempt the field of ways
21 of measuring physician efficiency, the Court finds that this factual dispute does not preclude
22 summary judgment.

23 24 CONCLUSION


25 For the foregoing reasons, the Court GRANTS Truven’s motion for summary judgment of
26 invalidity under 35 U.S.C. § 101, DENIES CCGroup’s cross-motion for summary judgment of
27 validity under 35 U.S.C. § 101, and DENIES all other pending motions as moot. The Court finds
28 it unnecessary to rule on CCGroup’s general objections to Dr. Adams’ invalidity opinions because

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the Court did not rely on those opinions in this order.

IT IS SO ORDERED.

Dated: December 15, 2017



SUSAN ILLSTON
United States District Judge