

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TELADOC HEALTH, INC.,
Petitioner,

v.

DATA HEALTH PARTNERS, INC.,
Patent Owner.

Case IPR2024-00616
Patent 11,144,554 B2

PETITION FOR *INTER PARTES* REVIEW UNDER 35 U.S.C. § 312

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	MANDATORY NOTICES	1
	A. Real Party in Interest (37 C.F.R. § 42.8(b)(1))	1
	B. Related Matters (37 C.F.R. § 42.8(b)(2)).....	2
	C. Lead and Back-Up Counsel (37 C.F.R. § 42.8(b)(3)).....	2
	D. Service Information (37 C.F.R. § 42.8(b)(4))	3
III.	GROUND FOR STANDING.....	3
IV.	STATEMENT OF PRECISE RELIEF REQUESTED	3
	A. Claims for Which Review Is Requested (37 C.F.R. § 42.104(b)(1))	3
	B. Statutory Grounds of Challenge (37 C.F.R. § 42.104(b)(2))	4
V.	LEVEL OF ORDINARY SKILL IN THE ART.....	7
VI.	THE '554 PATENT.....	7
VII.	Claim Construction.....	8
VIII.	REASONS FOR THE RELIEF REQUESTED UNDER 37 C.F.R. §§ 42.22(a)(2) and 42.104(b)(4)	9
	A. Ground 1 – Douglas Renders Obvious Claims 1, 2, 4, 5, 7, 9, 10, 13, 15, and 17	9
	1. Douglas Overview.....	9
	2. Claim 1	11
	3. Claim 2: The method according to claim 1, further comprising: automatically communicating alerts in response to the compiled data varying from one or more of the thresholds to become significant for the client.	30
	4. Claim 4: The method according to claim 1, further comprising: establishing a baseline for the goals of the client.	30
	5. Claim 5: The method according to claim 4, wherein the baseline is set based on tests, recorded activities, and general notes.	32

6.	Claim 7: The method according to claim 1, further comprising: establishing the goals and the plan of action for the client utilizing goal creating and tracking software, wherein the data, goals, plan of action, compiled data, and thresholds are associated with the account of the client.	33
7.	Claim 9: The method according to claim 1, further comprising: recommending a next goal in response to the client completing the goal.	37
8.	Claim 10: The method according to claim 1, further comprising: determining whether the data required is received from each of the one or more providers; and sending an alert to the one or more providers in response to determining there is missing data for the client associated with the one or more providers.	38
9.	Claim 13	38
10.	Claim 15: The system according to claim 13, wherein the client management program further establishes a baseline for the goals of the client, wherein the baseline is set based on tests, recorded activities, and general notes.	48
11.	Claim 17	48
B.	Ground 2 – Douglas and Wager Render Obvious Claims 1, 2, 4, 5, 7, 9, 10, 12, 13, 15, and 17	51
1.	Wager Overview	51
2.	Modification of Douglas	53
3.	Motivation to Combine	54
4.	Claims 1, 2, 4, 5, 7, 9, 10, 13, 15, and 17	55
5.	Claim 12: The method according to claim 9, further comprising: matching the client with a provider from the one or more providers for the next goal.	57
C.	Grounds 3 and 4 – Douglas and Chitiveli (Ground 3), and Douglas, Wager, and Chitiveli (Ground 4) Render Obvious Claim 6	58
1.	Chitiveli Overview	58
2.	Modification of Douglas	59
3.	Motivation to Combine	60

4.	Claim 6: The method according to claim 1, wherein the server is accessed through a cloud network, and wherein a client management program is executed by the computing or communications devices is utilized to receive the data and track progress of the goals.	62
D.	Grounds 5 and 6 – Douglas and Klotsche (Ground 5), and Douglas, Wager, and Klotsche (Ground 6) Render Obvious Claims 11, 16, and 19.....	63
1.	Klotsche Overview.....	63
2.	Modification of Douglas	64
3.	Motivation to Combine	65
4.	Claim 11: The method according to claim 2, further comprising: generating a score based on the compiled data to determine if the compiled data varies from the thresholds to become significant for the client.....	67
5.	Claim 16: The system according to claim 13, wherein the client management program further generates a score based on the compiled data to determine if the compiled data varies from the thresholds to become significant for the client.	67
6.	Claim 19: The server according to claim 17, wherein the set of instructions are further executed to generate a score based on the compiled data to determine if the compiled data varies from the thresholds to become significant for the client.	68
E.	Grounds 7 and 8 – Douglas and Koh (Ground 7), and Douglas, Wager, and Koh (Ground 8) Render Obvious Claims 8, 14, and 20	68
1.	Koh Overview	68
2.	Modification of Douglas	69
3.	Motivation to Combine	71
4.	Claim 8.....	72
5.	Claim 14: The system according to claim 13, wherein the database is a relational database management system performing data mining to analyze the data from the providers to determine best practices, wherein the best practices are recommended for the client if relevant.	73

6. Claim 20: The server according to claim 17, wherein the set of instructions are further executed to data mine the compiled data to determine best practices; and recommend the best practices to the providers in response to the best practices being associated with a client assigned to the providers. 73

IX. CONCLUSION.....74

PETITIONER'S EXHIBIT LIST

Exhibit	Shorthand	Description
1001	'554 Patent	U.S. Patent No. 11,144,554 B2
1002	Douglas	Pub. No. WO 1999/003045 A1
1003	Wager	Pub. No. US 2006/0149589 A1
1004	Chitiveli	Pub. No. US 2013/0179450 A1
1005	Klotsche	J. Klotsche et al., <u>The DETECT adherence score—structure and psychometric exploration of a novel approach to measure adherence to drug and non-drug interventions in primary care</u> , 20 Int. J. Methods Psychiatr. Res. 82 (2011)
1006	Klotsche1Archive	Printout of https://web.archive.org/web/20111208022202/http://onlinelibrary.wiley.com:80/journal/10.1002/(ISSN)1557-0657 , evidencing 2011 public availability of Klotsche
1007	Klotsche2Archive	Printout of https://web.archive.org/web/20130215121952/http://onlinelibrary.wiley.com:80/doi/10.1002/mpr.v20.2/issuetoc , evidencing 2011 public availability of Klotsche
1008	ArchiveDec	Affidavit of Nathaniel E Frank-White
1009	Koh	Hian Chye Koh & Gerald Tan, <u>Data Mining Applications in Healthcare</u> , 19 J. Healthcare Information Management 64 (2005)
1010	KohArchive	Printout of https://web.archive.org/web/20050418095732/http://www.himss.org/ASP/publications_jhim_issue.asp?issue=3/30/2005 , evidencing 2005 public availability of Koh
1011	Hall-Ellis	Declaration of Sylvia D. Hall-Ellis, Ph.D.
1012	Bergeron	Declaration of Bryan Bergeron, M.D.
1013	BergeronCV	Curriculum Vitae of Bryan Bergeron, M.D.
1014	Microsoft	<u>Microsoft Computer Dictionary</u> (5th ed. 2002)
1015	ADAA	Printout of https://web.archive.org/web/20100116093130/https://adaa.org/supportgroups

Exhibit	Shorthand	Description
1016	MayoBP	<u>Blood pressure test</u> , Mayo Clinic, https://www.mayoclinic.org/tests-procedures/blood-pressure-test/about/pac-20393098 (last accessed Oct. 28, 2023)
1017	MayoC	<u>Cholesterol test</u> , Mayo Clinic, https://www.mayoclinic.org/tests-procedures/cholesterol-test/about/pac-20384601 (last accessed Oct. 28, 2023)
1018	NetSuite	Printout of https://web.archive.org/web/20111102042326/https://www.netsuite.co.uk/portal/uk/resource/articles/cloud-computing.shtml

Claim Listing

Claim	Limitation No.	Limitation
1	1[p]	A method for tracking goal progression, the method comprising:
	1[a]	receiving input, by an administrator, for establishing an account for a client, wherein the client is an individual receiving treatment or assistance, and wherein the accounts are stored in a server available through one or more networks;
	1[b]	assigning the client to one or more of providers in response to selections from the administrator, wherein the one or more providers include at least individuals available to treat or assist the client;
	1[c]	determining, by the one or more providers, treatment and assistance for the client, which is used for establishing goals, a plan of action, and thresholds for the client, wherein the thresholds represent certain points of progress towards the goals;
	1[d]	periodically receiving updated data, from the one or more providers, about the status and/or well-being of the client;
	1[e]	compiling data associated with the client received from the one or more providers utilizing computing or communications devices in communication with the server, wherein the computing or communications devices represent devices communicating with the server from any of one or more networks, in order to determine progress of the client towards achieving the goals; and
	1[f]	determining whether the thresholds associated with the goals are being met based on the compiled data; and
	1[g]	modifying the plan of action, by the one or more providers, in response to one or more of the thresholds not being met.

Claim	Limitation No.	Limitation
2	2	The method according to claim 1, further comprising: automatically communicating alerts in response to the compiled data varying from one or more of the thresholds to become significant for the client.
4	4	The method according to claim 1, further comprising: establishing a baseline for the goals of the client.
5	5	The method according to claim 4, wherein the baseline is set based on tests, recorded activities, and general notes.
6	6	The method according to claim 1, wherein the server is accessed through a cloud network, and wherein a client management program is executed by the computing or communications devices is utilized to receive the data and track progress of the goals.
7	7	The method according to claim 1, further comprising: establishing the goals and the plan of action for the client utilizing goal creating and tracking software, wherein the data, goals, plan of action, compiled data, and thresholds are associated with the account of the client.
8	8[a]	The method according to claim 1, further comprising: data mining the compiled data to determine best practices; and
	8[b]	recommending the best practices to the one or more providers in response to the best practices being associated with a client assigned to the one or more providers.
9	9	The method according to claim 1, further comprising: recommending a next goal in response to the client completing the goal.
10	10[a]	The method according to claim 1, further comprising: determining whether the data required is received from each of the one or more providers; and

Claim	Limitation No.	Limitation
	10[b]	sending an alert to the one or more providers in response to determining there is missing data for the client associated with the one or more providers.
11	11	The method according to claim 2, further comprising: generating a score based on the compiled data to determine if the compiled data varies from the thresholds to become significant for the client.
12	12	The method according to claim 9, further comprising: matching the client with a provider from the one or more providers for the next goal.
13	13[p]	A system for tracking goal progression, the system comprising:
	13[a]	a server communicates with communications devices through a transceiver utilizing one or more networks, the server includes a processor that executes a client management program to:
	13[b]	receive input, by an administrator, for establishing an account for one or more providers serving a client, wherein the client is an individual receiving treatment or assistance, and wherein the accounts are stored in a server available through one or more networks,
	13[c]	assign the client to one or more of the providers in response to selections from the administrator, wherein the one or more providers include at least individuals available to treat or assist the client,
	13[d]	determine, by the one or more providers, treatment and assistance for the client, which is used to establish goals, a plan of action, and thresholds for the client, wherein the thresholds represent certain points of progress towards the goals,

Claim	Limitation No.	Limitation
	13[e]	compile data associated with the client received from the providers utilizing computing or communications devices in communication with the server,
	13[f]	determine whether the thresholds associated with the goals are being met based on the compiled data, and
	13[g]	modify the plan of action, by the one or more providers, in response to one or more of the thresholds not being met; and
	13[h]	a database in communication with the server configured to store the data, goals, plan of action, compiled data, and thresholds with the account associated with the client and the one or more providers.
14	14	The system according to claim 13, wherein the database is a relational database management system performing data mining to analyze the data from the providers to determine best practices, wherein the best practices are recommended for the client if relevant.
15	15	The system according to claim 13, wherein the client management program further establishes a baseline for the goals of the client, wherein the baseline is set based on tests, recorded activities, and general notes.
16	16	The system according to claim 13, wherein the client management program further generates a score based on the compiled data to determine if the compiled data varies from the thresholds to become significant for the client.
17	17[p]	A server comprising:
	17[a]	a processor for executing a set of instructions; and
	17[b]	a memory for storing the set of instructions, wherein the set of instructions are executed by the processor to:

Claim	Limitation No.	Limitation
	17[c]	receive input, by an administrator, for establishing an account for one or more providers serving a client, wherein the client is an individual receiving treatment or assistance, and wherein the accounts are stored in a server available through one or more networks;
	17[d]	assign the client to one or more of the providers in response to selections from the administrator, wherein the one or more providers include at least individuals available to treat or assist the client;
	17[e]	determine, by the one or more providers, treatment and assistance for the client, which is used to establish goals, a plan of action, and thresholds for the client, wherein the thresholds represent certain points of progress towards the goals;
	17[f]	periodically receive updated data about the status and/or well-being of the client from the providers, about the status and/or well-being of the client;
	17[g]	compile data associated with the client received from the providers utilizing computing or communications devices in communication with the server, in order to determine progress of the client towards achieving the goals; and
	17[h]	determine whether the thresholds associated with the goals are being met based on the compiled data; and
	17[i]	modify the plan of action, by the provider, in response to determining whether the one or more thresholds are not being met.
19	19	The server according to claim 17, wherein the set of instructions are further executed to generate a score based on the compiled data to determine if the compiled data varies from the thresholds to become significant for the client.

Claim	Limitation No.	Limitation
20	20	The server according to claim 17, wherein the set of instructions are further executed to data mine the compiled data to determine best practices; and recommend the best practices to the providers in response to the best practices being associated with a client assigned to the providers.

I. INTRODUCTION

The '554 Patent is directed to a system for tracking a client's progress toward goals. In particular, the system establishes goals for a client (such as those relating to healthcare, e.g., teeth brushing, exercise, and medication intake), compiles received data to determine whether the client is progressing toward the goals, and notifies the client's provider based on the progress. The provider can then modify the client's program as appropriate when thresholds are not being met. The '554 Patent asserts that, because it implements this system using communication devices and a server, it constitutes an improvement over pre-existing paper- or local-computer-based goal-tracking systems.

Such a system, however, was known as early as 1999. For example, Douglas discloses an internet-accessible system implemented on a server that likewise establishes goals for a client, including related to exercise and medication intake, collects data over time to determine the client's progress toward the goals, and notifies the client's provider accordingly, who can then modify the client's plan as they see fit.

II. MANDATORY NOTICES

A. Real Party in Interest (37 C.F.R. § 42.8(b)(1))

The real party-in-interest is Petitioner, Teladoc Health, Inc.

B. Related Matters (37 C.F.R. § 42.8(b)(2))

The following matters could affect, or be affected by, a decision in this proceeding:

1. Pending U.S. Patent App. No. 17/499,725, which is a continuation of the '554 Patent;
2. U.S. Patent No. 11,809,431 B2, which is a continuation of the '554 Patent;
3. Pending U.S. Patent App. No. 18/502,813, which is a continuation of the '554 Patent;
4. U.S. Patent No. 11,151,142 B2 (the "'142 Patent"), of which the '554 Patent is a continuation in-part;
5. U.S. Patent No. 10,061,812 B2 (the "'812 Patent"), of which the '142 Patent is a continuation;
6. U.S. Patent No. 11,675,791 B2, which is a continuation of the '142 Patent; and
7. *Data Health Partners, Inc. v. Teladoc Health, Inc.*, 1-23-cv-00160-JCG (D. Del.), in which the '554, '142, and '812 Patents are asserted.

C. Lead and Back-Up Counsel (37 C.F.R. § 42.8(b)(3))

Lead Counsel	Back-Up Counsel
Michael Solomita (Reg. No. 53,940)	Jeremy Albright (Reg. No. 73,379) Stephen Guzzi (Reg. No. 56,367)

D. Service Information (37 C.F.R. § 42.8(b)(4))

Lead Counsel	Back-Up Counsel
Michael Solomita Norton Rose Fulbright US LLP 1301 Avenue of the Americas New York, NY 10019-6022 212.318.3000 (telephone) 212.318.3400 (facsimile) michael.solomita@nortonrosefulbright.com	Jeremy Albright Norton Rose Fulbright US LLP 98 San Jacinto Blvd., Suite 1100 Austin, TX 78701 512.536.3111 (telephone) 512.536.4598 (facsimile) jeremy.albright@nortonrosefulbright.com Stephen Guzzi Norton Rose Fulbright US LLP 799 9th Street NW, Suite 1000 Washington, DC 20001 212.318.3042 (telephone) 212.318.3400 (facsimile) stephen.guzzi@nortonrosefulbright.com

Petitioner consents to electronic service at the above e-mail addresses.

III. GROUNDS FOR STANDING

Petitioner certifies that the '554 Patent is available for IPR, and Petitioner is not barred or estopped from requesting an IPR on the grounds identified herein. The '554 Patent has not been subject to a previous FWD in an estoppel-based AIA proceeding.

IV. STATEMENT OF PRECISE RELIEF REQUESTED

A. Claims for Which Review Is Requested (37 C.F.R. § 42.104(b)(1))

Petitioner requests review and cancellation of Claims 1, 2, 4-17, 19, and 20 (the "Challenged Claims") of the '554 Patent.

B. Statutory Grounds of Challenge (37 C.F.R. § 42.104(b)(2))¹

Ground	Basis	Reference(s)	Challenged Claims
1	§ 103	Douglas	1, 2, 4, 5, 7, 9, 10, 13, 15, and 17
2	§ 103	Douglas and Wager	1, 2, 4, 5, 7, 9, 10, 12, 13, 15, and 17
3	§ 103	Douglas and Chitiveli	6
4	§ 103	Douglas, Wager, and Chitiveli	6
5	§ 103	Douglas and Klotsche	11, 16, and 19
6	§ 103	Douglas, Wager, and Klotsche	11, 16, and 19
7	§ 103	Douglas and Koh	8, 14, and 20
8	§ 103	Douglas, Wager, and Koh	8, 14, and 20

Published on January 21, 1999, Douglas (Ex. 1002) is prior art under § 102(b).

Published on July 6, 2006, Wager (Ex. 1003) is prior art under § 102(b).

Filed on January 11, 2012, Chitiveli (Ex. 1004) is prior art under § 102(e).

Published in 2011, Klotsche (Ex. 1005) is prior art under § 102(b). Klotsche's 2011 publication date is evidenced by Dr. Hall-Ellis's testimony that Klotsche was publicly available on or shortly after July 15, 2011. Hall-Ellis at ¶¶ 36-44. That testimony is based on: (1) Klotsche's MARC record from the National Library of Medicine indicating that the Library received Klotsche's journal since April 1991 and that Klotsche's journal was catalogued as "[p]sychiatry [] methods" (*id.* at ¶¶

¹ All Grounds are supported by a POSITA's general knowledge. *Koninklijke Philips N.V. v. Google LLC*, 948 F.3d 1330, 1337-38 (Fed. Cir. 2020).

37-39, 19, Attachments 1A and 1F); (2) Klotsche's MARC record from the Library of Congress that was created on April 6, 1990, indicating that Klotsche's journal is a quarterly publication with subject matter classified as "[p]scyhiatry [r]esearch [m]ethodology [p]eriodicals," "[p]sychiatry [p]eriodicals," and "[p]sychiatry [] methods" and is currently available from 80 libraries (*id.* at ¶¶ 40-44, Attachments 1B-1G); and (3) the July 15, 2011-receipt label affixed to Klotsche's cover (Klotsche at 1; Hall-Ellis at ¶¶ 38, 20-21).

Klotsche's 2011 publication date is also evidenced by Klotsche1Archive, which is a December 8, 2011 archived version of a Wiley Online Library webpage (ArchiveDec at 1, 24-25) including a hyperlink to the "June 2011[,] Volume 20, Issue 2" of the International Journal of Methods in Psychiatric Research that included Klotsche. Klotsche1Archive at 1; Klotsche at 1. The hyperlink leads to Klotsche2Archive, which albeit later archived on February 15, 2013 (ArchiveDec at 1, 21-22), contains Klotsche in its list of articles and includes links to the "Full Article." Klotsche2Archive at 1.

Published in 2005, Koh (Ex. 1010) is prior art under § 102(b). Koh's 2005 publication date is evidenced by Dr. Hall-Ellis's testimony that Koh was publicly available on or shortly after April 30, 2005. Hall-Ellis at ¶¶ 45-52. That testimony is based on: (1) Koh's MARC record from the Albin O. Kuhn Library & Gallery indicating that the Library received Koh's journal since 1998 and that Koh's journal

was catalogued as “[m]edical informatics [p]eriodicals” and “[h]ealth services administration [d]ata processing [p]eriodicals” (*id.* at ¶¶ 46-48, 19, Attachments 2A-2C and 1D); and (2) Koh’s MARC record from the Library of Congress that was created on April 22, 1977, indicating that the journal is a quarterly publication with subject matter classified as “[m]edical informatics [p]eriodicals,” “[h]ealth services administration [d]ata processing [p]eriodicals,” and “[i]nformation storage and retrieval systems [m]edical care [p]eriodicals,” and is currently available from 30 libraries (*id.* at ¶¶ 49-52, Attachments 2B-2E and 1D).

Koh’s 2005 publication is also evidenced by KohArchive, which is an April 18, 2005 archived version of a Healthcare Information and Management Systems Society webpage (ArchiveDec at 18) that includes the contents of the “2005 – Volume 19 Issue 2” of the Journal of Healthcare Information Management (KohArchive at 1) in which Koh was published (Koh at 1). KohArchive lists Koh and includes its authors and a truncated version of its abstract. *Compare* Koh at 1 *with* KohArchive at 2.

V. LEVEL OF ORDINARY SKILL IN THE ART

A POSITA as of October March 15, 2013²—the '554 Patent's earliest claimed priority date—would have had at least a bachelor's degree in a healthcare field as well as 1-2 years of experience with health information technology, including specific experience with computer-based systems for recording, tracking, and analyzing patient health information. Bergeron at ¶ 36. The prior art and the '554 Patent also evidence this level of ordinary skill. *Id.*; see *Chore-Time Equip., Inc. v. Cumberland Corp.*, 713 F.2d 774, 779 (Fed. Cir. 1983); *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

VI. THE '554 PATENT

As the '554 Patent explains, “[t]he ability of organizations, hospitals, schools, businesses, individuals, and others to meet goals is, and always will be, a significant challenge,” so “it is important to recognize and treat problems and issues that prevent goals and other objectives from being achieved.” '554 Patent at 1:15-19. With respect to helping individuals meet their goals, the '554 Patent recognizes that “organizations and institutions ... have improved their processes in recent years.”

² All statements in this Petition about the knowledge and skills of, and what would have been obvious to, a POSITA are offered from this perspective as of this date. Bergeron at ¶ 2 and 3.

Id. at 1:19-26. Such “[i]mproved assessment, medications, training, treatment processes, and education[] have provided solutions.” *Id.* at 1:26-29.

The problem, per the ’554 Patent, is that “electronic systems, equipment, software, and processes for tracking, treating, and recording results ... have not improved as significantly.” *Id.* at 1:30-33. “For example, some organizations still use paper documents and charts to track individuals’ information or a single computing system available from only one location to enter and review data.” *Id.* at 1:33-36. With such systems, “viewing, updating, managing, and sharing[] relevant information may be more difficult than it should be.” *Id.* at 1:36-38.

To address this problem, the ’554 Patent presents a platform that is used to create goals for a client, compile client data to determine whether the client is progressing toward their goals, notify the client’s provider regarding the client’s progress, and allow the provider to modify the client’s program as needed. *Id.* at 4:36-42; claims 1, 13, and 17.

VII. CLAIM CONSTRUCTION

None of the claim terms of the Challenged Claims require an explicit construction to resolve the current grounds.

**VIII. REASONS FOR THE RELIEF REQUESTED UNDER 37 C.F.R. §§
42.22(A)(2) AND 42.104(B)(4)**

**A. Ground 1 – Douglas Renders Obvious Claims 1, 2, 4, 5, 7, 9, 10, 13,
15, and 17**

1. *Douglas Overview*

Douglas is directed to “[a] therapeutic behavior modification program, compliance monitoring and feedback system” that “enables development of a therapeutic behavior modification program having a series of milestones for an individual to achieve lifestyle changes necessary to maintain his or her health.” Douglas at Abstract; Bergeron at ¶ 39.

In Douglas’s system, a patient—ranging from one having “coronary artery disease” to one “who simply want[s] to maintain their health”—is subscribed to the system. Douglas at 6:6-14; Bergeron at ¶ 40. The patient’s subscription is performed by an administrator “based on information contained in the patient prescription form” (Douglas at 6:33-7:20, FIG. 60), which is filled out and signed by the patient’s physician (*id.* at FIG. 2). Bergeron at ¶ 40. An account is created as part of that process into which the patient can “log in” to “view their levels of compliance and achievement of goals” (Douglas at 8:29-31, 12:3-7) and the patient’s physician updates the account as the patient progresses through the system, both in terms of the goals and the patient data used to assess achievement of those goals (*id.* at 3:13-14, 11:1-5, 11:26-28). Bergeron at ¶ 40.

“Once the ... administrator enters the patient into the system, [] the system ... recommends a default set of goals based on the patient’s needs and existing medical protocols that may be modified by the physician.” Douglas at 7:17-8:13; Bergeron at ¶ 41. Exemplary goals set by Douglas’s system include everything from “intake of calories from fat” to “Seatbelt Use.” Douglas at 8:1-13, FIG. 6. Bergeron at ¶ 41. Those goals also include interim steps—“one month goals 61”—toward the “final goals 62.” Douglas at 8:10-13; FIG. 6; Bergeron at ¶ 41.

Douglas’s system then periodically receives updated patient data, including data entered by the physician (Douglas at 11:1-5, FIG. 60), to determine the “patient’s progress and compliance with the program” (*id.* at 11:26-28). Bergeron at ¶ 42. If the updated patient data shows that the patient is not meeting their goals, the system “notif[ies] the physician,” who “may contact the patient in order to support and to further motivate” the patient or “recommend that the program be modified to suit the patient’s condition.” Douglas at 11:18-25; Bergeron at ¶ 42.

Douglas’s system is implemented on a “network server 508” including “relational databases 522 ... that contain all the health plan data” and, more generally, “[a]ll the information needed by a user of the system.” Douglas at 24:12-34, FIG. 59; Bergeron at ¶ 43. The system is accessible by “patients, physicians,” and other users, for example, “via the Internet 518” and using “a PC 500.” Douglas at 24:3-26, FIG. 59; Bergeron at ¶ 43.

2. *Claim 1*

(a) *Limitation 1[p]: A method for tracking goal progression, the method comprising:*

The preamble of claim 1 merely recites an intended use and is therefore not entitled to patentable weight. To the extent the preamble is found limiting, Douglas discloses a method for tracking goal progression: “the system recommends modifications and updates to both physician and patient by correlating the patient’s progress with previously established goals.” Douglas at 2:36-3:2; Bergeron at ¶ 44; *see also* Douglas at Abstract, 8:1-8, 11:7-10, 11:18-12:2, 20:14-19, 20:29-30, FIG. 7.

(b) *Limitation 1[a]: receiving input, by an administrator, for establishing an account for a client, wherein the client is an individual receiving treatment or assistance, and wherein the accounts are stored in a server available through one or more networks;*

Douglas discloses receiving input by an administrator. In Douglas’s method, “the case administrator sets up a new patient based on information contained in the patient prescription form” (Douglas at 6:36-7:20), which involves the administrator “enter[ing] the patient into the system” (*id.*) and entering patient information online (*id.* at FIG. 60), each of which constitutes input by the administrator. Bergeron at ¶ 45. The patient prescription form is illustrated in Douglas FIG. 2 (reproduced below):

Fig 2

22 ~ **HeartLand Prescription Form**

23

Patient Name	Patient ID	Date	Physician Name	Physician ID

1. Fill in diagnosis:

Patient Diagnosis	Co-morbid Diagnosis
	26

2 Circle a diagnostic category:

Category	Diagnosis	Level 1 (mos.)	Level 2 (mos.)	Level 3 (mos.)	Health and Wellness
I	Current year MI survivor	3	3	6	Contin.>12th month
II	Current year alt. to PTCA or CABG	3	3	6	Contin.>12th month
III	Current year diagnosed CAD	3	3	6	Contin.>12th month
IV	All diagnosed Angina	3	3	6	Contin.>12th month
V	Prior years' post MI/surgical--High Risk	3	3	6	Contin.>12th month
VI	Prior years' post MI/surgical--Low Risk	1	1	10	Contin.>12th month
VII	2 or more Risk factors	0	2	4	Contin.>6th month
VIII	Health and Wellness	0	0	0	Continuous

24 ~

3. Please circle as appropriate:

30 { Does the patient need smoking cessation? Yes No
Have you prescribed nicotine patch or gum? Yes No
Does the patient need weight reduction? Yes No If yes, target weight: _____

32 ~ 4. What are patient's current and prescribed medications?

Medication	Standard Dosage	Comments/Changes
HCTZ	25 mg	
Atenolol	50 mg	
Lisinopril	20 mg	
Atorvastatin	20 mg	
Lovastatin	20 mg	
Antioxidant: Vitamin E	400 IU	
Antioxidant: Vitamin C	500 mg	
Other:		
Other:		
Other:		
Other:		

34 ~ 5. Circle or fill in desired 3-month targets:

Daily calories	1200	1500	2000	2500	3000
Sat Fat Grams	<15	15	18	20	25
Pct Fat Cal	10%	15%	20%	25%	30%
Exercise (Freq/wk/RPE)	20/5x/3	30/5x/4	45/5x/5	50/5x/6	60/5x/7
Max Heart Rate					
Stress Reduction Needs	Low Need	Some	Definite	High	Very High
Lipid Level Target					
Total Cholesterol	140	150	175	200	<225
LDL	60	70	80	<100	<125
HDL	35	37	39	41	>42

Physician's Signature: _____ Telephone: _____

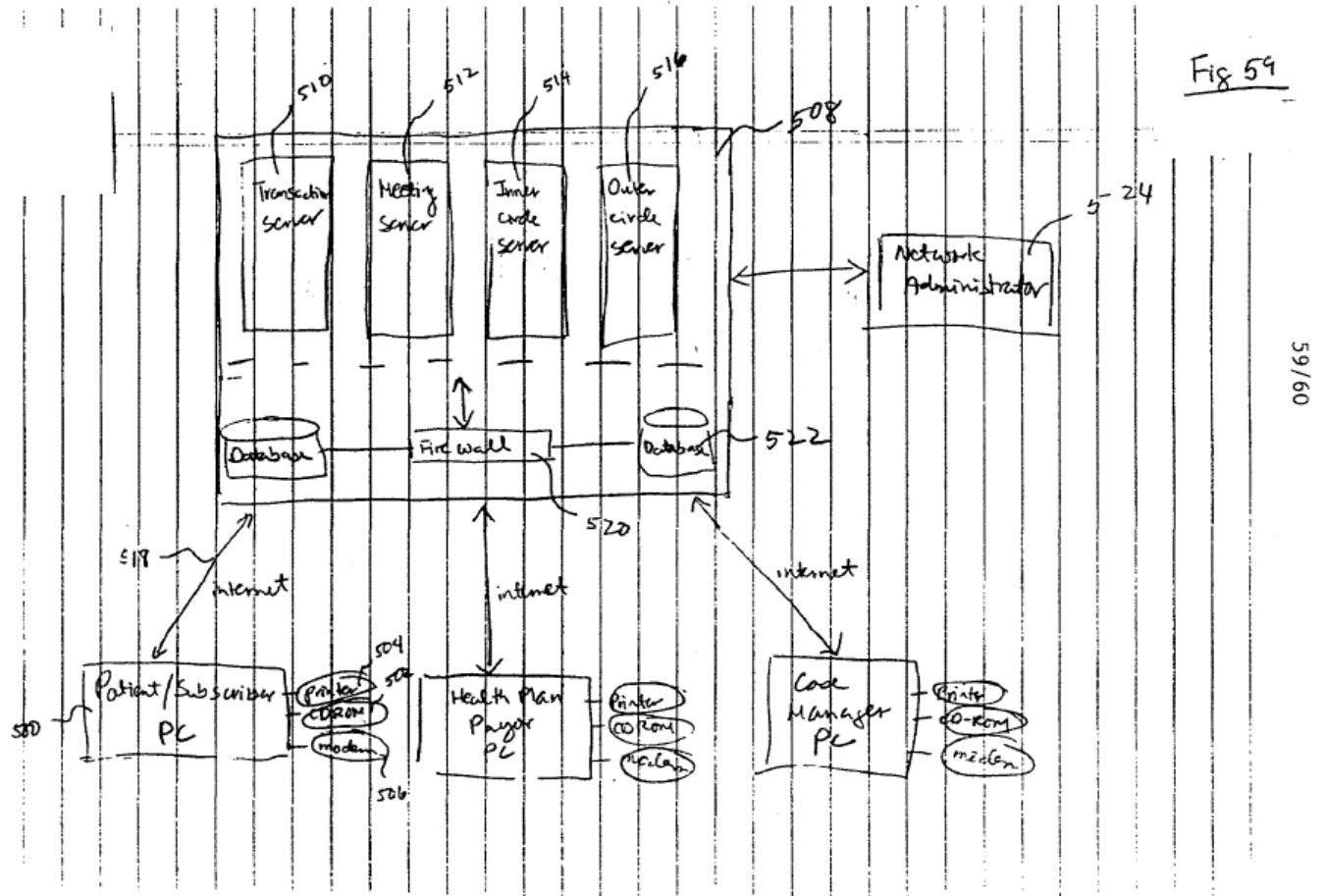
FAX THIS FORM TO SALUS MEDIA: (805) 969-3601
You will receive Fax confirmation within 24 Hours. For Assistance please call: (805) 969-2234

Douglas FIG. 2

Douglas discloses that such input is for establishing an account for a client, as Douglas explains that “[o]nce the patient is set up on the system, it assists him or her

in complying with his or her behavior modification program,” and “[t]o use the program, the patient logs into the system network” (Douglas at 8:28-31) using a “user id and password” (*id.* at 25:5-10, FIG. 36)—i.e., the patient logs into an account established for the patient. Bergeron at ¶ 46. Douglas’s patient is the claimed client. *See* ’554 Patent at 5:5-7 (“Individuals being cared for may be referred to as clients [or] patients”); Bergeron at ¶ 46.

Douglas further discloses that such accounts are stored in a server, as this patient account—like other patient accounts in Douglas’s system—is stored on Douglas’s network server 508, as shown in Douglas’s FIG. 59 (reproduced below):



Douglas FIG. 59

Specifically, Douglas’s server 508 includes “a transaction server 510, meeting server 512, ‘inner circle’ server 514, and ‘outer circle’ server 516.” Douglas at 24:12-16; Bergeron at ¶ 48. “The servers 510-516 have access to one or more relational databases 522 (such as SQL) that contain all the health plan data” along with “[a]ll the information needed by a user of the system” (Douglas at 24:28-37), and those databases are also part of server 508 (*id.* at FIG. 59). Bergeron at ¶ 48. Server 508 thus stores the patient’s account, as it contains “[a]ll the information needed by a user of the system,” including the patient. Douglas at 24:28-37; Bergeron at ¶ 48.

Douglas discloses that server 508 is available through one or more networks, as Douglas discloses that “each PC 500 is electronically linked to network server 508 via the Internet 518.” Douglas at 24:12-13, FIG. 29; Bergeron at ¶ 49; *see also* Douglas at 8:28-31.

Finally, Douglas’s patient is an individual receiving treatment or assistance from their physician, as, prior to being set up on the system, the physician “diagnoses [the patient] with an ailment ... [and] recommend[s] a health care maintenance or recovery program which requires the patient to” take certain medications and actions. Douglas at 6:24-35; Bergeron at ¶ 50.

(c) *Limitation 1[b]: assigning the client to one or more of providers in response to selections from the administrator, wherein the one or more providers include at least individuals available to treat or assist the client;*

Douglas also discloses assigning the client to a provider. In Douglas’s system, the patient is assigned to their physician, who provides treatment or assistance to the patient (*see* Section VIII.A.2(b) (Limitation 1[a])). Douglas at 21:24-28, FIG. 47 (showing the “Responsible Physician” for patient “Fred Smith”), 15:8-9 (patients “keep in constant contact with their physician.”), claims 11, 25 (“alerting the individual’s physician”), FIG. 2 (associating the patient, “Patient Name[/]ID,” with a physician, “Physician Name[/]ID”), FIG. 7 (“Dear Doctor **Cavello**: This is a status report on your patient”); Bergeron at ¶ 51. Indeed, such patient-to-physician

assignment is required for Douglas's system to, *inter alia*, "provide[] the physician with reports of patient progress," "send an alarm to the physician," or otherwise "notify the physician" of the patient's progress. Douglas at 11:6-12:2; Bergeron at ¶ 52. Douglas's physician is the claimed provider. *See* '554 Patent at 4:64-5:7 ("a provider is ... [a] caregiver" who "care[s] for ... patients."); Bergeron at ¶ 52.

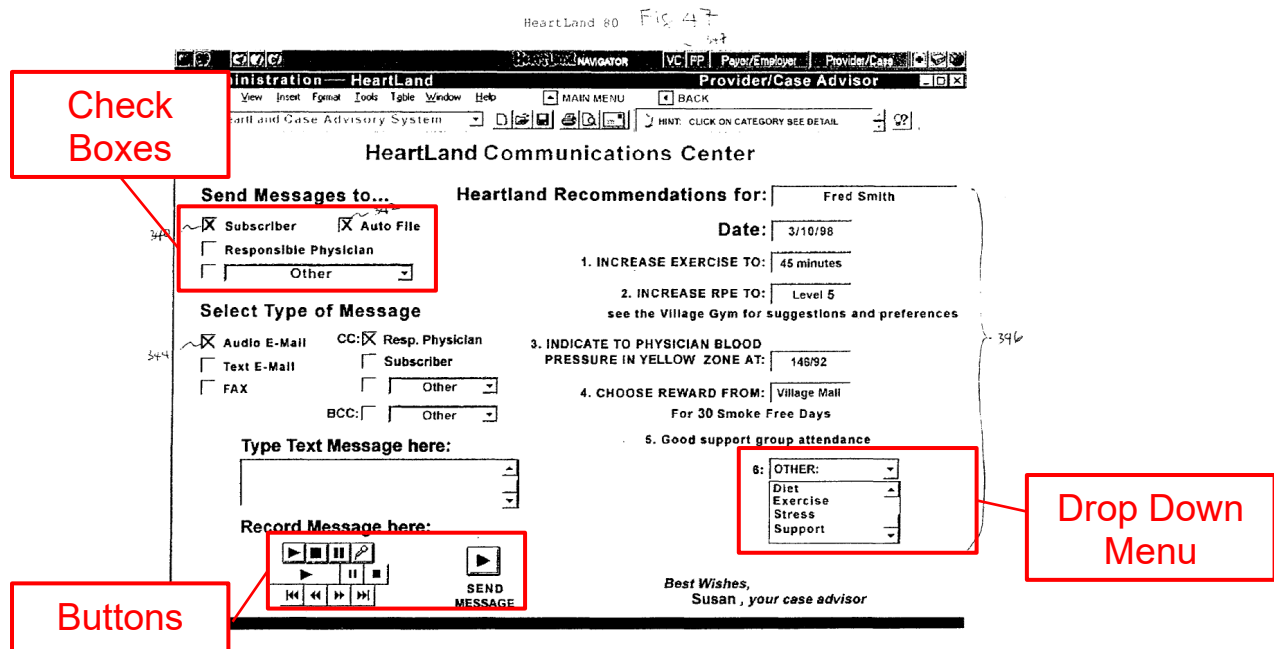
Douglas further discloses that such assigning of clients to providers is in response to selections from the administrator, as the case administrator sets up the patient on Douglas's system by entering the information contained in the patient prescription form, as discussed above for Limitation 1[a], where such information includes information associating the patient with a physician. Douglas at FIG. 2 ("Physician" name, ID, and signature); Bergeron at ¶ 53. A POSITA would have understood Douglas's disclosure of the administrator entering this patient-physician information from the patient prescription form to be disclosure of the administrator's assignment of the patient to the physician within Douglas's system. Bergeron at ¶ 53.

It also would have been obvious for the case administrator to assign the patient to the physician. Bergeron at ¶ 54. As explained *supra*, such assignment had to be created to achieve the functionality of Douglas's system, and the administrator was a logical and therefore obvious option for creating it, particularly in view of Douglas's disclosure that it is the administrator who "sets up a new patient based on

information contained in the prescription form” (Douglas at 6:33-7:20), and the prescription form identifies the patient’s physician (*supra*). Bergeron at ¶ 54.

Additionally, by entering the patient prescription form, the case administrator’s assignment of the patient to the physician constitutes the administrator’s selections of the patient and of the physician to be assigned to the patient. Bergeron at ¶ 55.

Should PO argue that something more is required to meet the claimed selections, Douglas also renders obvious the assignment by the administrator of the patient to the physician through selections of graphical user interface (“GUI”) components. Bergeron at ¶ 56. Douglas discloses several GUI components, including check boxes, drop-down menus, and buttons, which are shown in, for example, Douglas’s FIG. 47 (reproduced below):



Annotated Version of Douglas FIG. 47

Bergeron at ¶ 57; *see also e.g.*, Douglas at FIGs. 5, 6, 38, 39, 46, 49-52, 58.

It would have been obvious to use Douglas's GUI components to assign the patient to the physician in each of the following ways:

- (1) by selecting a check box associated with the physician in a list of physicians and selecting a button to assign the patient to the physician; and
- (2) by selecting the physician from a list of physicians in a drop-down menu and selecting a button to assign the patient to the physician.

Bergeron at ¶ 58.

First, each of these options represents an obvious “combination of familiar elements according to known methods ... [that] does no more than yield predictable results.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 401 (2007); Bergeron at ¶ 59. As Douglas’s FIG. 47 reflects, Douglas discloses the use of selectable check boxes and drop-down menus from which to choose items. Douglas at FIG. 47 (check boxes for “Send Messages to...” and “Type of message” and drop-down menus for the same in addition to “Recommendations” for the patient); Bergeron at ¶ 59. FIG. 47 also evidences Douglas’s use of a selectable button to act upon those choices. Douglas at FIG. 47 (“SEND” the chosen message type to the chosen recipients with the chosen recommendations); Bergeron at ¶ 59.

In both options (1) and (2), the check boxes and drop-down menu, respectively, would perform the same choosing-from-a-list function they do in Douglas’s FIG. 47, but for a list of physicians. Bergeron at ¶ 60. And the button would, like in FIG. 47, act upon the choices—here, to create the patient-to-physician assignment. *Id.* at ¶ 60. Thus, in options (1) and (2), the functions of the GUI components remain unchanged. *Id.* at ¶ 60. Each of the options would also lead to the predictable result of the administrator assigning the chosen physician to the patient. *Id.* at ¶ 61.

Second, any of these options would have accomplished the necessary patient-to-physician assignment in Douglas’s system (*supra*) in a way that furthered

Douglas's desire for that system to be GUI-based and using the GUI components it already leverages. Douglas at 2:16-24 ("The present invention [] provides for [a] ... system ... through an integrated system of interactive graphical interfaces."); Bergeron at ¶ 62; *see also* Douglas at 3:24-5:20 (describing FIGs. 3-6 and 8-58 as "graphical representation[s]"), FIGs. 3-6 and 8-58. Indeed, as a POSITA would have understood, option (1)'s check boxes, option (2)'s drop-down menu, and both options' buttons were basic building blocks of such a GUI. Bergeron at ¶ 62 (citing Microsoft at 97, 239, and 79). *See also* Hall-Ellis at ¶¶ 53-58 (testifying, based on a MARC record and copyright registration for Microsoft, that Microsoft was publicly available on or shortly after June 10, 2002).

Although the claim states "assigning the client to one or more of providers," should PO argue that the claim requires multiple providers to be assigned to a patient, this would have been obvious. Bergeron at ¶ 63. Douglas's system is used to treat patients with a variety of diagnoses, including those with multiple—i.e., co-morbid—diagnoses. Douglas at FIGs. 2, 7; Bergeron at ¶ 63. Such patients would have benefited from having assigned physicians specialized in addressing those conditions, such as a cardiologist for a patient's heart conditions (*see* Douglas at FIG. 2 (Diagnostic Categories I-VII)), a psychiatrist for the patient's mental conditions (*see id.* at FIGs. 4 and 6, which show a baseline and goals for a patient's "Depression"), and a general practitioner to address the patient's general needs, such

as diet and exercise (*see id.* at FIG. 6, which show baselines and goals for, inter alia, a patient's "Physical Activity" and "Eating Habits"). Bergeron at ¶ 63.

(d) *Limitation 1[c]: determining, by the one or more providers, treatment and assistance for the client, which is used for establishing goals, a plan of action, and thresholds for the client, wherein the thresholds represent certain points of progress towards the goals;*

Douglas discloses determining, by the one or more providers, treatment and assistance for the client. Bergeron at ¶ 64. "[T]he physician ... can design a new program ... for [a] patient by selecting the system's Design option 50." Douglas at 7:29-32, FIG. 4. "[T]he system [then] prompts the physician ... to assign intensity levels 51 corresponding to the patient's diet, exercise, stress management, need for group support, anticipated compliance, and pharmaceutical requirements," as shown in FIG. 5 (reproduced below):

HeartLand 69 Fig 5

SCREEN 2 OF 3

Design a new program for: **Fred Smith** Date: **3/10/98**
Heartland I.D. #: **23-642** Social Security #: **213-48-3947**

INITIAL SCALE

	LOW	INTENSITY	HIGH
DIET	☐ 1	☐ 2	☒ 3
EXERCISE	☐ 1	☐ 2	☒ 3
STRESS MANAGEMENT	☐ 1	☒ 2	☐ 3
GROUP SUPPORT	☐ 1	☐ 2	☒ 3
DRUGS	☐ 1	☐ 2	☒ 3
COMPLIANCE	☐ 1	☐ 2	☒ 3

Based on your input, Heartland suggests the following program and goals for: **Fred Smith**

Diet	15%	Calories From Fat
Exercise	3/4	hr days per week
Stress Management	1/2	hr days per week
Group Support	1/2	hr days per week
Compliance Mgt. Freq.	4	times per Month
Smoking		Cessation
Drug -aspirin	325	mg/da
-hydrochlorothzid.	12.5	
-Lovastatin	20	

Program Detail ~ 54

Douglas FIG. 5

Douglas at 7:33-37; Bergeron at ¶ 64. “Based on the input information,” which includes the intensity levels as well as patient characteristics “such as age, sex, weight and information,” “the system ... generates a set of goals 52” for the patient as part of “a therapeutic program” for the patient. Douglas at 8:1-9, FIG. 5; Bergeron at ¶ 64. “The physician or case advisor may view details as to how the suggested goals may be implemented by selecting the system’s Program Detail option 54,” which shows “recommended one month goals 61 and final goals 62,” as shown in FIG. 6 (reproduced below):

HeartLand 70 Fig 6

Administration — HeartLand

File Edit View Insert Format Tools Table Window Help

MAIN MENU BACK

HeartLand Health Assessment Review

HINT: CLICK ON CATEGORY SEE DETAIL

SCREEN 3 OF 3

Based on your input, here is HeartLand's recommended program for: Fred Smith

Use the buttons to confirm or edit this program.

PATIENT STATUS & GOALS: DETAILS		Now 2/10/98	1 month Goal	GOALS
Name / D.O.B.	Fred Smith 2-5-49			
Starting Date	2/1/98			
Heartland I.D.	23-642			
Height / Sex	6'9" Male			
Weight	193	182	175	170
BMI	28.28	28.28	26.64	25.00
Smoke	.5 Packs/Day	.5	0	0
Physical Activity	0 / 0 / 0 minutes / x-week / RPE	20 / 3 / 3	25 / 5 / 4	4 / 6 / 8
Alcohol	2 Average Drinks per Day	2	1	1
Eating Habits	40 %Fiber/Complex Carb Intake	60	70	80
	40 %Fatty Food Intake	20	20	15
	40 %Fatty Dairy Intake	20	10	5
Calories	3,600	3,300	3,100	2,800
Fat Calories & %	45%	45%	20%	15%
Cholesterol - LDL	142	140 mg/dl	125 mg/dl	100 mg/dl
Cholesterol - HDL	35	37 mg/dl	39 mg/dl	45 mg/dl
Cholesterol	246 mg/dl	225	210	190
Resting Pulse Rate	88 Beats Per Minute	68	65	79
Stress	8.5 Scale of 1 to 10 (10 being high stress)	7.0	6.0	3.5
Depression	Scale of 1 to 10 (10 being greatest)	10	6	0
Blood Pressure	140/100 systolic/diastolic	140/100	130/90	130/90
Seatbelt Use	30 percent of time	50	75	100
Back Pain	Incidents per month	3	2	0
Pharmaceuticals				
- aspirin	325 mg	325 mg/da	325 mg/da	325 mg/da
- hydrochlorothz	12.5 mg	12.5 mg/da	12.5 mg/da	0 mg/da
- Lovastatin	20 mg	20 mg/da	20 mg/da	0 mg/da

CONFIRM

EDIT

OPTIONS...

Douglas FIG. 6

Douglas at 8:8-11; Bergeron at ¶ 64. “The physician ... may confirm 63 or edit 64 the suggested program to modify the goals by making appropriate selections.”

Douglas at 8:11-13; Bergeron at ¶ 64.

Mapping 1: Douglas’s disclosure of “[t]he physician ... confirm[ing] 63 or edit[ing] 64 the suggested program to modify the goals” is disclosure of determining, by the one or more providers, treatment and assistance for the client, whether the provider confirms the goals as consistent with that determination or edits them to be so. Douglas at 8:12-13; Bergeron at ¶ 65. Indeed, Douglas’s program provides

“goals 52,” “one month goals 61,” and “final goals 62” for, e.g., weight loss, smoking cessation, reduction of alcohol consumption, and dietary improvements. Douglas at 8:1-13, FIGs. 5, 6; Bergeron at ¶ 65. The presence of these goals in the program evidence that they are aspects for which the provider determined the patient needs treatment and assistance. Bergeron at ¶ 65.

Should PO argue that the determining by the provider of treatment and assistance for the patient requires more specific treatment or assistance, Douglas’s goals for pharmaceutical use reflect specific, provider-determined treatments, for addressing the patient’s medical conditions, including pain (“aspirin”), high blood pressure (“hydrochlorathzd.”), and high cholesterol (“Lovastatin”). Douglas at 8:1-9, FIGs. 5, 6; Bergeron at ¶ 66.

Such treatments, by addressing these medical conditions, also assist the patient. Bergeron at ¶ 67. Alternatively, to the extent a mapping for assistance for the patient is required to be distinct from treatment for the patient, Douglas’s “goal[] relating to ... group support” (Douglas at 8:1-9)—“1/2 hr 5 days per week” (*id.* at FIG. 5)—reflects a specific, provider-determined, and non-treatment assistance needed by the patient. Bergeron at ¶ 67 (support groups were and are not considered treatment).

Mapping 2: Douglas’s disclosure of the physician “assign[ing] intensity levels 51 corresponding to the patient’s diet, exercise, stress management, need for

group support, anticipated compliance, and pharmaceutical requirements” (Douglas at 7:33-37, FIG. 5) is disclosure of determining by the provider of treatment and assistance for the client, with—if required—treatment being specifically reflected by the provider’s assigning an intensity level for the patient’s pharmaceutical requirements, and assistance being specifically reflected by provider’s assigning an intensity level for the patient’s need for group support (*see supra* Mapping 1). Bergeron at ¶ 68.

Mappings 1 and 2: Douglas discloses the determined treatment and assistance being used for establishing goals and thresholds for the client, wherein the thresholds represent certain points of progress towards the goals. Bergeron at ¶ 69. Douglas explains that “[b]ased on the input information,” which can include the intensity levels (Mapping 2), “the system ... generates a set of goals 52 ... for the patient,” along with more-detailed “one month goals and final goals 62,” which “[t]he physician ... may confirm 64 or edit 64” (Mapping 1). Douglas at 8:1-13, FIGs. 5 and 6; Bergeron at ¶ 69.

Douglas’s “goals 52” and “final goals 62” correspond to the claimed goals, and Douglas’s “one month goals 61” correspond to the claimed thresholds representing certain points of progress toward the goals. Douglas at 8:1-13, FIGs. 5 and 6; Bergeron at ¶ 70. The claimed plan of action is met by Douglas’s overall

“therapeutic program” that includes the above goals. Douglas at 7:5-8:13; *see also* Douglas at 6:24-27. Bergeron at ¶ 70.

(e) ***Limitation 1[d]: periodically receiving updated data, from the one or more providers, about the status and/or well-being of the client;***

Douglas discloses receiving updated data, from the one or more providers, as “the system accepts updated patient data ... through data entered by the physician during office visits.” Douglas at 11:1-5, FIG. 60; *see also* claim 14, FIG. 41 (“Physician reported” blood pressure); Bergeron at ¶ 71. And such provider-entered, updated patient data is periodically received. Douglas at FIG. 60 (blocks 1030 and 1034), claims 11 and 14; Bergeron at ¶ 71.

Douglas also discloses that the updated data is about the status and/or well-being of the patient, given that “the system periodically correlates the updated patient health information with program goals to determine the patient’s progress and compliance with the program,” including its goals 52, 61, and 62, each of which are related to the status and/or well-being of the patient. Douglas at 11:6-12:2, FIGs. 60, 5, 6; Bergeron at ¶ 72. As specific examples of updated patient data, Douglas provides the patient’s blood pressure and weight (Douglas at 11:11-22), and both relate to the patient’s status and/or well-being. Bergeron at ¶ 72.

- (f) *Limitation 1[e]: compiling data associated with the client received from the one or more providers utilizing computing or communications devices in communication with the server, wherein the computing or communications devices represent devices communicating with the server from any of one or more networks, in order to determine progress of the client towards achieving the goals; and*

Douglas discloses compiling data associated with the client received from the one or more providers to determine progress of the client towards achieving the goals. The updated patient data, as discussed for Limitation 1[d], is collected over time—i.e., compiled—to determine progress of the patient toward achieving the goals. Bergeron at ¶ 73. Such patient data compilation is evidenced by “[t]he system generating reports on patient progress based on the data shown in FIGs. 40-45,” which depict various aspects of patient data collected over time, namely, blood pressure, smoking activity, physical activity, pulse, weight, stress level, medication intake, caloric intake, cholesterol level, and attitude toward change, charted against respective patient goals. Douglas at 20:3-37, FIGs. 40-45; *see also* Douglas at 20:14-19 (discussing FIGs. 41-44): “These graphs allow the physician ... to review and grasp the patient’s progress visually over a period of time, and ... determine how the patient is doing in relation to the ultimate goals.”); Bergeron at ¶ 73.

Douglas discloses that the compiled data is received from the provider utilizing computing or communications devices in communication with the server from a network, as the patient data is entered by the provider using a “PC 500 with

a Pentium microprocessor” (a computing device) that “is electronically linked to network server 508 via the Internet 518” (a network) using “a high-speed modem 506 [(a communications device)] connected to the PC 500.” Douglas at 24:3-26, FIG. 59; *see also* Douglas at 2:33-36, 11:3-5, 24:27-28, FIG. 60 (block 1034); Bergeron at ¶ 74. Indeed, the physician “ENTER[S] UPDATED PAT. HEALTH INFO ONLINE” (Douglas at FIG. 60), and Douglas explains that the entry of such patient health info is achieved “via [the physician’s] personal computer.” *See* Douglas at 6:31-33 (“The doctor may input these vital factors into the system directly via his or her personal computer.”); *see also* Douglas at 24:28-36, 11:3-5; Bergeron at ¶ 74.

With the patient data that is compiled being received from the provider via Douglas’s provider computing or communications devices (*supra*), such compilation or receiving “utilize[s]” those computing or communications devices. Bergeron at ¶ 75.

The compiled data is used to determine the patient’s progress toward meeting the goals, as explained *infra* in Limitations 1[f] and 1[g].

(g) *Limitation 1[f]: determining whether the thresholds associated with the goals are being met based on the compiled data; and*

Douglas discloses determining whether the thresholds associated with the goals are being met, as Douglas’s “system compares actual data about the patient

with the goals and parameters residing in the system’s database” and will “notify the physician or case advisor [if] these goals are not being met.” Douglas at 11:18-12:2; Bergeron at ¶ 76. Such goals include Douglas’s one-month goals 61, which are thresholds for Douglas’s final goals 62. *See* Limitation 1[c]. Douglas further discloses that this determination is based on the compiled data, given that “the system periodically correlates the updated patient health information [(i.e., compiled data),] with program goals to determine the patient’s progress and compliance with the program,” including its goals 52, 61, and 62. Douglas at 11:6-12:2, FIGs. 60, 5, 6; Bergeron at ¶ 76.

(h) *Limitation 1[g]: modifying the plan of action, by the one or more providers, in response to one or more of the thresholds not being met.*

Douglas discloses modifying the plan of action, by the one or more providers, in response to one or more of the thresholds not being met, as Douglas explains that if “these goals are not being met,” including Douglas’s one-month goals 61 or thresholds (*see* Limitation 1[c]), “the physician or case advisor may recommend that the program”—the plan of action (*see id.*)—“be modified to suit the patient’s condition.” Douglas at 11:18-25; Bergeron at ¶ 77. As an example, the “physician can [] determine whether to modify the program by altering the goals or moving the patient into a different diagnostic category.” Douglas at 11:26-34; Bergeron at ¶ 77.

3. ***Claim 2: The method according to claim 1, further comprising: automatically communicating alerts in response to the compiled data varying from one or more of the thresholds to become significant for the client.***

Douglas's system includes an "alarm" option" in which "[t]he system compares actual data about the patient with the goals and parameters residing in the system's database and automatically notifies the physician or case advisor ... if a health risk is present." Douglas at 11:11-15, FIG. 60. Specifically, Douglas discloses the identification of such a health risk—"a threatening situation"—based on "the difference between current data and goals." Douglas at 11:18-19; Bergeron at ¶ 78. Those goals include Douglas's one-month goals, which are thresholds for Douglas's final goals 62. *See* Limitation 1[c]; Bergeron at ¶ 78. Thus, Douglas discloses automatically communicating alerts in response to the compiled data varying from one or more of the thresholds ("difference between current data and goals," including one month goals 61 or thresholds) to become significant for the client ("present[s] a threatening situation"). Bergeron at ¶ 78.

4. ***Claim 4: The method according to claim 1, further comprising: establishing a baseline for the goals of the client.***

Douglas discloses establishing a baseline for the goals of the client. Bergeron at ¶ 79. Such a baseline is shown in Douglas's FIG. 4 patient record (reproduced below) that includes, in "second column 46 of the record," "baseline values corresponding to the ... beginning of his or her participation in the program":

HeartLand 68 Fig 4

Administration — HeartLand Provider/Case Advisor

File Edit View Insert Format Tools Table Window Help MAIN MENU BACK

HeartLand Health Assessment Review HINT: CLICK ON CATEGORY SEE DETAIL

SCREEN 1 OF 3

PATIENT STATUS & GOALS: DETAILS			Now 2/10/98	1 month Goal	GOALS
Name / D.O.B.	Fred Smith 2-5-49				
Starting Date	2/1/98				
Heartland I.D.	23-842				
Height / Sex	5'9" Male				
Weight	193	182			
BMI	28.28	28.28			
Smoke	.5 Packs/Day	.5			
Physical Activity	0 / 0 / 0 minutes / x-week / RPE	20 / 3 / 3			
Alcohol	2 Average Drinks per Day	2			
Eating Habits	40 % Fiber/Cmplx Carb Intake	80			
	40 % Fatty Food Intake	20			
	40 % Fatty Dairy Intake	20			
Calories	3,600	3,300			
Fat Calories & %	45%	1,500			
Cholesterol - LDL	142	140 mg/dl			
Cholesterol - HDL	35	37 mg/dl			
Cholesterol	246 m/dl	225			
Resting Pulse Rate	88 Beats Per Minute	68			
Stress	8.5 Scale of 1 to 10 (10 being high stress)	7.0			
Depression	Scale of 1 to 10 (10 being greatest)	10			
Blood Pressure	140/100 systolic/diastolic	140/100			
Seatbelt Use	30 percent of time	50			
Back Pain	Incidents per month	3			
Pharmaceuticals					
- aspirin	325 mg	325 mg/da			
- hydrochlorothzid.	12.5 mg	12.6 mg/da			
- Lovastatin	20 mg	20 mg/da			

EDIT DESIGN 50

Douglas FIG. 4

Douglas at 7:20-32; *see also* Douglas at FIG. 1; Bergeron at ¶ 79. These baseline values are for the goals of the patient, as evidenced by Douglas setting “a final goal[] 62” for each, shown in Douglas’s FIG. 6 (reproduced below):

HeartLand 70 *Fig 6*

Administration — HeartLand
Provider/Case Advisor

SCREEN 3 OF 3

Based on your Input, here is HeartLand's recommended program for: Fred Smith
Use the buttons to confirm or edit this program.

PATIENT STATUS & GOALS: DETAILS		Now 2/10/98	1 month Goal	GOALS
Name / D.O.B.	Fred Smith 2-5-49			
Starting Date	2/1/98			
Heartland I.D.	23-642			
Height / Sex	6'9" Male			
Weight	193	182	175	170
BMI	28.28	26.28	25.64	25.00
Smoke	5 Packs/Day	5	0	0
Physical Activity	0 / 0 / 0 minutes / x-week / RPE	20 / 3 / 3	25 / 6 / 4	4 / 6 / 8
Alcohol	2 Average Drinks per Day	2	1	1
Eating Habits	40 %Fiber/Complex Carb Intake	60	70	80
	40 %Fatty Food Intake	20	20	15
	40 %Fatty Dairy Intake	20	10	5
Calories	3,600	3,300	3,100	2,800
Fat Calories & %	45%	45%	20%	15%
Cholesterol - LDL	142	140 mg/dl	125 mg/dl	100 mg/dl
Cholesterol - HDL	35	37 mg/dl	39 mg/dl	45 mg/dl
Cholesterol	246 mg/dl	225	210	190
Resting Pulse Rate	88 Beats Per Minute	68	66	79
Stress	8.5 Scale of 1 to 10 (10 being high stress)	7.0	6.0	3.5
Depression	Scale of 1 to 10 (10 being greatest)	10	6	0
Blood Pressure	140/100 systolic/diastolic	140/100	130/90	130/90
Seatbelt Use	30 percent of time	60	75	100
Back Pain	Incidents per month	3	2	0
Pharmaceuticals				
- aspirin	325 mg	325 mg/ds	325 mg/ds	325 mg/ds
- hydrochlorothz.	12.5 mg	12.5 mg/ds	12.5 mg/ds	0 mg/ds
- Lovastatin	20 mg	20 mg/ds	20 mg/ds	0 mg/ds

CONFIRM
EDIT
OPTIONS...

Douglas FIG. 6

Douglas at 8:10-13; Bergeron at ¶ 79.

5. **Claim 5:** *The method according to claim 4, wherein the baseline is set based on tests, recorded activities, and general notes.*

Douglas discloses that the baseline is set based on tests, as Douglas's baseline values (see Claim 4) include "blood pressure readings ... and cholesterol levels." Douglas at 6:28-35, FIG. 4. As a POSITA would have understood, these were values set based on tests. MayoBP at 1-3 (characterizing both "manual blood pressure measurement" and "automated [blood pressure] measurement" as "blood pressure test[s]"); MayoC at 3 ("A cholesterol test is a blood test ..."); Bergeron at ¶ 80.

Douglas also discloses that the baseline is set based on recorded activities, as the baseline in Douglas also includes values for the “patient’s smoking habit, physical activity, alcohol and eating habits ...[,] and seatbelt use,” which are each recorded activities. Douglas at 7:22-28; Bergeron at ¶ 81.

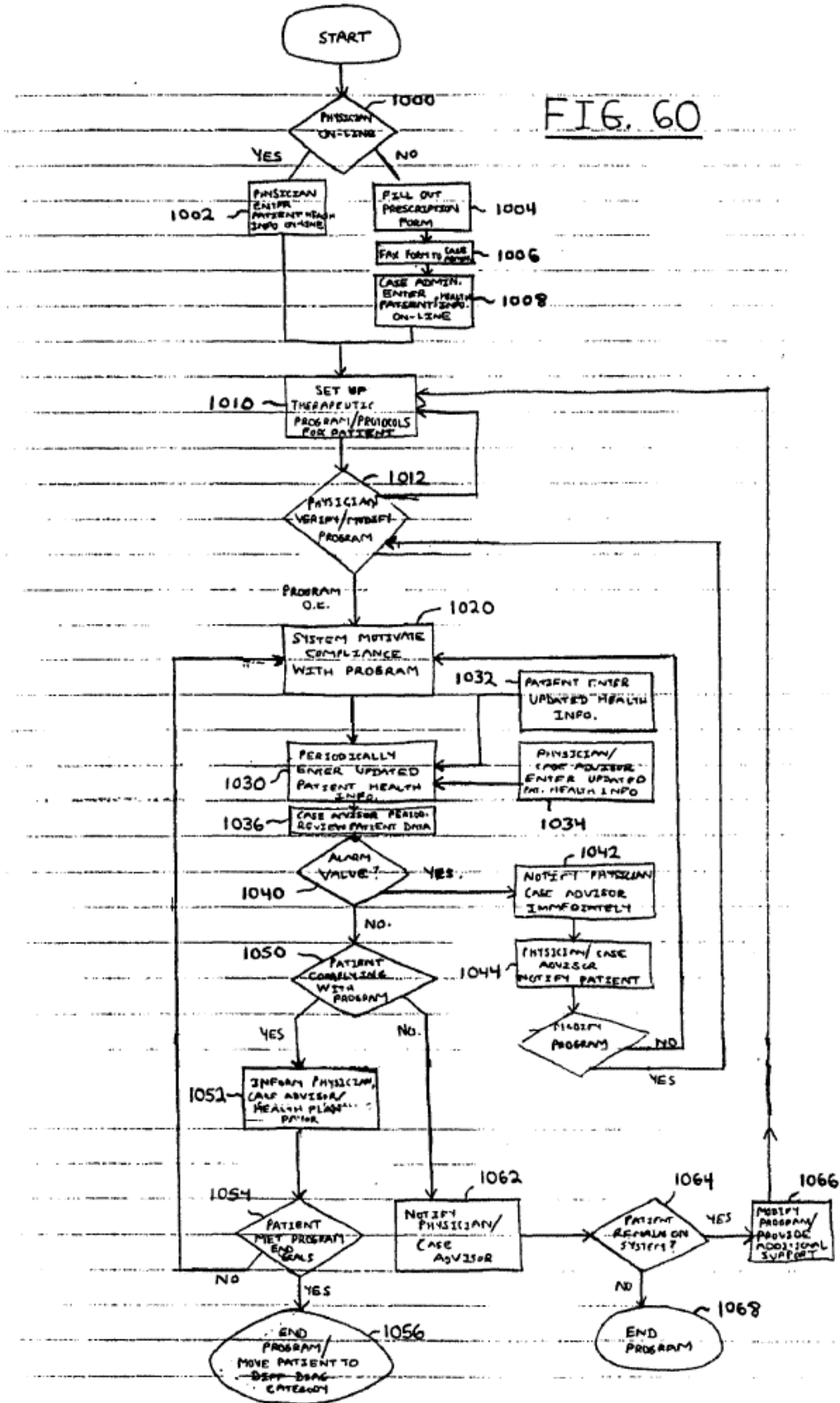
Finally, Douglas further discloses that the baseline is set based on general notes. Douglas’s prescription form allows the physician to note the patient’s “current and prescribed medications,” including “Comments/Changes” (Douglas at FIG. 2), which are general notes. Bergeron at ¶ 82. As a POSITA would have understood, these notes would have been used to set Douglas’s baseline values for the patient’s medication intake. Douglas at FIG. 4; Bergeron at ¶ 82. Indeed, Douglas’s FIG. 4 includes baseline values for aspirin, hydrochlorothiazide, and Lovastatin intake, but not other drugs such as Atenolol or Lisinopril, each of which is notable by the physician on FIG. 2’s prescription form. *Compare* FIG. 4 *with* FIG. 2; Bergeron at ¶ 82.

6. ***Claim 7: The method according to claim 1, further comprising: establishing the goals and the plan of action for the client utilizing goal creating and tracking software, wherein the data, goals, plan of action, compiled data, and thresholds are associated with the account of the client.***

Douglas discloses establishing the goals and the plan of action for the client utilizing goal creating and tracking software, as Douglas’s goals (“goals 52” and “final goals 62”) and plan of action (“therapeutic program”) (*see* Limitation 1[c])

are created by Douglas's "compliance monitoring and feedback system." Douglas at 5:24-25; Bergeron at ¶ 83. "FIG. 60 shows certain aspects of" that system, which is reproduced below:

FIG. 60



Douglas FIG. 60

Douglas at 5:24-25; Bergeron at ¶ 83.

Douglas discloses that “the system ... recommends a default set of goals based on the patient’s needs and existing medical protocols that may be modified by the physician.” Douglas at 7:17-20, FIG. 60; Bergeron at ¶ 84. These goals include “goals 52,” shown in FIG. 5’s “Design” interface, and “recommended one month goals 61 and final goals 62,” shown in FIG. 6’s “Program Detail” interface. Douglas at 7:29-8, 13, FIGs. 5, 6, 60; Bergeron at ¶ 84. Douglas’s system therefore establishes Douglas’s therapeutic program, including creating its goals. Bergeron at ¶ 84.

That system is also used to track the patient’s progress toward meeting the goals. Bergeron at ¶ 85. Specifically, at block 1050, “the system periodically correlates updated patient health information with the program goals to determine the patient’s progress and compliance with the program.” Douglas at 11:26-28 FIG. 60; Bergeron at ¶ 85.

Combined with the fact that Douglas’s compliance monitoring and feedback system is software, that system discloses the claimed goal creating and tracking software. *See, e.g.*, Douglas at 1:7-10, 2:16-27, 8:28-31, 25:5-13, 25:22-26. FIGs. 5, 6, 41-44; Bergeron at ¶ 86.

Finally, Douglas discloses that its data, goals, plan of action, compiled data, and thresholds are associated with the account of the client, as “[t]he system also enables direct feedback to the individual user,” allowing them to “view their levels of compliance and achievement of goals”—including Douglas’s disclosure of thresholds, goals, and thus plan of action—as well as “[s]ystem generated charts and summaries” that “provide patients with an overview of how far they have come,” encompassing Douglas’s disclosure of data and compiled data. Douglas at 12:3-7; Bergeron at ¶ 87.

7. *Claim 9: The method according to claim 1, further comprising: recommending a next goal in response to the client completing the goal.*

Douglas discloses recommending a next goal in response to the client completing the goal, as, if the “PATIENT MET PROGRAM END GOALS,” the patient can be “MOVE[D] TO DIFF. DIAG. CATEGORY.” Douglas at FIG. 60 (blocks 1054 and 1056); *see also* Douglas at 12:28-34; Bergeron at ¶ 88. And as Douglas explains, the “goals [of Douglas’s therapeutic program] vary depending on the patient’s diagnostic category.” Douglas at 8:14-19. This discloses, or at a minimum renders obvious, recommending a new goal for this patient consistent with his or her new diagnostic category, particularly because this patient met his or her current goals but is continuing to use Douglas’s goal-based system as a member of that new diagnostic category, for which the “goals vary.” Bergeron at ¶ 88.

8. ***Claim 10: The method according to claim 1, further comprising: determining whether the data required is received from each of the one or more providers; and sending an alert to the one or more providers in response to determining there is missing data for the client associated with the one or more providers.***

Douglas discloses sending an “alert” to a client’s provider should the client’s data indicate a “threatening” situation. *See* Section VIII.A.3 (Claim 2); Bergeron at ¶ 89. Given that client data may indicate a “threatening” or “potentially dangerous” situation (Douglas at 11:11-19), it would have been obvious for Douglas’s system to determine whether client data was missing and, if so, send an alert to the provider associated with the client. Bergeron at ¶ 89. Doing so would have encouraged the provider to enter the missing data (*see* Section VIII.A.2(e) (Limitation 1[d])), thereby allowing Douglas’s system to identify (and potentially uncover) a threatening or potentially dangerous situation indicated by the data. Bergeron at ¶ 89.

9. ***Claim 13***

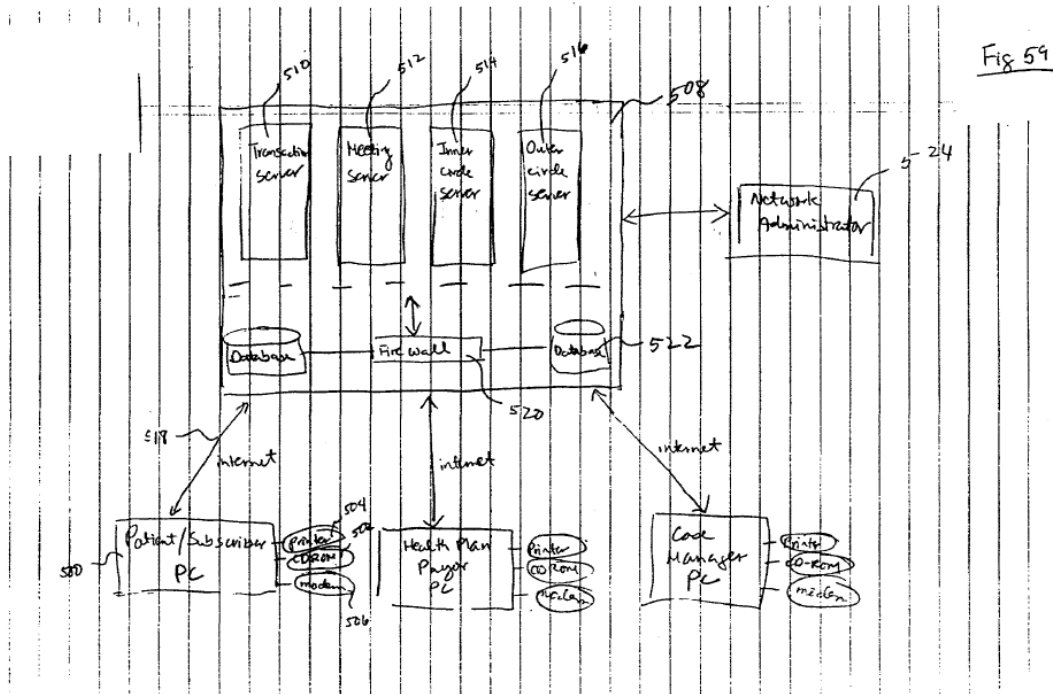
- (a) ***Limitation 13[p]: A system for tracking goal progression, the system comprising:***

See Limitation 1[p].

- (b) ***Limitation 13[a]: a server communicates with communications devices through a transceiver utilizing one or more networks, the server includes a processor that executes a client management program to:***

Douglas discloses that its system includes a server that communicates with communications devices utilizing one or more networks, as Douglas discusses

“PC[s] 500 electronically linked to network server 508 via the Internet 518,” shown in Douglas’s FIG. 59 (reproduced below):



Douglas FIG. 59

Douglas at 24:12-34; Bergeron at ¶ 91. Such PCs include those for “patients, physicians, case advisors, and health plan payors.” Douglas at 24:3-6; Bergeron at ¶ 91. These PCs are communications devices, as they communicate with the server. Douglas at 24:22-27, 24:27-34; Bergeron at ¶ 91.

The communications between PCs 500 and network server 508 were also through a transceiver, which a POSITA would have understood to be “[a] device that can both transmit and receive signals.” Microsoft at 527; Bergeron at ¶ 92. Indeed, Douglas discloses that PCs 500 transmit signals that are received by network

server 508, and the network server transmits signals that are received by the PCs, indicating the presence of a transceiver at each of the PCs and the network server for transmitting and receiving the communications. Douglas at 24:27-34; Bergeron at ¶ 92. Specific transceivers that Douglas discloses—any one or more of which meet the claimed transceiver—include “high-speed modem 506 connected to the PC 500” (Douglas at 24:22-24) and transceivers for establishing a “cellular connection [or] satellite link ... [with the] network server” (Douglas at 8:28-31). Bergeron at ¶ 92.

Douglas further discloses a client management program, specifically, Douglas’s “therapeutic behavior modification program’s compliance monitoring and feedback system.” Douglas at 5:22-25, FIGs. 59 and 60; Bergeron at ¶ 93. That system manages a patient in that it:

- provides for the creation of a patient account (Douglas at 6:33-35, FIG. 60 (block 1008));
- “recommends a default set of goals based on the patient’s needs and existing medical protocols that may be modified by the physician” (*id.* at 7:17-20, FIG. 60 (blocks 1010, 1012));
- “assists [the patient] in complying with his or her behavior modification program” (*id.* at 8:28-29, FIG. 60 (block 1020));

- “periodically correlates [] updated patient health information with the program goals to determine the patient’s progress and compliance with the program” (*id.* at 11:26-28, FIG. 60 (block 1050)); and
- “informs the physician” regarding the patient’s progress or lack thereof, who then “determines whether to modify the patient’s therapeutic program, provide the patient with additional support, or remove the patient from the system” (*id.* at 11:28-12:2, FIG. 60 (1052, 1062)). Bergeron at ¶ 93.

Douglas’s system is software and therefore a processor executes the system. Douglas at 25:22-26, 3:10-13, 2:25-27; Bergeron at ¶ 93.

A POSITA would have understood that Douglas’s compliance monitoring and feedback system resided on Douglas’s network server 508 and so did the processor that executed it, and thus Douglas discloses the server including the processor. Bergeron at ¶ 94.

First, as Douglas explains, network server 508 includes an “‘inner circle’ server 515” that “is dedicated to handle sensitive data, such as medical records.” Douglas at 24:13-19, FIG. 59; Bergeron at ¶ 95. Such handling of sensitive medical records is what the relied-on portions of Douglas’s system do. *See, e.g., infra* Sections VIII.A.9(c) and VIII.A.9(d) (Limitations 13[b] and 13[c]) (setting up an account and assigning a patient to a physician based on the patient prescription form

that includes medical data of the patient), VIII.A.9(e)-VIII.A.9(h) (Limitations 13[d]-13[g]) (based on that medical data and updates to the same, setting and determining the patient's progress toward goals and responding accordingly); Bergeron at ¶ 95. A POSITA would have thus understood, per Douglas, that these relied-on portions of Douglas's system are implemented by "inner circle" server 515 of network server 508. Bergeron at ¶ 95.

Second, as Douglas explains, patients, physicians, case advisors, and health plan payors must log into the system to use or access it, further indicating its implementation on network server 508. Douglas at 8:29-31 ("To use the program, the patient logs into the system network via ... connection into a network server."), 19:27-30 ("log-on screen 220 ... for a physician/case advisor ... ensur[es] that only legitimate users are able to gain access to the system"), 25:5-11, FIG. 59; Bergeron at ¶ 96.

Nevertheless, it also would have been obvious for the processor implementing Douglas's system to reside in network server 508. To begin, network server 508 includes "one or more relational databases 522 (such as SQL) that contain all the health plan data" and "all the information needed by a user of the system." Douglas at 24:28-25:4; *see also* Douglas at FIG. 59; Bergeron at ¶ 97. Given that a patient on Douglas's system and their physician—both users of that system—each need access to the patient's health data over time (*see* Douglas at FIGs. 41-44 (charts of a

patient's data over time, which are provided to the patient and physician (*id.* at 20:14-19, 12:3-7))), a POSITA would have understood, per Douglas, that such health data was stored in databases 522. Bergeron at ¶ 97; *see also* Douglas at 24:32-33 (“Information,” such as patient health data, “will also be uploaded to the [] server”). And Douglas's system makes periodic use of that health data. *See, e.g.,* Douglas at 11:26-28, FIG. 60; Bergeron at ¶ 97.

Therefore, a POSITA would have understood that locating the processor implementing Douglas's system in the server containing the health data upon which that system operated—databases 522 of network server 508—would have achieved Douglas's goal of “protect[ing the] confidentiality of health plan data.” Douglas at 25:14-16; *see also* Douglas at 10:7-9, 19:29-30, 22:12-14, 24:18-19, 25:5-9; Bergeron at ¶ 98. In this arrangement, the health data could remain behind firewall 520 that “protects confidentiality of health plan data” (Douglas at 25:14-16, Douglas at 59 (showing databases 522 behind firewall 520)), while it was “correlate[d] ... with the program goals” (Douglas at 11:26-28) as opposed to being transmitted outside of that firewall for such correlation. Bergeron at ¶ 98.

- (c) ***Limitation 13[b]: receive input, by an administrator, for establishing an account for one or more providers serving a client, wherein the client is an individual receiving treatment or assistance, and wherein the accounts are stored in a server available through one or more networks***

Mapping 1: Douglas’s discussion of account set-up based on input from the case administrator (*see* Section VIII.A.2(b) (Limitation 1[a])) also discloses setting up an account for one or more providers serving the client, in that the physician makes use of the account to treat the patient. Bergeron at ¶ 99. Indeed, “[t]he system provides specific feedback to the physician so that he or she can modify or update the [patient’s] program as the patient progresses” (Douglas at 3:13-14), “the patient’s record may be updated on an ongoing basis by taking data from the patient ... from subsequent office visits” (*id.* at 7:28-32), “[t]he physician ... can use the information provided in the [patient’s] journal to update the program on an on-going basis” (*id.* at 10:31-36), and “the system accepts updated patient data ... through data entered by the physician during office visits” (*id.* at 11:1-5). Bergeron at ¶ 99. This understanding of an account for one or more providers [i.e., physician] serving a client [i.e., patient] is also consistent with Claim 13 itself, which later in Limitation 13[h], refers to that same account as being an account associated with the client and the one or more providers. Bergeron at ¶ 99.

Mapping 2: Douglas discloses that “[a] network administrator 524, who may be the case administrator ... subscribes all users to the system except for clinical or

wellness group participants.” Douglas at 25:17-19; Bergeron at ¶ 100. Given that a physician is a user of Douglas’s system (Douglas at 19:27-30, 25:5-9) and is not a clinical or wellness group participant, which is instead a patient (*id.* at 6:6-14), the network administrator subscribes the physician to the system. Bergeron at ¶ 100. This disclosure of receiving input is by an administrator. Bergeron at ¶ 100.

And that input is for establishing an account for one or more providers, i.e., a physician. Bergeron at ¶ 101. Indeed, once so-subscribed, the physician “log[s]-on” using “their name 222 and corresponding password 224 ... to gain access to the system” (Douglas at 19:27-30, FIG. 38; *see also* Douglas at 25:5-11, FIG. 36); i.e., using their account. Bergeron at ¶ 101.

For the same reasons described in Section VIII.A.2(b) (Limitation 1[a]) for the patient account, the provider account is stored on Douglas’s network server 508, and thus stored in a server available through one or more networks. Further, the client is an individual receiving treatment or assistance. Bergeron at ¶ 102.

(d) *Limitation 13[c]: assign the client to one or more of the providers in response to selections from the administrator, wherein the one or more providers include at least individuals available to treat or assist the client*

Mapping 1 from Limitation 13[b]: *See* Section VIII.A.2(c) (Limitation 1[b]).

Mapping 2 from Limitation 13[b]: The network administrator that sets up the provider account “may be the case administrator” (Douglas at 25:17-18) that

therefore also “sets up a new patient based on information contained in the patient prescription form” (*id.* at 7:11-20). Bergeron at ¶ 104. And as explained in Section VIII.A.2(c) (Limitation 1[b]), Douglas discloses or renders obvious the claimed case administrator’s assignment of the patient to their physician. Bergeron at ¶ 104.

- (e) ***Limitation 13[d]: determine, by the one or more providers, treatment and assistance for the client, which is used to establish goals, a plan of action, and thresholds for the client, wherein the thresholds represent certain points of progress towards the goals***

See Section VIII.A.2(d) (Limitation 1[c]).

- (f) ***Limitation 13[e]: compile data associated with the client received from the providers utilizing computing or communications devices in communication with the server***

See Section VIII.A.2(f) (Limitation 1[e]).

- (g) ***Limitation 13[f]: determine whether the thresholds associated with the goals are being met based on the compiled data***

See Section VIII.A.2(g) (Limitation 1[f]).

- (h) ***Limitation 13[g]: modify the plan of action, by the one or more providers, in response to one or more of the thresholds not being met***

See Section VIII.A.2(h) (Limitation 1[g]).

- (i) ***Limitation 13[h]: a database in communication with the server configured to store the data, goals, plan of action, compiled data, and thresholds with the account associated with the client and the one or more providers.***

Douglas discloses that network server 508 includes “one or more relational databases 522 (such as SQL) that contain all the health plan data” as well as “[a]ll the information needed by a user of the system.” Douglas at 24:28-37; Bergeron at ¶ 109. Such includes data and compiled data. *See* Section VIII.A.9(b) (Limitation 13[a]). It also includes Douglas’s disclosure of goals, plan of action, and thresholds, given that: (1) they are needed by users—patients and physicians—of Douglas’s system (Douglas at 12:3-7 (“users may view their levels of compliance and achievement of goals”), 8:11-13 (“The physician ... may edit 64 the suggested program to modify the goals....”); *see also* Section VIII.A.2(d) (Limitation 1[c]) (explaining mappings to goals, plan of action, and thresholds)); and (2) they reflect confidential health plan data that a POSITA would have therefore understood resided behind firewall 520 that “protects confidentiality of health plan data” (Douglas at 25:14-16, Douglas at FIG. 59). Bergeron at ¶ 109.

Douglas’s database(s) 522 also include an account associated with the client and the one or more providers. *See* Section VIII.A.9(c) (Limitation 13[b], including Mapping 1 or Mapping 2); Bergeron at ¶ 110.

- 10. Claim 15: The system according to claim 13, wherein the client management program further establishes a baseline for the goals of the client, wherein the baseline is set based on tests, recorded activities, and general notes.**

Douglas discloses establishing a baseline for the goals of the patient (see Section VIII.A.4 (Claim 4)) using a client management program. See Section VIII.A.9(b) (Limitation 13[a]); Douglas at 6:28-35, 7:17-32; Bergeron at ¶ 111. That baseline is set based on tests, recorded activities, and general notes. See Section VIII.A.5 (Claim 5). Bergeron at ¶ 111.

11. Claim 17

- (a) Limitation 17[p]: A server comprising**

See Section VIII.A.9(b) (Limitation 13[a]) (network server 508).

- (b) Limitation 17[a]: a processor for executing a set of instructions**

Douglas discloses or renders obvious a processor within network server 508 for executing a set of instructions for implementing Douglas's system. See Section VIII.A.9(b) (Limitation 13[a]).

- (c) Limitation 17[b]: a memory for storing the set of instructions, wherein the set of instructions are executed by the processor to**

As a POSITA would have understood, Douglas discloses a memory in network server 508 for storing the set of instructions that the server's processor executes to implement Douglas's system. See Section VIII.A.9(b) (Limitation 13[a]); Bergeron at ¶114. A POSITA would have known that a processor required

a memory—at a minimum, RAM—to store the instructions that the processor executed. Bergeron at ¶ 114.

Should PO disagree, the use of a memory to store software was within a POSITA’s general knowledge. Bergeron at ¶ 115. Chitiveli, for instance, discloses that his server includes a “memory 230 including the content analytics tool” (Chitiveli at ¶¶ [0044]-[0046], FIG. 2), which—like Douglas’s compliance monitoring and feedback system—analyzes patient data (*id.* at ¶ [0019]). *See also infra* Section VIII.C.1; Bergeron at ¶ 115. This general knowledge, reflected by Chitiveli, is mappable to the claimed memory. *Koninklijke Philips N.V.*, 948 F.3d at 1337. And using such a memory to store Douglas’s system amounts to nothing more than the obvious use of the memory to perform its established, software-storing function. *KSR Int’l Co.*, 550 U.S. at 401; *see* Chitiveli at ¶¶ [0044]-[0046], FIG. 2; Bergeron at ¶ 115.

- (d) ***Limitation 17[c]: receive input, by an administrator, for establishing an account for one or more providers serving a client, wherein the client is an individual receiving treatment or assistance, and wherein the accounts are stored in a server available through one or more networks***

See Sections VIII.A.9(c) and 9(b) (Limitations 13[b] and 13[a]).

- (e) ***Limitation 17[d]: assign the client to one or more of the providers in response to selections from the administrator, wherein the one or more providers include at least individuals available to treat or assist the client***

See Sections VIII.A.9(d) and 9(b) (Limitations 13[c] and 13[a]).

- (f) ***Limitation 17[e]: determine, by the one or more providers, treatment and assistance for the client, which is used to establish goals, a plan of action, and thresholds for the client, wherein the thresholds represent certain points of progress towards the goals***

See Sections VIII.A.9(e) and 9(b) (Limitations 13[d] and 13[a]).

- (g) ***Limitation 17[f]: periodically receive updated data about the status and/or well-being of the client from the providers, about the status and/or well-being of the client***

See Sections VIII.A.2(e) and 9(b) (Limitations 1[d] and 13[a]).

- (h) ***Limitation 17[g]: compile data associated with the client received from the providers utilizing computing or communications devices in communication with the server, in order to determine progress of the client towards achieving the goals***

See Sections VIII.A.9(f) and 9(b) and (Limitations 13[e] and 13[a]).

- (i) ***Limitation 17[h]: determine whether the thresholds associated with the goals are being met based on the compiled data; and***

See Sections VIII.A.9(g) and 9(b) (Limitations 13[f] and 13[a]).

- (j) ***Limitation 17[i]: modify the plan of action, by the provider, in response to determining whether the one or more thresholds are not being met.***

See Sections VIII.A.9(h) and 9(b) (Limitations 13[g] and 13[a]).

B. Ground 2 – Douglas and Wager Render Obvious Claims 1, 2, 4, 5, 7, 9, 10, 12, 13, 15, and 17

1. Wager Overview

Wager is directed to “a system and method for a management interface which presents a manager with an intuitive, visual interface for generating patient-to-care provider assignments, including capacity computation, skill set matching, [and] ratio management.” Wager at ¶ [0003]; *see also* Wager at Title, Abstract; Bergeron at ¶ 123. An exemplary “workforce management interface 106” is shown in Wager’s FIG. 2, reproduced below:

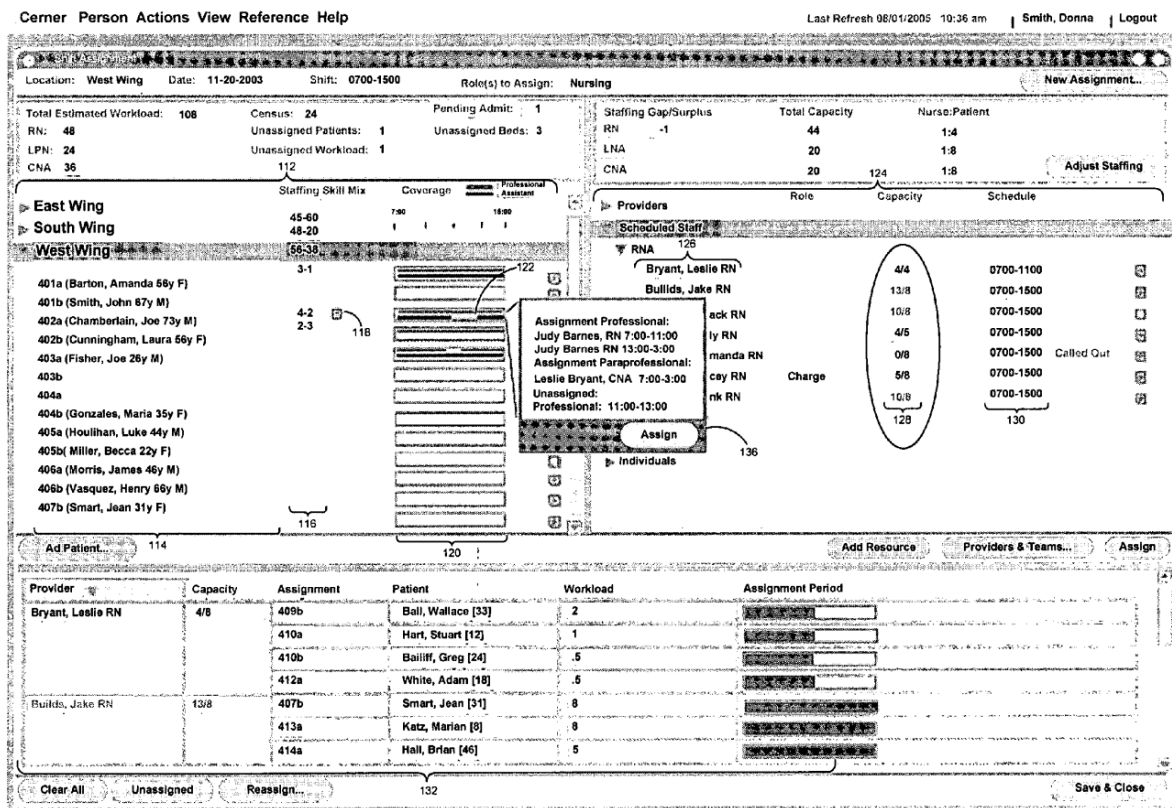


FIG. 2

Wager at ¶ [0011]; Bergeron at ¶ 123.

As Wager explains, a “staff manager” associated with “a hospital or other clinical care facility” can “operate the workforce management interface 106 to ... generate care provider-to-patient assignments,” where those providers include “nurses, therapists, technicians, physicians, interns, or other clinical or other personnel whose responsibilities or activities are directed to or associated with patients.” Wager at ¶ [0011]; Bergeron at ¶ 124. Workforce management interface 106 includes a “patient population profile 112,” which includes “a patient list 114” associating individual patients with “a patient needs rating 116 indicating the rated amount of workload or work effort represented by a patient’s care” and “a set of skill criteria 118 ... indicating that the care of a particular patient requires specialized training, certification or skills.” Wager at ¶ [0012]; Bergeron at ¶ 124. “[T]he workforce management interface 106 may likewise include ... a provider population profile 124 which may contain a provider list 126” associating individual providers with “provider capacity ratings 128 which may indicate a given ... [provider’s] capacity to undertake patient care” that “may include or incorporate a scaling or adjustment factor to take a given provider’s experience level, specialized training, patient continuity and other factors into account.” Wager at ¶ [0014]; Bergeron at ¶ 124. “Provider population profile 124 ... may further include a provider schedule” for each provider “indicating a provider’s availability ... for [certain] times or periods.” Wager at ¶ [0015]; Bergeron at ¶ 124.

Using Wager's workforce management interface 106, "the ... staff manager may assess or determine the clinical care needs of patients," including "specialized skills criteria 118," and "assess and determine available care providers and their projected or estimated capacities, skill sets and other information or qualifications to service the patient population." Wager at ¶¶ [0018]-[0021]; Bergeron at ¶ 125. Proper assignments of the care providers to the patients are facilitated by matching the patients' time- and skill-needs to the care providers' capacities and skill sets. Wager at ¶¶ [0018]-[0022]; Bergeron at ¶ 125. Those assignments can be accomplished by "the staff manager ... selecting or highlighting a nurse, therapist, technician or other from provider list 126 and dragging that name or other object on top of a patient name in the patient list 114." Wager at ¶ [0021]; Bergeron at ¶ 125.

2. Modification of Douglas

Douglas's system is used to treat patients with a variety of needs, ranging from patients "who have suffered from a heart attack within the current year" to patients who "are on the plan simply to promote wellness." Douglas at 6:36-7:4; *see also* Douglas at 6:6-14; Bergeron at ¶ 126. Consistently, Douglas's physicians treating those patients have varied skill sets. *See* Douglas at FIG. 57 (showing "Specialty[s]" of "Cardio" and "Primary"); Bergeron at ¶ 126.

Should it be found that Douglas does not disclose or render obvious the case administrator's assignment of the patient to a physician based on the administrator's

selections (*see* Section VIII.A.2(c) (Limitation 1[b])), it would have been obvious to modify Douglas's system to include an interface like Wager's that provided the administrator with "an intuitive, visual interface for generating patient-to-care provider assignments, including capacity computation, skill set matching, [and] ratio management" (Wager at ¶ [0003]) through which the administrator assigned the patient to a physician. Bergeron at ¶ 127. The resulting system is referred to as the Douglas-Wager System.

3. *Motivation to Combine*

Doing so would have helped ensure that the assigned physician was equipped, in terms of skill set, to treat the patient, particularly in view of Douglas's patients having varied needs and Douglas's physicians having varied skill sets (*supra* Section VIII.B.2). Bergeron at ¶ 128. This is explicitly taught by Wager, whose "invention overcome[s] ... problems," including "the unit or other managers ...[needs to] rely on manual notes, memory and institution to ... make appropriate provider-to-patient assignments," by the "staff manager [being] presented with a suite of provider assignment options and alternatives, to automatically organize and drive assignment ratios and other assignment parameters and options with compliance, capacity, best practice and other criteria taken into account." Wager at ¶¶ [0006]-[0007]; Bergeron at ¶ 128.

The Douglas-Wager System would have also helped ensure that the assigned physician had the capacity to effectively treat the patient. Bergeron at ¶ 129. Evidenced by Douglas’s FIG. 51, there are many patients on Douglas’s system. Douglas at FIG. 51 (“12,984” patients on the program); Bergeron at ¶ 129. And those patients were not evenly distributed amongst physicians. *See* Douglas at FIG. 57; Bergeron at ¶ 129. As a POSITA would have understood, a physician’s capacity to tend to a patient decreases as the number of patients that the physician treats increases. Bergeron at ¶ 129. Through use of Wager’s interface, such capacity issues “may be more effectively managed against fluctuating clinical demands” (Wager at ¶ [0006]; *see also* Wager at ¶¶ [0008], [0020]), ultimately increasing quality of care for the patient. Bergeron at ¶ 129.

4. *Claims 1, 2, 4, 5, 7, 9, 10, 13, 15, and 17*

The mappings to Claims 1, 2, 4, 5, 7, 9, 10, 13, 15, and 17 for Ground 2 are the same as for Ground 1 (*see* Section VIII.A), excepting Limitations 1[b], 13[c], 17[d], changes to which are addressed below. Bergeron at ¶ 130.

- (a) *Limitation 1[b]: assigning the client to one or more of providers in response to selections from the administrator, wherein the one or more providers include at least individuals available to treat or assist the client;*

In the Douglas-Wager System (*see* Sections VIII.B.2-3), the case administrator would assign to the patient a physician having capacities and skill sets that matched the patient’s time- and skill-needs.³ Bergeron at ¶ 131.

The Douglas-Wager System also discloses the assignments being in response to selections from the administrator—i.e., of the patient and of the physician to be assigned to the patient. Bergeron at ¶ 132. These assignments would have each been performed by “selecting or highlighting a nurse, therapist, technician or other from provider list 126 and dragging that name or other object on top of a patient name in the patient list 114” (Wager at ¶ [0021]). This is disclosure of selections from the administrator, i.e., selections to indicate the provider and the patient (*id.* (“dragging” the provider’s name “on top of a patient name” constitutes “a patient [being] selected”)). Bergeron at ¶ 132.

³ Or multiple physicians, should PO argue that such is required (*see* Section VIII.A.2(c) (Limitation 1[b])), at least to address a patient’s various needs. *See* Wager at ¶¶ [0118], [0020] (emphasizing that providers’ skill sets need to be matched to a patient’s needs); Bergeron at ¶ 131.

- (b) *Limitation 13[c]: assign the client to one or more of the providers in response to selections from the administrator, wherein the one or more providers include at least individuals available to treat or assist the client,*

See Section VIII.B.4(a).

- (c) *Limitation 17[d]: assign the client to one or more of the providers in response to selections from the administrator, wherein the one or more providers include at least individuals available to treat or assist the client;*

See Section VIII.B.4(a).

5. *Claim 12: The method according to claim 9, further comprising: matching the client with a provider from the one or more providers for the next goal.*

See Section VIII.A.7 (Claim 9).

It would have been obvious to use the Douglas-Wager System interface to match the client with a provider from the one or more providers for the next goal. For example, when a patient was moved from a diagnostic category requiring a cardiologist (*see* Douglas at FIG. 2 (diagnostic categories I-VI relate to heart ailments best addressed by a cardiologist)) to one not requiring that specialty (*see id.* (diagnostic category VIII relates to “Health and Wellness;” *see also id.* at 6:10-23)), it would have freed up the patient’s former cardiologist to treat other patients while meeting that patient’s changed goals. *See* Wager at ¶¶ [0018], [0020] (emphasizing that providers’ skill sets need to be matched to a patient’s needs); Bergeron at ¶ 136.

C. Grounds 3 and 4 – Douglas and Chitiveli (Ground 3), and Douglas, Wager, and Chitiveli (Ground 4) Render Obvious Claim 6

1. Chitiveli Overview

Chitiveli discloses “techniques for a software as a service (SaaS) provider to host a content analytics tool to evaluate data collections for multiple customers.” Chitiveli at ¶ [0014]. Chitiveli FIG. 1 (reproduced below) “illustrates an example computing infrastructure 100” embodying those techniques:

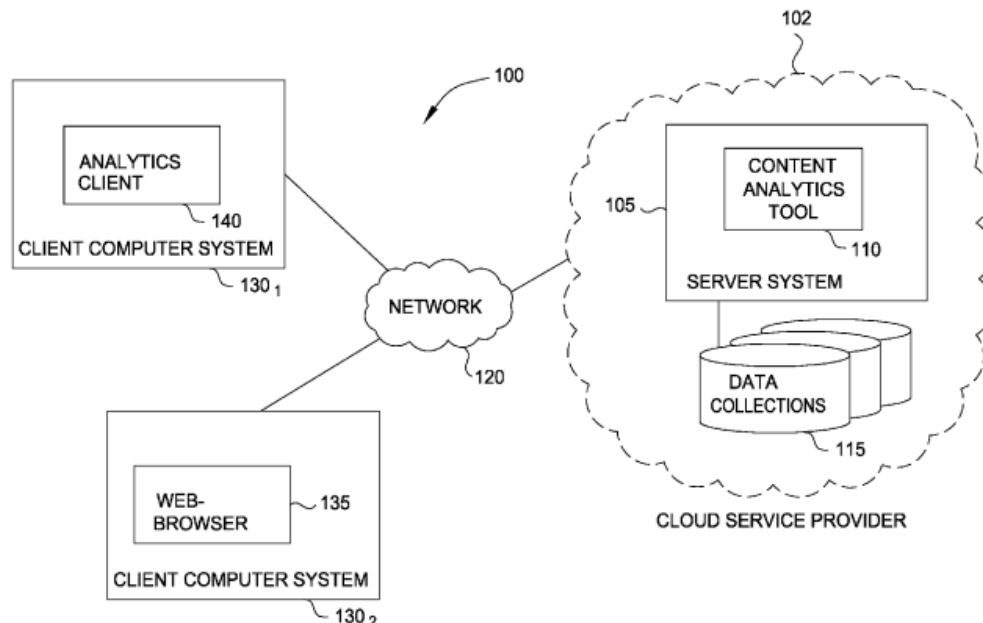


FIG. 1

Chitiveli at ¶ [0035]; Bergeron at ¶ 137. That computing infrastructure includes “a cloud based service provider 102 hosting a server system 105 and also includes computing client systems 130₁₋₂, all of which are connected to a communications network 120.” Chitiveli at ¶ [0035]; Bergeron at ¶ 137. Client computing system 130₁ “execute[s] an analytics client 140” and client computing system 130₂

“execute[s] a web browser 135” to “communicate with a content analytics tool 110 on the server system 105.” Chitiveli at ¶ [0036]; Bergeron at ¶ 137. Using the analytics client or the web browser, a user can “upload enterprise data associated with a given tenant as well as access the resulting data collections 115 hosted by the service provider 102.” Chitiveli at ¶ [0036]; Bergeron at ¶ 137. Content analytics tool 110 then performs “analytical processing” on the uploaded data to “generate periodic reports ... or dynamically generate insights as new data is provided to the content analytics tool 140.” Chitiveli at ¶ [0037]; Bergeron at ¶ 137.

While Chitiveli’s computing infrastructure 100 is usable in many fields, Chitiveli expressly discloses its use in the medical field to analyze patient data. Chitiveli at ¶¶ [0019], [0020], [0034], [0042], [0048], [0054], [0063], FIG. 7; Bergeron at ¶ 138.

2. *Modification of Douglas*

Like Chitiveli’s content analytics tool 110, Douglas’s compliance monitoring and feedback system:

- resides on a server (Chitiveli at FIG. 1; *see* Section VIII.A.9(b) (Limitation 13[a]));
- receives data from client devices such as a “desktop or laptop computer systems” (Chitiveli at ¶ [0036]; *see* Section VIII.A.2(f) (Limitation 1[e])); and

- analyzes that data to “generate periodic reports on the analyzed data to monitor progress on identified issues” (Chitiveli at ¶ [0037]; *see* Sections VIII.A.2(f)-2(h) (Limitations 1[e]-1[g])). Bergeron at ¶ 139.

It would have been obvious to implement Douglas’s system using a SaaS provider like Chitiveli discloses for his content analytics tool, with Douglas’s network server 508 implemented on a cloud network (Chitiveli at ¶ [0035], FIG. 1), and Douglas’s PCs 500 executing client applications to upload patent data to that server for analysis using Douglas’s system (*id.* at ¶¶ [0036]-[0037])). Bergeron at ¶ 140. The resulting system is referred to as the Douglas-Chitiveli System.

3. *Motivation to Combine*

As a POSITA would have recognized, such modification would have provided several benefits. Bergeron at ¶ 141. First, it would have reduced overhead by eliminating the need to procure, maintain, and find space for the network server or to maintain Douglas’s system. Chitiveli at ¶ [0031] (cloud computing allows “computing resources ... [to] be rapidly provisioned and released with minimal management effort” and accessed “without regard for the underlying physical systems (or locations of those systems)”; NetSuite at 1 (“Upgrades, maintenance and system administration take place in the cloud and are managed by the vendor, so you don’t have to spend nights or weekends”). Bergeron at ¶ 141. Second, it would have provided increased availability of Douglas’s system. NetSuite at 1

(“Cloud software architectures ... frequently deliver better application-level availability than conventional, on-premise solutions.”); Bergeron at ¶ 142. Third, using a cloud service provider would have resulted in increased security (NetSuite at 1 (“the level of security ... provided by a software-as-a-service provider far exceeds that which [a company] can provide themselves”)), which is a focus of Douglas (Douglas at 25:5-9 (discussing “three levels of security implementation”)). Bergeron at ¶ 142. Fourth, it would have saved costs—“eliminating the need for on-premise hardware, cloud computing reduces overall server room electric consumption as well.” NetSuite at 1; Bergeron at ¶ 142.

Should PO argue that an independent rationale is required to use a client application like Chitiveli’s analytics client 140 in the Douglas-Chitiveli System, this represents no more than the predictable use of a client application like Chitiveli’s to do the same thing that it does in Chitiveli. *KSR Int’l Co.*, 550 U.S. at 401; Bergeron at ¶ 143. In the combination, that client application would continue to perform its Chitiveli-disclosed functions of allowing a client to: (1) “upload enterprise data” in the form of Douglas’s updated patient data; (2) “access the resulting data collections” in the form of Douglas’s compiled patient data; (3) receive “periodic reports on the analyzed data from” a “content analytics tool 110” in the form of periodic reports from Douglas’s system. Chitiveli at ¶¶ [0036]-[0037]; Bergeron at ¶ 143.

4. ***Claim 6: The method according to claim 1, wherein the server is accessed through a cloud network, and wherein a client management program is executed by the computing or communications devices is utilized to receive the data and track progress of the goals.***

Ground 3: See Section VIII.A.2 (Claim 1).

Ground 4: See Section VIII.B.4 (Claim 1).

Grounds 3 and 4: See Sections VIII.C.2-VIII.C.3. The Douglas-Chitiveli System discloses that the server is accessed through a cloud network, since Douglas's network server 508 would have been implemented on, and thus accessed through, a cloud network, as in Chitiveli. Bergeron at ¶ 146. The Douglas-Chitiveli System also discloses that a client management program is executed by the computing or communications devices and is utilized to receive the data and track progress of the goals, since, in the system, PCs 500 used by physicians to transmit patient data to the network server for tracking patients' progress toward their goals in Douglas (see Section VIII.A.2(f) (Limitation 1[e])) would have done so using a client application like Chitveli's analytics client 140. Bergeron at ¶ 146. Such client applications disclose the claimed client management program, and they are utilized in the combination so that Douglas's system can receive the data and track progress of the goals. Bergeron at ¶ 146.

D. Grounds 5 and 6 – Douglas and Klotsche (Ground 5), and Douglas, Wager, and Klotsche (Ground 6) Render Obvious Claims 11, 16, and 19

1. *Klotsche Overview*

Klotsche teaches an “approach to measure adherence to drug and non-drug interventions in primary care.” Klotsche at Title; Bergeron at ¶ 147. As Klotsche explains, “patient compliance or rather adherence to medical measures and recommendations for lifestyle changes can pivotally influence the prognosis of the patients or disease progression.” Klotsche at Abstract; Bergeron at ¶ 147. Indeed, “on average 26% of all patients across various disease groups experience a good outcome by adhering than by not adhering to medical recommendations.” Klotsche at 83; Bergeron at ¶ 147. But measuring patient adherence to achieve these prognostic benefits was “extremely difficult to the fact that the construct of ‘adherence’ is complex and comprised of many layers, and varies greatly in different disease groups.” Klotsche at Abstract; Bergeron at ¶ 147.

To address these issues, Klotsche provides “a simple scoring scheme” that “cover[s] within one score both, pharmacologic and non-pharmacologic interventions in primary care,” namely, “drug adherence [and] behavioral adherence.” Klotsche at Abstract; Bergeron at ¶ 148. Specifically, Klotsche’s score is based on a patient’s achievement of goals in areas targeted by the patient’s

physician for improvement. Klotsche at 84-87; Bergeron at ¶ 148. These target areas are reproduced in TABLE 1, below (Klotsche at 85-87; Bergeron at ¶ 148).

TABLE 1: Klotsche's Target Areas and Goals

Target Area
Increase physical activity
Reduce weight
Quit or reduce smoking
Improve diabetes
Improve cholesterol levels
Improve blood pressure
Establish patient awareness
Increase patient motivation
Attend counselling/classes
Improve/ensure medication adherence
Ensure drug and behavioural adherence

2. *Modification of Douglas*

Douglas, like Klotsche, is concerned with a patient's adherence to a health program's goals. Bergeron at ¶ 149. Specifically, Douglas's system "generate[s] compliance data indicative of the individual's progress toward achievement of the program milestones" or goals (Douglas at Abstract; see also Douglas at claims 4, 8, 11, and 25), which include pharmacologic goals (Douglas at FIG. 6 ("Pharmaceuticals")) as well as non-pharmacologic goals (*id.* (remainder)). Bergeron at ¶ 149. Similarly, Klotsche proposes an "adherence score" to assess a patient's adherence to "both[] pharmacologic and non-pharmacologic interventions in primary care." Klotsche at 82, 88; Bergeron at ¶ 149. Indeed, both Douglas and Klotsche are concerned with a patient's meeting of goals related to, inter alia,

increased physical activity, reduced weight, reduced smoking, reduced cholesterol levels, improved blood pressure, compliance with prescribed medications, patient attendance at counselling/classes, and patient motivation. *Compare* Douglas at FIGs. 5, 6, 45 with Klotsche at 85-87; Bergeron at ¶ 149.

It would have been obvious to modify Douglas's system such that that system generated a compliance score like Klotsche's. Bergeron at 150. The resulting system is referred to as the Douglas-Klotsche System.

3. *Motivation to Combine*

First, Douglas's system generates "compliance data indicative of the individual's progress toward achievement of the program milestones." Douglas at Abstract; *see also* Douglas at 11:26-28, claims 4, 8, 11, 25; Bergeron at ¶ 151. That compliance data is not black-or-white, given that Douglas discloses that there are "levels of compliance." Douglas at 12:3-4; Bergeron at ¶ 151. Douglas's system provides this compliance data so that the patient's physician, as well as the patient, can monitor the patient's compliance with Douglas's program. Douglas at 11:26-12:7; Bergeron at ¶ 151. This compliance data is also used to make decisions with respect to the patient, such as modifying a non-compliant patient's program, placing that patient on probation, or terminating the patient from the system. Douglas at 11:35-12:2, 22:21-25, FIG. 50; Bergeron at ¶ 151.

Douglas does not, however, disclose how his compliance data is generated or what form it takes. *See* Douglas at 11:26-28; Bergeron at ¶ 152. Klotsche would have filled that gap by providing a compliance score based on the patient's meeting (or not) of a variety of goals like Douglas's (*see* Section VIII.A.2(d)) and would have advantageously enabled Douglas's system to carry out its compliance monitoring purpose as well as facilitated the compliance-based decisions with respect to the patient that Douglas contemplates (*see supra*). Bergeron at ¶ 152.

Second, as Klotsche shows, complete compliance is an unrealistic goal. Bergeron at ¶ 153. Indeed, Klotsche's risk-corrected mean adherence score was 73.2%, with the percentages of patients reaching targeted intervention goals ranging from 5.5% (smoking cessation) to 91% (medication adherence). Klotsche at 89-90; Bergeron at ¶ 153. Douglas, however, includes probation and termination (FIG. 50) as outcomes for a patient, with no explicitly disclosed way of deciding either. *See generally* Douglas; Bergeron at ¶ 153. Implementing a score like Klotsche's would have provided a refined measure of the patient's level of compliance that facilitated those determinations and avoided placing on probation or terminating patients, who, though not in complete compliance, were still benefitting from Douglas's system. Bergeron at ¶ 153.

Third, as a POSITA would have recognized, a compliance score like Klotsche's would have advantageously collapsed a patient's compliance with

Douglas’s multi-faceted goals (*see* Douglas at FIG. 6) into “one score” (Klotsche at Abstract), allowing the patient’s physician and the patient to readily ascertain (e.g., at a glance) the patient’s level of compliance with the program. *See* Douglas at 11:6-10, 12:3-7; Bergeron at ¶ 154. Indeed, Douglas itself recognizes the “clear benefits” of having “information readily available to the physician regarding the patient’s compliance with the program” (Douglas at 2:1-4), which would have been furthered using a score like Klotsche’s. Bergeron at ¶ 154.

4. ***Claim 11: The method according to claim 2, further comprising: generating a score based on the compiled data to determine if the compiled data varies from the thresholds to become significant for the client.***

Ground 5: *See* Section VIII.A.3 (Claim 2).

Ground 6: *See* Section VIII.B.4 (Claim 2).

Grounds 5 and 6: *See* Sections VIII.D.2-VIII.D.3. The Douglas-Klotsche system would have generated a compliance score like Klotsche’s to determine if the patient’s data falls short of the thresholds (*see* Section VIII.A.2(d) (Limitation 1[c])) such that they should be put on probation or if already so, terminated, which are significant outcomes. Bergeron at ¶ 157.

5. ***Claim 16: The system according to claim 13, wherein the client management program further generates a score based on the compiled data to determine if the compiled data varies from the thresholds to become significant for the client.***

Ground 5: *See* Section VIII.A.9 (Claim 13).

Ground 6: See Section VIII.B.4 (Claim 13).

Grounds 5 and 6: See Section VIII.D.4 (Claim 11).

6. ***Claim 19: The server according to claim 17, wherein the set of instructions are further executed to generate a score based on the compiled data to determine if the compiled data varies from the thresholds to become significant for the client.***

Ground 5: See Section VIII.A.11 (Claim 17).

Ground 6: See Section VIII.B.4 (Claim 17).

Grounds 5 and 6: See Section VIII.D.4 (Claim 11).

E. Grounds 7 and 8 – Douglas and Koh (Ground 7), and Douglas, Wager, and Koh (Ground 8) Render Obvious Claims 8, 14, and 20

1. Koh Overview

Koh “explores data mining applications in healthcare,” including “in major areas such as the evaluation of treatment effectiveness.” Koh at 64; *see also* Koh at 66; Bergeron at ¶ 164. Per Koh, data mining “aims to identify valid, novel, potentially useful, and understandable correlations and patterns in data by combing through copious data sets to sniff out patterns that are too subtle or complex.” Koh at 65; Bergeron at ¶ 164. Such copious data sets are “generated by healthcare transactions,” and they are “too complex and voluminous to be processed and analyzed by traditional methods.” Koh at 65; Bergeron at ¶ 164. For this reason, and because data mining can, *inter alia*, “identify[] effective treatments and best practices” from such a data set and thereby benefit “healthcare providers, such as hospitals, clinics and physicians, and patients,” data mining “is becoming

increasingly popular if not essential” in the healthcare field. Koh at 65; Bergeron at ¶ 164.

Data mining is performed on a data set through, e.g., “online analytical processing; traditional statistical methods, such as cluster analysis, discriminant analysis and regression analysis; and non-traditional statistical analysis, such as neural networks, decisions trees, link analysis and association analysis.” Koh at 65; Bergeron at ¶ 165.

2. *Modification of Douglas*

Douglas’s system “recommends a default set of goals based on the patient’s needs and existing medical protocols that may be modified by the physician.” Douglas at 7:17-20; Bergeron at ¶ 166. “This is done by correlating patient information such as age, sex, weight information relating to the health, life situation and diagnostic category of the patient,” and “the patient’s medication and other health conditions” to “established medical protocols for that type of patient.” Douglas at 8:1-13; Bergeron at ¶ 166. Such recommendations are made by Douglas’s system not just at the outset of the patient’s treatment, but throughout the patient’s treatment. Douglas at 21:9-12; Bergeron at ¶ 166.

Douglas does not explicitly disclose—apart from “established medial protocols”—how those initial or subsequent recommendations are made. Bergeron at ¶ 167. But Douglas’s system contains a copious amount of patient health data;

for instance, his FIG. 50 shows a total of 12,978 patients across numerous diagnostic categories on Douglas's system. Douglas at FIG. 50, 6:6-14; Bergeron at ¶ 167. And being on Douglas's system, each of these patients would have been associated with a therapeutic plan including goals (Douglas at 8:2-9) and compiled data (*see* Section VIII.A.2(f) (Limitation 1[e])). Douglas at FIG. 50; Bergeron at ¶ 167.

Douglas's system also tracks outcomes for these patients and their compliance with program. Douglas at 22:21-25, FIG. 50; Bergeron at ¶ 168. Douglas's system further includes a "review outcomes 354 option," which Douglas broadly explains includes "information as to the various patient outcomes, based on various pre-determined categories." Douglas at 23:16-22; Bergeron at ¶ 168. Specific examples are shown in Douglas's FIG. 55. Douglas at 23:16-22; Bergeron at ¶ 168.

It would have been obvious to modify Douglas with Koh (hereinafter the "Douglas-Koh System") such that Douglas's compiled data was data mined to identify best practices for patients; specifically, the "therapeutic program including goals" that Douglas's system recommends for those patients (Douglas at 8:1-9). Bergeron at ¶ 169. In the Douglas-Koh System, data mining would be used to identify:

- (1) a therapeutic plan for a patient based on therapeutic plans for similarly situated patients that were correlated with improvement in compiled

data or other positive outcomes, such as compliance with the program or a lack of re-hospitalization, heart attack, or surgery; and/or

- (2) a trend in the patient's compiled data that, for similarly situated patients, was correlated with deterioration in compiled data or other negative outcomes, such as non-compliance with the program or re-hospitalization, heart attack, or surgery, to recommend changes to that therapeutic plan to avoid such negative outcomes. Bergeron at ¶ 169.

3. *Motivation to Combine*

Modifying Douglas's system to data mine its compiled data, as taught by Koh, would have "benefitted [Douglas's] healthcare providers ... and patients, for example, by identifying effective treatments and best practices." Koh at 65; Bergeron at ¶ 170. As to example (1), "[b]y comparing and contrasting ... courses of treatments" and "outcomes," like Douglas's therapeutic plans and outcomes (*see* Section VIII.E.2), "which treatments work best and are most cost-effective" would have been identified. Koh at 66; Bergeron at ¶ 170. And as to example (2), "data mining applications can be developed to better identify ... high-risk patients," like those whose compiled data is trending toward a negative outcome (*see* Section VIII.E.2), and "design appropriate interventions" like modifications to Douglas's therapeutic plan to "reduce the number of hospital admissions and claims," which is

a negative outcome that Douglas specifically seeks to avoid (*see* Douglas at FIG. 55). Koh at 66; Bergeron at ¶ 170.

4. Claim 8

- (a) ***Limitation 8a: The method according to claim 1, further comprising: data mining the compiled data to determine best practices***

Ground 7: *See* Section VIII.A.2 (Claim 1).

Ground 8: *See* Section VIII.B.4 (Claim 1).

Grounds 7 and 8: The Douglas-Koh System (*see* Sections VIII.E.2-VIII.E.3) would have included data mining the compiled data to determine best practices, as, in the System, Douglas’s compiled data for his numerous patients would have been data mined to determine best practices for a specific patient, particularly, a therapeutic program or a modification to the therapeutic program for that specific patient. Bergeron at ¶ 171.

- (b) ***Limitation 8b: recommending the best practices to the one or more providers in response to the best practices being associated with a client assigned to the one or more providers.***

Grounds 7 and 8: Douglas’s system recommends the therapeutic program to the patient’s physician as well as modifications thereto. Douglas at 2:36-3-2 (“the system can recommend a plan (also referred to as a therapeutic program) and goals” that “[t]he physician can modify,” and “the system recommends modifications [of the program] ... to [the] physician”), 7:17-20, 21:7-13; Bergeron at ¶ 172.

In the Douglas-Koh System, that therapeutic program and modifications to the same reflected best practices as determined through data mining. *See* Section VIII.E.4(a) (Limitation 8[a]); Bergeron at ¶ 173.

5. ***Claim 14: The system according to claim 13, wherein the database is a relational database management system performing data mining to analyze the data from the providers to determine best practices, wherein the best practices are recommended for the client if relevant.***

Ground 7: *See* Section VIII.A.9 (Claim 13).

Ground 8: *See* Section VIII.B.4 (Claim 13).

Grounds 7 and 8: *See* Section VIII.E.4 (Claim 8). The Douglas-Koh System discloses that the database is a relational database management system, as Douglas’s databases are “relational databases 522,” (Douglas at 24:28-30 (“SQL” is a language used by a database management system), 22:6-7) that, in the Douglas-Koh System, are used to perform data mining to analyze the data to determine best practices, wherein the best practices are recommended for the client if relevant. *See* Section VIII.E.2; Bergeron at ¶ 176. In this regard, Douglas’s compiled data is from the providers. *See* Section VIII.A.2(f) (Limitation 1[e]).

6. ***Claim 20: The server according to claim 17, wherein the set of instructions are further executed to data mine the compiled data to determine best practices; and recommend the best practices to the providers in response to the best practices being associated with a client assigned to the providers.***

Ground 7: *See* Section VIII.A.11 (Claim 17).

Ground 8: *See* Section VIII.B.4 (Claim 17).

Grounds 7 and 8: *See* Section VIII.E.4 (Claim 8). In the Douglas-Koh System, it would have been obvious for the processor executing Douglas's compliance monitoring and feedback system, which is in network server 508 alongside Douglas's databases 522, to also execute data mining of that compiled data to protect the confidentiality of the compiled data as described in Section VIII.A.9(b) (Limitation 13[a]). Bergeron at ¶ 179.

IX. CONCLUSION

For the above reasons, the Challenged Claims are invalid, and institution is appropriate.

Dated: February 28, 2024

/Michael Solomita/
Michael Solomita (Reg. No. 53,940)

CERTIFICATE OF WORD COUNT

Pursuant to 37 C.F.R. § 42.24(a)(i), the undersigned certifies that this Paper—exclusive of the table of contents, mandatory notices under § 42.8, certificate of service, and this certificate of word count—includes 13,986 words.

/Michael Solomita/
Michael Solomita (Reg. No. 53,940)

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e) and 37 C.F.R. § 42.105(a), the undersigned certifies that on February 28, 2024, a complete copy of this Petition for *Inter Partes* Review, Petitioner's power of attorney, and all exhibits were served on Patent Owner at the correspondence addresses of record listed below by USPS Priority Mail Express:

Goodhue, Coleman & Owens, P.C.
7300 Westown Parkway, Box 13
West Des Moines, IA 50266

/Michael Solomita/
Michael Solomita (Reg. No. 53,940)