

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 IPR2024-00617
Patent 11,151,142 B2

DECLARATION OF DR. BRYAN BERGERON
IN SUPPORT OF PETITION FOR *INTER PARTES* REVIEW OF U.S.
PATENT NO. 11,151,142 B2

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LIST OF DOCUMENTS CONSIDERED

Exhibit	Shorthand	Description
1001	'142 Patent	U.S. Patent No. 11,151,142 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
1009	Koh	Hian Chye Koh & Gerald Tan, <u>Data Mining Applications in Healthcare</u> , 19 J. Healthcare Information Management 64 (2005)
1014	Microsoft	<u>Microsoft Computer Dictionary</u> (5th ed. 2002)
1015	ADAA	Printout of https://web.archive.org/web/20100116093130/https://adaa.org/supportgroups
1018	NetSuite	Printout of https://web.archive.org/web/20111102042326/https://www.netsuite.co.uk/portal/uk/resource/articles/cloud-computing.shtml
1019	Wright	U.S. Patent No. 10,471,588 B2
1020	Prgomet	Prgomet et al., <u>The Impact of Mobile Handheld Technology on Hospital Physicians' Work Practices and Patient Care: A Systematic Review</u> , 16 J. Am. Med. Inform. Assoc. 792 (2009)
1021	InfoGrasp	Printout of https://web.archive.org/web/20100812105813/https://infograsp.com/technology/benefits-of-web-applications/
1022	Virginia	<u>Autism Spectrum Disorders and the Transition to Adulthood</u> , VA Dep't of Educ. (2010)

I. INTRODUCTION AND SCOPE OF WORK

1. My name is Bryan Bergeron. I am over the age of twenty-one (21) years, of sound mind, and capable of making the statements set forth in this Declaration. I am competent to testify about the matters set forth herein. All the facts and statements contained herein are within my personal knowledge, and they are, in all things, true and correct.

2. I have been retained by Teladoc Health, Inc. (“Teladoc”) to provide my opinions and views on the materials I have reviewed related to U.S. Patent No. 11,151,142 B2 (the “’142 Patent”), and the scientific and technical knowledge regarding that subject matter. I have been asked to consider what a person of ordinary skill in the art (“POSITA”) at the time of the invention (“TOI”) of the ’142 Patent would have understood about the issues I address below. I have been asked to assume by counsel for Teladoc that the TOI was March 15, 2013.

3. My opinions, set forth below, are guided by my appreciation of how a POSITA would have understood the state of the relevant art, the teachings of the references I discuss below, and the claims of the ’142 Patent at the TOI.

II. EDUCATION AND EXPERIENCE

4. My curriculum vitae, attached as Exhibit 1013, includes my detailed employment background, professional experience, and list of technical publications and patents. A summary of relevant experience is provided below.

5. I taught in the Harvard-MIT Program in Health Sciences and Technology (HST) in Cambridge, Massachusetts for approximately 30 years. This program is a collaboration between the Massachusetts Institute of Technology (MIT), Harvard Medical School, Harvard University, and Boston area teaching hospitals that integrates science, medicine, and engineering to solve problems in human health. I taught clinical medicine, including cardiac pathophysiology and pulmonary pathophysiology, to medical students in the HST program, as well as medical informatics to these same students, faculty at MIT and Harvard Medical School, graduate students at the Harvard Law School, Harvard School of Public Health, and Harvard Business School.

6. Medical informatics is a discipline at the intersection of information science, computer science, and health care. It deals with the resources, devices, and methods for optimizing the acquisition, storage, retrieval, and use of information in various medical environments. In my course in medical informatics, I covered topics such as electronic medical record (EMR) systems, HIPAA privacy and security, large database design and implementation, physician performance, artificial intelligence, computer programming, microcontrollers and embedded systems, bedside monitoring and therapy systems, robotic surgery, mobile computing, modeling and simulation, graphical user interface design, and a variety of human

factors issues associated with clinician acceptance and use of information technology.

7. In 1980, I obtained my Bachelor of Science (B.S.) degree in Psychology, with honors, in the Tulane University Scholar's Program, with minors in physics and chemistry. Prior to receiving my B.S. degree, I studied electrical engineering at Louisiana State University in Baton Rouge, Louisiana, and performed research in neurological signal detection and analysis at the Marine Biology Laboratory in Woods Hole, Massachusetts. I obtained my Doctor of Medicine (M.D.) degree from Louisiana State University Medical Center in 1984, and was licensed to practice medicine and surgery in 1985. From 1985 through 1987, I was a post-doctoral research fellow in medical informatics at Brigham & Women's Hospital, a Harvard Medical School teaching hospital located in Boston, Massachusetts. As part of my post-doctoral fellowship, I studied computer science at Harvard University. In parallel with coursework, my postdoctoral research focused on the development of computer hardware and software programs that could be used to train medical students and other medical professionals by simulating various medical patients or medical problems. This involved first acquiring representative physiologic data from the patient's bedside and then comparing the simulated and real-life data from various physiologic systems. A major focus of my

research was the added value of a properly designed graphical user interface vs. the then-common textual user interface.

8. In 1984, when I was a fourth-year medical student, I founded my first company, Home Health Software, in New Orleans, Louisiana. I was the sole employee, and I worked as both the company president and programmer. Home Health Software focused on the development of software for various types of medical analyses and planning, including one of the first commercial nutritional analysis and planning applications that could be utilized by a lay-person on a home microcomputer. In each application, I developed novel graphical user interfaces using assembler code in the manner used to construct computer games.

9. Home Health Software produced several commercial patient simulation software titles, as detailed in my curriculum vitae, which were sold nation-wide. In late 1984, Apple Inc. made me one of a handful of Certified Developers for their new Macintosh Computer. I retired Home Health Software in 1985 when I moved to Boston to pursue my post-doctoral fellowship, but I continued and expanded my relationship with Apple. During my post-doctoral fellowship at Brigham & Women's Hospital and Harvard Medical School (from 1985-1987), I developed HeartLab, the first commercial multimedia patient simulator for a microcomputer. HeartLab was sold and marketed by Williams and Wilkins Publishers, Baltimore, MD, to virtually all medical schools in the United States, as well as major medical

schools in Canada and Europe. This was one of the first commercially successful medical applications developed specifically for the McIntosh.

10. As a result of the success of the HeartLab system, as well as other work that I performed as a post-doctoral fellow, Apple provided more support for courseware development. I also competed for and won a First Independent Research Support and Transition (“FIRST”) Award by the National Library of Medicine (“NLM”) in 1988. This award provided six years of support and funding for me to develop and evaluate new technologies.

11. In 1987, after my post-doctoral fellowship, I began work as an Application Specialist at Children’s Hospital, Boston. In this position, I managed the first HL7 installation on the East Coast, defined (with others) the hospital’s data dictionary, and designed the clinical workstation. The clinical workstation aggregated all clinical data on a particular patient or group of patients – including current labs, radiology, and physiological data (e.g., pulse, respiration, and EKG) from the bedside – under one intuitive interface. The workstation used an XWindows client-server model with an Oracle back-end.

12. In 1989, I began work as an Instructor at Harvard Medical School, as well as an Assistant Director of the post-doctoral fellowship program in Medical Informatics at Brigham & Women’s Hospital and Harvard University. One of my major responsibilities as Assistant Director of the post-doctoral fellowship program

was to facilitate the development of innovative, graphical, computer-based teaching programs—such as patient simulation software—that could be used to train students in the Harvard Medical School and Harvard-MIT HST programs. Accordingly, I continued my work on the software and research development funded by the FIRST Award during this time, utilizing the Harvard Medical School and HST programs as the testing and development environments.

13. As noted earlier, this work in modeling and simulation required me to obtain physiologic data from patients and then work to simulate these data. For example, in developing HeartLab, I first had to acquire the patient data that would later be simulated in software. As such, I developed a bedside heart monitoring system that acquired and digitized heart sounds in patients with various disease states, e.g., aortic stenosis. Similarly, with EKGLab, a program that I developed to simulate the range of EKG tracings possible with a variety of disease states, I had to first design and develop a bedside data acquisition system. I also developed a pulmonary monitoring system to acquire auscultatory data for LungLab, a program that I co-developed to teach pulmonary pathophysiology.

14. In each of the above programs, I defined the possible use cases and designed the appropriate user interfaces and defined the appropriate supporting infrastructure.

15. As detailed in my curriculum vitae, starting in 1989, I managed a team of post-doctoral fellows in medical informatics, medical students, and visiting fellows, students, and faculty in developing over a dozen commercial-grade patient simulators as well as back-end infrastructures and databases for tracking and documenting learner progress in the various medical educational systems. In 1990, I was elected Fellow of the American College of Medical Informatics (FACMI).

16. In 1996, I founded Archetype Technologies, Inc. in order to offer consulting services to industry and compete for government funding. As the head of Archetype, I also served as Chief Scientist for various clients—generally startup companies or other small companies.

17. In my work with Kurzweil Applied Intelligence (from 1988-2000), which developed the first large-vocabulary medical dictation system, I helped define the medical vocabularies and edited the overall hierarchy of medical terms used in the speech recognition engine in Pathology, Radiology, and Emergency Medicine.

18. In 1999, I served as Principal Investigator on a Small Business Innovation Research (SBIR) grant I won on behalf of Kurzweil Applied Intelligence, for which I co-developed a rule-based medical record quality assurance system for automatically reviewing (e.g., parsing and evaluating) reports in EMR systems. This application of natural language understanding technology to EMR systems was immediately commercialized and sold by Lernout & Hauspie Speech Products.

19. My EMR and EHR experience also includes work with KFSH&RC, Riyadh to develop and extend a large data warehouse. As documented in four books, this data warehouse provides a central repository of EMR data from a variety of clinical and administrative systems, including an EMR system. My EMR experience further includes reviewing systems and associated applications for publication in various journals.

20. I also have extensive experience with computer hardware and software programming, especially as used and implemented in the medical industry. I have experience in 6502 and 68000 Assembler, FORTH, LISP, PROLOG, PASCAL, NEON, SMALLTALK, C/C++, JAVA, PERL, SQL, and numerous embedded processor, desktop and server-based scripting languages, including DBMS languages.

21. As noted in my curriculum vitae, I obtained several endorsements from the Federal Communications Commission (FCC) starting in 1971, over a decade prior to obtaining my license to practice medicine and surgery.

22. At 16, as a freshman at LSU, I was a judge for physics and electronics at the state science fair and, at the request of the Dean, developed the curriculum for the Solid-State Laboratory course in electrical engineering at LSU. The course included analog, digital, and hybrid circuits. I have continued my involvement in science fairs as a judge in physics and electronics at the annual state fair at MIT, and

my involvement in electronics and robotics as editor in chief of both Nuts & Volts (for experimentalists in general electronics) and SERVO (for experimentalists in robotics) magazines, two major resources for STEM educators.

23. I have held a variety of posts in organizations that focus on the application of computing to the practice and teaching of medicine. For example, I have served as Chairman of the Mathematical Modeling & Simulation Committee for the Symposium on Computer Applications in Medical Care (SCAMC), Chairman of the SCAMC Human-Computer Interfacing Committee, and Chairman of the Healthcare Information and Management Systems Society (HIMSS) Conference on Innovative Informatics for Reducing Medical Errors.

24. I have also served on fourteen editorial boards for various publications related to medical informatics, including e.MD (Founding Editor-in-Chief), Physicians Home Page, HealthStream, Medical Software Reviews, WebMD/Medscape Tech Med, Healthcare Informatics, Robotics Business Review, and Servo Magazine.

25. I am a frequent contributor to the field of medical informatics. I have written over 1,400 articles for various journals and publications, including Computer Methods and Programs in Biomedicine, the Journal of Medical Education Technology, the Journal of Educational Multimedia and Hypermedia, the Journal of Instructional Delivery Systems, Perspectives in Biology and Medicine, the British

Journal of Knowledge Management, and the International Journal of Mechanical Engineering and Robotics Research. Many of those articles are in the field of robotics (including telerobotics) and telemedicine. I am the author of over two dozen books, several chapters, and have given hundreds of lectures and courses on topics regarding computer technology, computer-assisted training, medical informatics, data dictionary design issues, emerging technologies in healthcare, and robotics.

26. I am a named inventor on 11 U.S. patents. Four of the patents on which I am a co-inventor are related to virtual, web-based, and processor-enabled training for medical personnel. Another patent deals with intelligent tutoring systems, and two other patents deal with translational reality interfaces using embedded processors.

27. I presently serve as President of Archetype Technologies, Inc. in Brookline, Massachusetts, which designs and develops custom hardware and software solutions for medical device and medical information system companies, and is developing software and hardware systems for commercialization in the field of translational reality.

28. For the past decade, I have served as the Principal Investigator on a series of research grants sought by Accella Learning Company related to the development of electronic simulator hardware and software for intelligent tutoring systems that train medical first responders for nuclear, chemical, and biological

warfare events. These grants were funded through the United States Department of Defense (DoD). Most recently, I served as the chief medical consultant on DoD-funded grants to design and develop the software infrastructure for a national physiology research platform, BioGears. This platform is designed to build lifelike mannequins, realistic online military games, and a variety of medically-accurate scenarios for training and testing.

29. Having the above knowledge and experience, I am well qualified to offer the opinions I express in this Declaration.

III. COMPENSATION

30. My work on this matter is being billed to Teladoc at \$425 per hour, and I am also being reimbursed for reasonable expenses I incur in relation to my services. My compensation is not dependent on my testimony or the outcome of this or any other proceeding.

IV. LEGAL CONSIDERATIONS

31. I am not a lawyer and I offer no legal opinions. For the purposes of this Declaration, I have been informed by counsel for Teladoc about certain aspects of the law that are relevant to my analysis, as summarized below.

32. My opinions address what would have been logical to a POSITA at the TOI, given the state of the relevant art, the knowledge and skill that a POSITA would have had, the teachings of the references discussed below, how a POSITA would

have understood those teachings, and the predictability of the systems discussed below, including in the modified forms I discuss below. My opinions also address whether a POSITA would have had a reasonable expectation of the modified systems below successfully yielding the results discussed below.

33. I understand that a POSITA is a hypothetical person. He is not a genius. He thinks along the lines of conventional wisdom. I understand that a POSITA is also a person of ordinary creativity, not an automaton. Section VI, below, includes qualifications of a POSITA. I also understand that, in determining who would qualify as a POSITA, it is appropriate to consider criteria such as: (a) the type of problems encountered in the art; (b) prior art solutions to those problems; (c) the rapidity with which innovations are made; (d) the sophistication of the technology; and (e) the education level of active workers in the field.

34. I understand that a claim term is given the meaning that the term would have to a POSITA at the TOI, which generally is the ordinary and customary meaning of the term. I further understand that the ordinary and customary meaning of a term may be evidenced by a variety of sources, including the words of the claims themselves, the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art.

V. BASIS FOR OPINIONS

35. My opinions are based on my education, training, and experience, as well as items that I reviewed to prepare my opinions, including the '142 Patent and at least the documents listed in the table at the beginning of this Declaration.

VI. LEVEL OF ORDINARY SKILL IN THE ART

36. Taking into consideration the factors discussed in my paragraph 33, it is my opinion that a POSITA as of the TOI 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.

37. At the TOI, my level of skill in the art was beyond that of a POSITA. Furthermore, based on my education, research, and teaching experience in the healthcare field and with computer-based systems for recording, tracking, and analyzing patient health information, I worked with individuals who qualified as POSITAs. I am therefore well acquainted with the level of ordinary skill described above. Thus, I am capable of rendering an informed opinion on the level of ordinary skill in the art at the TOI. My opinions are provided from this perspective of a POSITA at the TOI, whether or not those opinions are explicitly identified as such.

VII. ISSUES CONSIDERED

38. I was asked to consider several issues raised in Petitioner’s Grounds, which I address below, grouped by the Grounds to which they pertain.

A. **Ground 1 – Claims 1, 3, 4, 6, 7, 10, 11, 14, 16, and 17 in View of Douglas**

1. *Douglas Overview*

39. Douglas discloses “[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.

40. In Douglas, a network administrator provides input into Douglas’s system to “subscribe” a physician to the system, thereby creating a physician account. Douglas at 25:17-19 (the network administrator “subscribes all users to the system except clinical or wellness group participants,” which are patients (*id.* at 6:6-14)), 19:27-30 and 25:5-9 (physicians are account-holding, non-patient users of Douglas’s system).

41. And a case administrator—who may serve as the network administrator (Douglas at 25:17-18)—creates a patient account “based on information contained in the patient prescription form” (*id.* at 6:33-7:20, FIG. 60), which is filled out and signed by the physician (*id.* at FIG. 2). The patient can range from one having

“coronary artery disease” to one “who simply want[s] to maintain their health.” *Id.* at 6:6-14.

42. “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.” Douglas at 7:17-8:13. Exemplary goals set by Douglas’s system include everything from “intake of calories from fat” to “Seatbelt Use.” *Id.* at 8:1-13, FIG. 6. Those goals also include interim goals—“one month goals 61”—toward the “final goals 62.” *Id.* at 8:10-13, FIG. 6.

43. 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). 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.” *Id.* at 11:18-25.

44. 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. Being so-implemented, the system is accessible by “patients,

physicians,” and other users, for example, “via the Internet 518” and using “a PC 500.” *Id.* at 24:3-26, FIG. 59.

2. Claim 1

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

45. Douglas discloses a method for tracking goal progression, as Douglas’s 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; *see also id.* 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 establishing accounts for providers serving clients, wherein the clients are individuals receiving treatment or assistance, and wherein the accounts are stored in a server available through one or more networks;*

46. Douglas discloses receiving input establishing accounts for providers serving clients. As Douglas explains, “[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. Given that physicians are users of Douglas’s system (*id.* at 19:27-30, 25:5-9) and not clinical or wellness group participants, which are instead patients (*id.* at 6:6-14), the network administrator, per Douglas, subscribes physicians to the system. This act of subscription is input. And that input establishes accounts for providers, as once so-subscribed, a physician

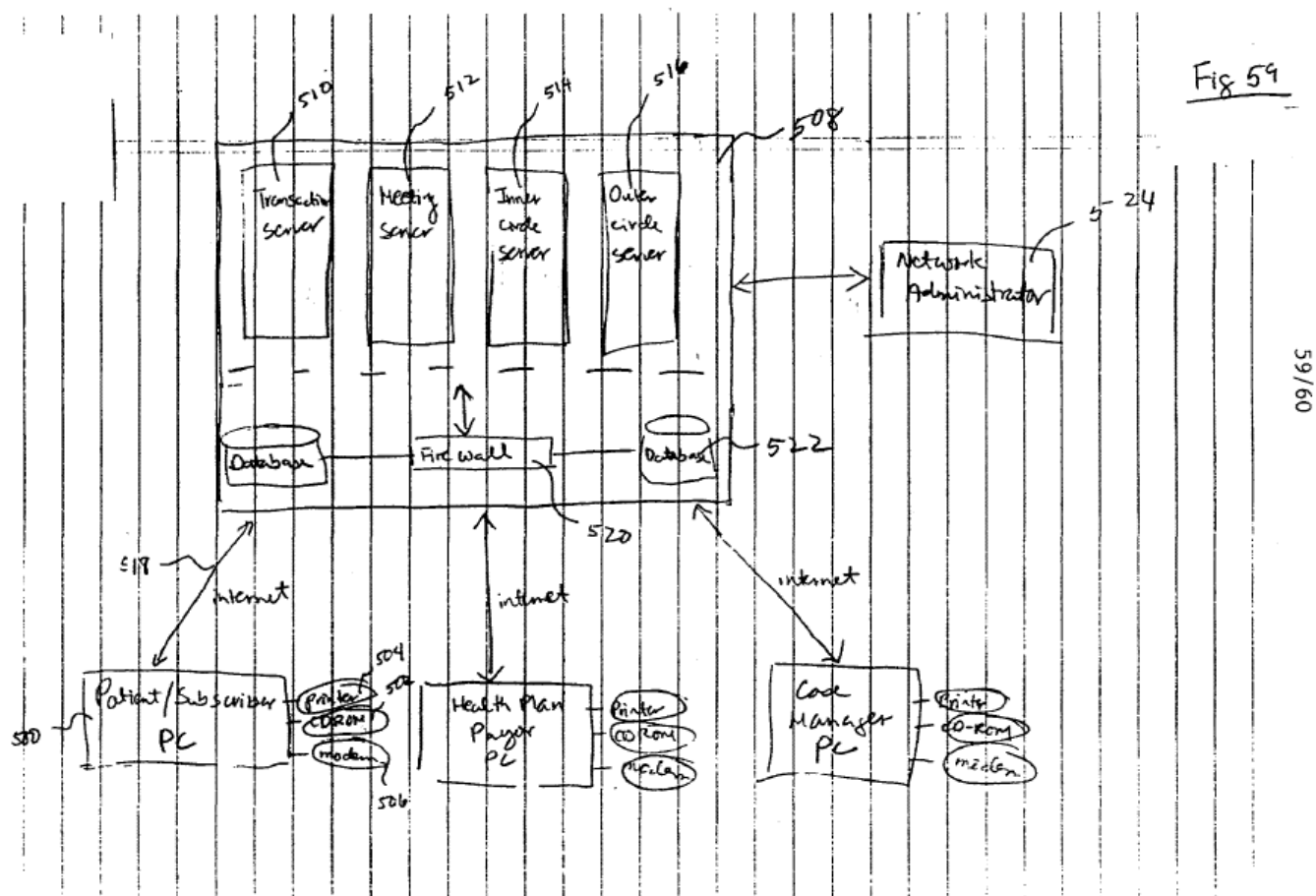
“log[s]-on” using “their name 222 and corresponding password 224 ... to gain access to the system” (*Id.* at 19:27-30, FIG. 38, 25:5-11, FIG. 36); in other words, using a created account.

47. Should it be found that the network administrator’s input does not establish physician accounts, Douglas discloses physician accounts (*id.*) on his system, which a POSITA would have understood were set up through input to that system, and the claims are agnostic as to who provided that input.

48. Douglas’s system includes multiple subscribed physicians (*id.* at FIG. 57), each serving multiple patients (Douglas at FIG. 57, 21:14-15), meaning the received input is for establishing accounts for multiple providers serving multiple clients. Douglas’s physicians are the claimed providers (*see* ’142 Patent at 4:37- 40 (“a provider is ... [a] caregiver”)), and Douglas’s patients are the claimed clients (*see id.* at 4:17-25 (“the subject may be a ... patient” and “may also be referred to herein as a client”)).

49. Douglas’s patients are each an individual receiving treatment or assistance, as, prior to being set up on the system, the patient’s physician “diagnoses [the patient] with an ailment ... [and] recommend[s] a health care maintenance or recovery program which requires the patient” to take various actions, meaning the patients are receiving treatment or assistance from their physicians. Douglas at 6:24-35.

50. Douglas further discloses that the provider accounts are stored in a server—Douglas’s network server 508, shown in Douglas’s FIG. 59 (reproduced below):



Douglas’s FIG. 59

51. 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. “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” (*id.* at 24:28-37), and those databases are also part of server

508 (*id.* at FIG. 59). Server 508 thus stores the accounts, as it contains “[a]ll the information needed by a user of the system,” including those for the physicians. *Id.* at 24:28-37.

52. Douglas discloses that server 508 is available through one or more networks, as “each PC 500 is electronically linked to network server 508 via the Internet 518,” which is a network. Douglas at 24:12-13, FIG. 59, 8:28-31.

(c) *Limitation 1[b]: creating fields required for compiling data associated with the treatment or assistance of each of the clients from the providers*

53. Mapping 1: Shown in the patient record of Douglas’s FIG. 4, reproduced below, “[t]he first column 44 of the [patient’s] record sets forth fields for pertinent patient information, including the patient’s vital signs ..., other baseline characteristics ..., and information relating to any medications used by the patient.” Douglas at 7:22-26.

HeartLand 68 Fig 4

Administration — HeartLand

VC | PP | Payor/Employer | Provider/Case

Provider/Case Advisor

HeartLand Health Assessment Review

SCREEN 1 OF 3

PATIENT STATUS & GOALS: DETAILS		Now 2/10/98	1 month Goal	GOALS
Name / D.O.B.	Fred Smith 2-3-49			
Starting Date	2/1/98			
Heartland I.D.	23-642			
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/Complex Carb Intake	60		
	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 ml/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	60		
Back Pain	Incidents per month	3		
Pharmaceuticals				
- aspirin	325 mg	325 mg/da		
- hydrochlorothz.d.	12.5 mg	12.6 mg/da		
- Lovastatin	20 mg	20 mg/da		

EDIT DESIGN

Douglas's FIG. 4

First column 44 sets forth fields: the patient's baseline data in the fields of the second column 46, and, in the fields of "the third column 48, the record may be updated on an ongoing basis by taking data ... from subsequent office visits." *Id.* at 7:26-29, FIG. 4.

54. Douglas's fields are required for compiling data associated with the treatment or assistance of the patient from the physician. This is because those fields indicate the vital signs and characteristics of the patient that must be entered by the

physician and compiled over time (Limitation 1[e]) so that Douglas’s “system [can] periodically correlate[] the updated patient health information with the program goals to determine the patient’s progress and compliance with the program” (Douglas at 11:26-28). To the extent it be contended that the claimed fields must allow for the data to be entered, these fields do—they “tak[e] data ... from subsequent office visits” in column 48. *Id.* at 7:26-29.

55. Douglas’s fields were necessarily created in order to exist. Douglas at FIG. 4. Indeed, these fields vary for individual patients based on their diagnostic categories, indicating their individualized creation for patients. Douglas at 8:14-19 (“[t]he content of the patient records and the generated goals vary depending on the patient’s diagnostic category”).

56. Mapping 2: To the extent it to be argued that the claimed fields themselves must allow for data entry and Douglas’s fields do not, Douglas discloses “accept[ing] updated patient data ... through data entered by the physician during office visits,” and using fields to allow the physician to enter the data would have been beneficial. Douglas at 11:1-5, FIG. 60; see my Section VII.A.2(f) (Limitation 1[e]).

57. To begin, Douglas makes frequent use of fields for data entry. *Id.* For instance, Douglas’s FIG. 46 (reproduced below) includes fields for recommending

an exercise regimen, a blood pressure warning threshold, daily calorie intake, as well as attendance at group support sessions. Douglas at FIG. 46.

HeartLand 74 *fig 46*

HeartLand Recommendations

HEARTLAND PATIENT: Fred Smith PATIENT NUMBER: 23-642

DATE: 3/10/98 TOTAL AVERAGE DAILY CALORIES: 3,100

INCREASE EXERCISE TO: 45 minutes TOTAL DAILY CALORIES FROM FAT: 465 (15%)

INCREASE RPE TO: Level 5
see the Village Gym for suggestions and preferences

INDICATE TO PHYSICIAN BLOOD PRESSURE IN YELLOW ZONE AT: 146/92

CHOOSE REWARD FROM: Village Mall
For 60 Smoke Free Days

Good support group attendance

OTHER: Diet

Frequency and Duration of Stress Reduction Exercises: 45 minutes per sessions at least 5x/week

Attend Group Support Sessions: 4 times/week

Case Advisory Review: ☒ 4x/mo. ☐ 2x/mo. ☐ 1x/mo.

Next Physician Visit Due: 5/25/97

Accepting Editing Communications

- Remain cigarette free!
- Remember to use your seatbelt!
- Remember back and flexibility exercises!

Douglas's FIG. 46

Each of these fields allows the entry of data, as Douglas explicitly discloses that “[t]he physician reading the report can ... modify 332 the recommendations.” *Id.* at 21:4-13, FIG. 46.

58. Further, the use of fields for entering data—specifically, patient data—was within a POSITA’s general knowledge, as reflected by Wright. Wright, for

example, discloses a “graphical user interface 150 [that] includes a plurality of data fields 152 that can be filled by the user” to enter “medical data such as heart rate, glucose level and blood pressure.” Wright at 4:53-59, FIG. 4 (reproduced below).

The image shows a screenshot of a web browser window displaying the "Stroke Net Patient Information Form". The browser's address bar shows the URL "https://www.intouchreports.com/strokeNet.asp". The form itself has a title "Stroke Net Patient Information Form" and an illustration of two people at computers. Below the illustration, the form lists 11 numbered fields for data entry:

- 1. Patient's Last Name: [text input]
- 2. Patient's First name: [text input]
- 3. MRN: [text input]
- 4. Age: [text input]
- 5. Gender: [dropdown menu with "Select Male or Female" selected]
- 6. Weight in Kgs: [text input]
- 7. Heart Rate: [text input]
- 8. Glucose level: [text input]
- 9. SBP: [text input]
- 10. DBP: [text input]
- 11. Patient History: [text input]

A bracket labeled "152" groups the input fields from 1 to 11. A bracket labeled "150" points to the entire form area. The label "FIG. 4" is positioned to the right of the form.

Wright's FIG. 4

59. Using these fields, whether Douglas's or those from a POSITA's general knowledge, to allow the physician to enter patient data during office visits (Douglas at 11:1-5, FIG. 60) represents a combination of familiar elements according to known methods that does no more than yield predictable results. Indeed, these fields would perform the same data-entry function that they were

known to perform and would lead to the predictable result of the physician entering patient data into Douglas's system.

60. Additionally, Douglas's system must somehow "accept[] updated patient data ... through data entered by the physician during office visits." Douglas at 11:1-5, FIG. 60, 6:32-33 (patient data is entered via the physician's personal computer). Using fields as described above would have enabled the entry of the updated patient health data and advantageously allowed Douglas's system to perform its goal-tracking purpose: "periodically correlat[ing] the updated patient health information with the program goals to determine the patient's progress and compliance with the program." *Id.* at 11:26-28.

61. These fields would have been the vehicle for Douglas's system to accept the physician-entered patient data that Douglas compiles over time (Limitation 1[e]), meaning they would be required for compiling data. Finally, these fields would have existed and therefore have been created.

62. Mappings 1 and 2: The data recorded in Douglas's disclosed or obvious fields is associated with the treatment or assistance 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 treatment or assistance of the patient. Douglas at 11:6-12:2, FIGs. 60, 5, 6. As specific examples

of updated patient data, Douglas provides the patient's blood pressure and weight. *Id.* at 11:11-22.

63. These fields were (Mapping 1) or would have been (Mapping 2) created for each of Douglas's multiple patients (Limitation 1[a]) so that each patient's physician was able to enter the patient's health data for compilation.

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

64. Douglas also discloses that each of the clients (i.e., patients) are assigned to one or more of the providers (i.e., physicians), who are individuals available to treat or assist their respective patients (Limitation 1[a]). Indeed, Douglas teaches a "Responsible Physician" for a patient (Douglas at FIG. 47), Douglas explains that patients "keep in constant contact with their physician" (*id.* at 15:8-9), Douglas's system sends alerts to a patient's physician (*id.* at claims 11, 25), Douglas's prescription form associates the patient, "Patient Name[/]ID," with a physician, "Physician Name[/]ID")" (*id.* at FIG. 2), and Douglas's system sends status reports to a patient's physician (*id.* at FIG. 7 ("Dear Doctor **Cavello**: This is a status report on your patient, **Fred Smith**"))).

65. This patient-to-physician assignment is required for Douglas's system to "provide[] the physician with reports of patient progress," "send an alarm to the

physician,” or otherwise “notify the physician” regarding the patient’s progress. Douglas at 11:6-12:2.

66. Douglas further discloses that the assignment of clients to providers is in response to selections from an administrator, as the case administrator sets up each of the patients on Douglas’s system by entering the information contained in the patient prescription form (Douglas at 6:33-7:13, FIG. 2), where the information includes information associating the patient with a physician (*id.* at FIG. 2 (“Physician” name, ID, and signature)). Douglas’s FIG. 2 is 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

2. Circle a diagnostic category:

24

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

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:

	1200	1500	2000	2500	3000
Daily calories	1200	1500	2000	2500	3000
Sat Fat Grams	<15	15	18	20	25
Pet Fat Cal	10%	15%	20%	25%	30%
Exercise (Frog/wh/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's FIG. 2

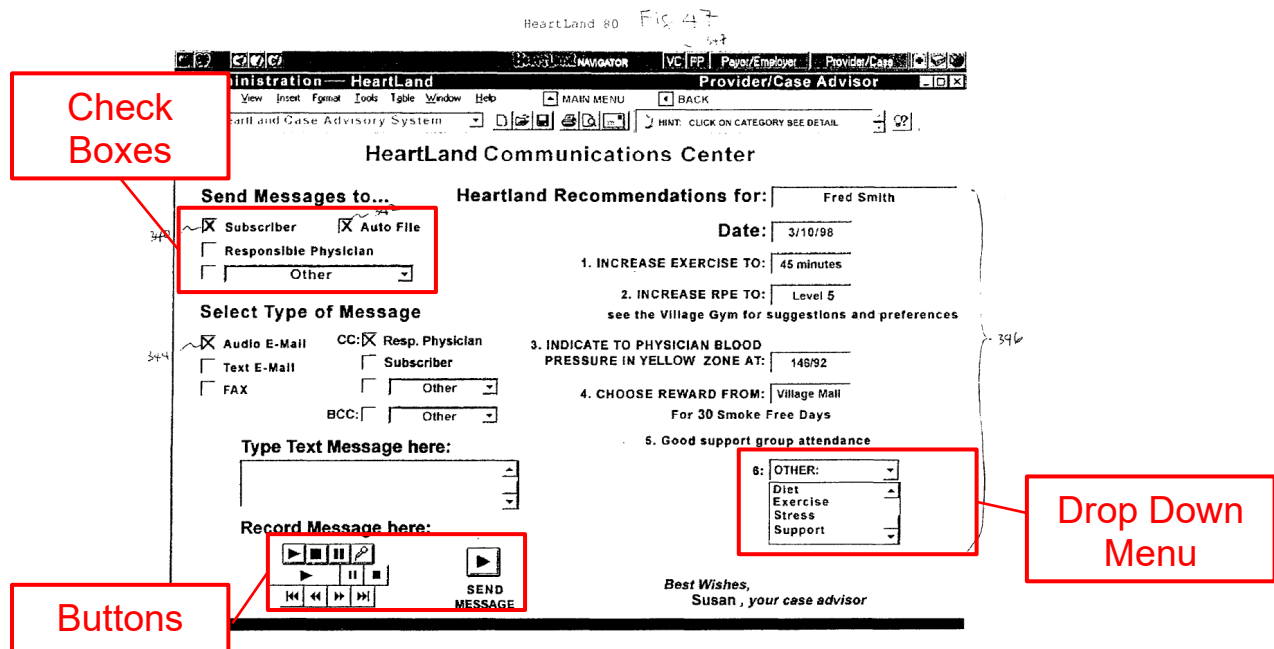
In view of the required nature of a patient-to-physician assignment, a POSITA would have understood Douglas's disclosure of the administrator entering this patient-physician information from the patient prescription form to be disclosure of the administrator's assignment of the patient to the physician within Douglas's system.

67. In my opinion, it also would have been logical and efficient for the case administrator to assign the patients to their physicians. As explained above, such assignments had to be created to achieve the functionality of Douglas’s system, and the administrator was a logical and efficient option for creating it because 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. In other words, it makes sense and is efficient for the one who sets up a patient on Douglas’s system—the case administrator—to establish the required patient-physician link, particularly when that person has the information necessary to establish it.

68. Additionally, by entering the patient prescription form, the case administrator’s assignments of the patients to the physicians includes the administrator’s selections of each of the patients and of the physician to be assigned to that patient. To be clear, to assign the patient to their physician requires the selection of that patient and the selection of that physician.

69. If it is found that something more is required to meet the claimed selections, it would have been logical and consistent with Douglas for the administrator to use graphical user interface (“GUI”) components to assign the patient to the physician, which would have also been selections.

70. Douglas discloses several GUI components, including check boxes, drop-down menus, and buttons, which are shown in, for example, Douglas's FIG. 47 (reproduced and annotated below):



Annotated Version of Douglas's FIG. 47

More GUI components are shown in Douglas's FIGs. 5, 6, 38, 39, 46, 49-52, and 58.

71. It would have been logical to use Douglas's GUI components to assign each of the patients to their 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.

72. First, each of these options represents a combination of familiar elements according to known methods that does no more than yield predictable results. As shown in Douglas's FIG. 47, Douglas discloses the use of selectable check boxes and drop-down menus to choose items from lists. Douglas at FIG. 47 (check boxes for who to "Send Messages to..." and "Type of message" and drop-down menus for the same in addition to "Recommendations" for the patient). FIG. 47 also shows Douglas's use of a selectable button to act upon those choices. *Id.* at FIG. 47 ("SEND" the chosen message type to the chosen recipients and including the chosen recommendations).

73. In both options (1) and (2), the check boxes and drop-down menu would perform the same choosing-from-a-list function they do in Douglas's FIG. 47, but for a list of physicians. And the button would, like in FIG. 47, act upon the choices to create the patient-to-physician assignment. Thus, in options (1) and (2), the functions of the GUI components remain unchanged.

74. Each of the options would also lead to the predictable result of the patient being assigned to the chosen physician by the administrator.

75. Second, any of these options would have accomplished the necessary patient-to-physician assignments in Douglas's system (as explained above), and in

a way that furthered Douglas's desire for that system to be GUI-based and using the GUI components it already uses. Douglas at 2:16-24 ("The present invention ... provides for [a] ... system ... through an integrated system of interactive graphical interfaces."); 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 a GUI. Microsoft at 97 (a check box is "a[n] interactive control often found in graphical user interfaces"), 178, 239 (a graphical user interface is "[a] visual computer environment that represents programs, files, and options with graphical images, such as icons, menus"—such as drop-down menus—and dialog boxes on the screen"), and 79 (a button is "a graphic element in a dialog box that, when activated, performs a specified function").

76. Although the claim states "assigning each of the clients to one or more of the providers," should the claim be found to require multiple providers to be assigned to a patient, such would have been advantageous in Douglas's system. Douglas's system is used to treat patients with a variety of diagnoses, including those with multiple, or co-morbid, diagnoses. Douglas at FIGs. 2, 7. These patients would have benefited from having assigned physicians specialized in addressing those conditions, such as a cardiologist for a patient's heart conditions (*id.* at FIG. 2 (Diagnostic Categories I-VII)), a psychiatrist for the patient's mental conditions (*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 example, a patient's "Physical Activity" and "Eating Habits").

- (e) ***Limitation 1[d]: establishing desired outcomes for each of the clients based on treatment and assistance required to meet the desired outcomes, wherein one or more thresholds indicates whether the desired outcomes are met;***

77. Douglas discloses establishing desired outcomes for each of the clients. "[T]he physician or case advisor 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 or case advisor to assign intensity levels 51 corresponding to the patient's diet, exercise, stress management, need for group support, anticipated compliance, and pharmaceutical requirements" (*id.* at 7:33-37), as shown in FIG. 5 (reproduced below):

HeartLand 69 Fig 5

Administration — HeartLand Provider/Case Advisor

File Edit View Insert Format Tools Table Window Help

HeartLand Health Assessment Review

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

51

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

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

52

Diet	15%	Calories From Fat
Exercise	3/4 4	hr days per week
Stress Management	1/2 7	hr days per week
Group Support	1/2 5	hr days per week
Compliance Mgt. Freq.	4	times per Month
Smoking		Cessation
Drug	aspirin 325 hydrochlorothz. 12.5 Lovastatin 20	mg/da

Program Detail 54

Douglas's FIG. 5

“Based on the input information,” which includes the intensity levels as well as patient characteristics “such as age, sex, weight and [other] information,” “the system, case advisor, or physician generates a set of goals 52” as part of “a therapeutic program” for the patient. *Id.* at 8:1-9, FIG. 5. “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” (*id.* at 8:8-11), as shown in FIG. 6 (reproduced below):

Administration — HeartLand

File Edit View Insert Format Tools Table Window Help

MAIN MENU

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/Cmplx 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.d.	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 63

EDIT 64

OPTIONS...

62

60

Douglas's FIG. 6

"The physician or case advisor may confirm 63 or edit 64 the suggested program to modify the goals by making appropriate selections." *Id.* at 8:11-13.

78. Douglas's goals 51, 61, 62 are each a desired outcome. And Douglas's system assesses whether those desired outcomes are met by comparing the data relating to the patient to respective thresholds of the desired outcomes, also shown in Douglas's FIG. 6, such as the patient's blood pressure being below 130/90 and the patient's weight being below 175. Douglas at FIG. 6, 11:18-28.

79. Douglas’s disclosure of “[t]he physician or case advisor confirm[ing] 63 or edit[ing] 64 the suggested program to modify the goals” is disclosure of establishing these desired outcomes based on treatment and assistance required to meet them, whether the physician or case advisor confirms the goals as consistent with such treatment and assistance or edits them to be so. Douglas at 8:12-13. Indeed, Douglas’s program provides “goals 52,” “one month goals 61,” and “final goals 62” for weight loss, smoking cessation, reduction of alcohol consumption, and dietary improvements. *Id.* at 8:1-13, FIGs. 5, 6. The presence of these goals in the program shows that they are aspects for which the patient needs treatment and assistance to meet.

80. Douglas’s disclosure of the physician or case advisor “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 also disclosure of determining treatment and assistance for the client to meet the desired outcomes. These intensity levels form the basis for Douglas’s goals as, “[b]ased on the input information,” including the intensity levels, “the system ... generates a set of goals 52 ... for the patient,” along with more-detailed “one month goals and final goals 62.” *Id.* at 8:1-13, FIGs. 5 and 6.

81. To the extent required, treatments needed are further indicated by the intensity levels and confirmed or edited goals relating to the patient's use of pharmaceuticals (Douglas at FIG. 5 and 6), and assistance needed is further indicated by the provider-received intensity levels and confirmed or edited goals relating to the patient's participation in group support (*id.* at FIGs. 5 and 6 (support groups were and are not considered treatment)).

82. Beyond that, the therapeutic program's pharmaceutical treatments, taking "aspirin," "hydrochlorathzd.," and "Lovastatin" (Douglas at FIG. 6), are also, as a POSITA would have recognized, linked to other desired outcomes, reflecting a determination that these treatments are needed to meet those outcomes. Indeed, aspirin reduces "Back Pain," hydrochlorothiazide reduces "Blood Pressure," and Lovastatin reduces "Cholesterol," each of which is a desired outcome. Douglas at FIG. 6. Similarly, a POSITA would have recognized that the therapeutic program's recommended assistance—attending "Group Support"—is linked to, e.g., desired outcomes of reducing "Alcohol" consumption, "Stress," and "Depression," reflecting a determination that the assistance is needed to meet those outcomes. *Id.* at FIG. 6.

- (f) *Limitation 1[e]: compiling data associated with at least performance of the desired outcomes by each of the clients received from the providers utilizing computing or communications devices in communication with the server;*

83. Douglas discloses receiving data associated with each patient from the providers, as “the system accepts updated patient data ... through data entered by the physician during office visits.” Douglas at 11:1-5, FIG. 60, claim 14, FIG. 41 (“Physician reported” blood pressure). This provider-entered, updated patient data is periodically received. *Id.* at FIG. 60 (blocks 1030 and 1034), claims 11 and 14.

84. Douglas discloses that this data received from providers is associated with at least performance of the desired outcomes, as Douglas explains that the system leverages that data to determine whether a patient is meeting their goals. Douglas at 11:1-12:2 (“the system periodically correlates the updated patient health information with the program goals to determine the patient’s progress and compliance with the program”).

85. Being collected over time, the received data is compiled. This 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,

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 help him or her determine how the patient is doing in relation to the ultimate goals.”).

86. Douglas discloses that the data is received from a provider utilizing computing or communications devices in communication with the server, as the patient data is entered by the provider using a “PC 500 with a Pentium microprocessor” that “is electronically linked to network server 508 via the Internet 518” using “a high-speed modem 506 connected to the PC 500.” Douglas at 24:3-26, FIG. 59. Indeed, the physician “ENTER[S] UPDATED PAT. HEALTH INFO ONLINE” (*id.* at FIG. 60), and Douglas explains that the entry of the patient health info is achieved “via [the physician’s] personal computer.” *Id.* at 6:31-33 (“The doctor may input these vital factors into the system directly via his or her personal computer.”), 24:28-36, 11:3-5.

87. As explained in Limitation 1[a] (above), Douglas’s system treats multiple patients, each having one or more physicians, meaning provider-received data is compiled for each of those patients, and whether for a patient having multiple physicians or across multiple patients, that data is received from multiple physicians.

- (g) *Limitation 1[f]: automatically determining whether 1) the desired outcomes are being met in response to rules governing data analysis that are utilized based on the compiled data, and 2) the compiled data varies from one or more thresholds to become significant for one or more of the clients; and*

88. Douglas discloses automatically determining whether the desired outcomes 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. These goals—i.e., desired outcomes—include Douglas’s goals 52, one-month goals 61, and final goals 62. VII.A.2(e)(discussed above).

89. Douglas further discloses that this determination is in response to rules governing data analysis that are utilized 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. As a specific examples of the rules, Douglas discloses comparing thresholds of the goals (VII.A.2(e)) to updated patient data to determine whether the patient has met the goals; “[f]or example, if the current data states that the patient has lost 5 pounds instead of 10, the system will notify the physician or case advisor of this fact.” *Id.* at 11:18-24.

90. Douglas also discloses automatically determining whether the compiled data varies from one or more thresholds to become significant for one or more of the clients. For instance, Douglas discloses that “[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. More specifically, Douglas discloses the identification of the health risk—“a threatening situation”—based on “the difference between current data and goals.” *Id.* at 11:18-19. As explained above, Douglas arrives at this difference by assessing the variation between patient data and thresholds associated with the goals.

(h) *Limitation 1[g]: automatically communicating alerts in response to the compiled data varying from the one or more thresholds to become significant for the one or more of the clients.*

91. As explained for Limitation 1[f], Douglas’s system identifies when a health risk is present for a patient based on the compiled data varying from the goals’ corresponding thresholds. And if it so-identifies a health risk, it—via an “‘alarm’ option”—automatically communicates an alert. Douglas at 11:11-17.

3. *Claim 3: The method according to claim 1, further comprising: establishing desired outcomes for the client associated with treatment or assistance utilizing a wizard application.*

92. As described above for Limitation 1[d], Douglas’s system establishes desired outcomes—in the form of goals 52, 61, and 62—for the client associated

with treatment or assistance needed by the client. And Douglas's system does so utilizing a wizard application. As a POSITA would have understood, a wizard application is "[a]n interactive help utility within an application that guides the user through each step of a particular task." Microsoft at 573. In Douglas, the task is establishing goals 52, 61, and 62 for the patient, and Douglas breaks this task down into discrete steps to guide a user therethrough. See Douglas at FIGs. 4-6.

93. Douglas's wizard application first accepts "baseline values corresponding to the vital signs and patient characteristics at the beginning of his or her participation in the program." Douglas at 7:17-26, FIG. 4. The wizard application then provides the user with a "Design option 50" through which the user "can design a new program ... for the patient." *Id.* at 7:29-32, FIG. 4. Under that design option, Douglas's wizard application "prompts the [user] ... to assign intensity levels 51" for various aspects of the program, including "the patient's diet, exercise, stress management, need for group support, anticipated compliance, and pharmaceutical requirements." *Id.* at 7:33-37, FIG. 5. With this information, "the system generates a set of goals 52 or milestones for the patient." *Id.* at 8:1-9, FIG. 5.

94. Douglas's wizard application also presents the user with a "Program Detail option 54," which allows the user to "view details as to how the suggested goals may be implemented," by showing "recommended one month goals 61 and

final goals 62.” *Id.* at 8:1-9, FIG. 6. Finally, the wizard application allows the user to “edit 64 the suggested program.” Douglas at 8:10-13, FIG. 6.

4. **Claim 4:** *The method according to claim 3, wherein the wizard application receives at least a main heading, a start date, a projected closure date, and a desired outcome description.*

95. As explained in Claim 3, Douglas discloses a wizard application that establishes goals for a client as part of a suggested program. Douglas’s FIG. 6, annotated and reproduced below, depicts the suggested program:

HeartLand 70 Fig 6

Projected Closure Date

Start Date

Main Heading

Desired Outcomes Description

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 2/1/98	1 month	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	26.64	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	5.5
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/da	325 mg/da	325 mg/da
- hydrochlorothzid.	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 63

EDIT 64

OPTIONS...

Douglas’s FIG. 6 (Annotated)

The suggested program’s goals include a main heading (e.g., “Physical Activity”), a start date (“Starting Date 2/1/98”), a projected closure date (“1 month”), and a desired outcome description (e.g., “25/6/4” “minutes / x-week / RPE” of exercise).

Douglas's wizard application receives the main heading, start date, projected closure date, and desired outcome description to display them as shown in FIG. 6.

96. Douglas's wizard application also allows "[t]he physician or case advisor ... [to] edit 64 the suggested program to modify the goals by making appropriate selections." Douglas at 8:10-13; Claim 3. This goal-modification would have at least obviously included the user's ability to edit the goals' main heading, start date, projected closure date, and desired outcome description, with these edited aspects thereby being received by the wizard application. This ability would have advantageously furthered Douglas's objective of creating "customized ... modification programs" for patients (*id.* at 2:16-19, 2:37-38, 6:1-2) and would have been exercised when doing so was in the patient's best interests based on the physician's or case advisor's professional judgement.

5. *Claim 6: The method according to claim 1, wherein the data includes at least intervention plans, desired outcomes and objectives, recorded activities, and general notes.*

97. Douglas's data contains intervention plans, including positive interventions, in which "[u]sers may earn points for good participation in the program and by reaching certain milestones," such as "good attendance at meetings ... or losing a certain amount of weight." Douglas at 16:15-25. Those intervention plans also include "[e]xercise and stress management programs ... designed ... to lie within the individual patient's ability range." *Id.* at 16:32-35. These intervention

plans further include negative interventions, such as “notify[ing] the physician ... that ... goals are not being met,” which “must ... be addressed by the physician.” *Id.* at 11:18-12:2. And “if a health risk is present ... the system will automatically send an alarm to the physician ... and require his or her immediate action.” *Id.* at 11:11-17. Being triggered or based on updated patient health data in Douglas’s system, these intervention plans are part of the system and thus also constitute data. Indeed, such would be “information needed by a user of the system,” all of which “is located in the databases 522.” *Id.* at 24:35-37.

98. Douglas’s data further includes desired outcomes and objectives, in the form of Douglas’s goals 51, 61, and 62. Limitation 1[d](discussed above). Recorded activities, too, are included in Douglas’s data, such as the number of packs of cigarettes the patient smokes per day, the patient’s physical activity, including the duration, frequency, and intensity of the patient’s exercise, the percentages of certain types of food consumed by the patient, and the patient’s seatbelt use. Douglas at FIG. 4.

99. Finally, Douglas’s data also includes general notes, as 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. Considering “the case administrator sets up a new patient based on information contained in the patient prescription form,” these general notes are

entered into Douglas's system as data. *Id.* at 7:11-12, FIG. 60 (blocks 1004-1008). Correspondingly, Douglas's FIG. 4 includes 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, indicating the case administrator's entry of the physician's general notes as data (Compare FIG. 4 with FIG. 2), indicating that these general notes were entered to set the patient's baseline.

100. To the extent being argued that all of the above data are not "compiled," first, they are, in at least that Douglas's system handles multiple patients, each with their own intervention plans, desired outcomes and objectives, recorded activities, and general notes (Douglas at 21:14-15, FIG. 57 (showing physicians with multiple patients)), which is therefore compiled in Douglas's databases 522 (*id.* at 24:35-37) ("[a]ll the information needed by a user of the system is located in the databases 522")). And second, the claims only require compiling data "associated with at least performance of the desired outcomes" (Limitation 1[e]), which Douglas's system does (Limitation 1[e]).

6. Claim 7:

- (a) *The method according to claim 1, further comprising: determining whether the data required is received from each of the providers; and***
- (b) *sending an alert to one or more providers in response to determining there is missing data for one or more clients associated with the one or more providers.***

101. Douglas discloses sending an “alert” to a client’s provider should the client’s data indicate a “threatening” situation. Limitations 1[f]-1[g] (discussed above). Given that patient data may indicate a “threatening” or “potentially dangerous” situation (Douglas at 11:11-19), it would have been beneficial for Douglas’s system to determine whether patient data was missing and, if so, send an alert to the provider associated with the patient. Doing so would have encouraged the provider to enter the missing data (Limitation 1[e](providers enter patient data)), thereby allowing Douglas’s system to identify (and potentially uncover) a threatening or potentially dangerous situation indicated by the data.

7. Claim 10: *The method according to claim 1, further comprising: prompting the providers to provide data associated with assigned clients.*

102. Douglas’s disclosed or the fields for entering patient data (Limitation 1[b]) prompt the providers to provide data associated with the clients by providing a space for entering data labeled with the type of data that is to be entered (Douglas at FIG. 4 (fields 46 and 48 for receiving, e.g., “Blood Pressure” data, as labeled in

fields 44)), Douglas at FIG. 46 (providing a space for entering, e.g., “TOTAL ... CALORIES”), Wright at FIG. 4 (providing a space for entering, e.g., “Heart Rate”)).

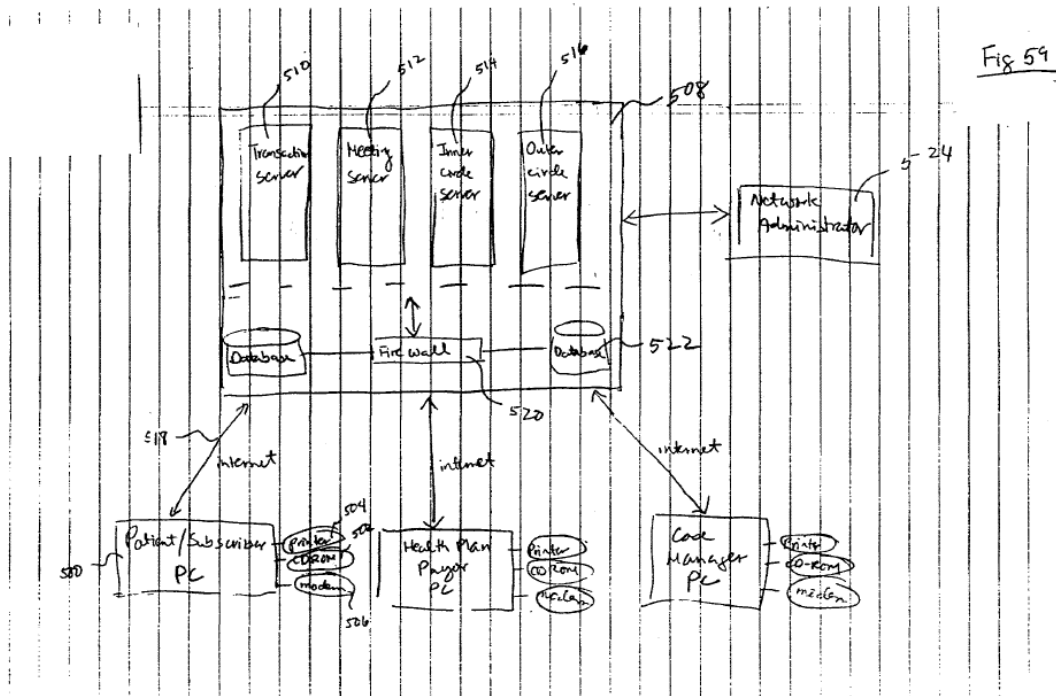
8. Claim 11

(a) Limitation 11[p]: A system for tracking goal progression, the system comprising:

103. See my Section VII.A.2(a) (VII.A.2).

(b) Limitation 11[a]: a server that communicates with communications devices through a transceiver utilizing one or more networks, the server includes a processor that executes a client management program to:

104. Douglas discloses that its system includes a server that communicates with communications devices utilizing one or more networks, as Douglas describes “PC[s] 500 electronically linked to network server 508 via the Internet 518” (Douglas at 24:12-34), shown in Douglas’s FIG. 59.



Douglas's FIG. 59

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

105. The communications between PCs 500 and network server 508 are also through a transceiver, which a POSITA would have understood to be “[a] device that can both transmit and receive signals.” Microsoft at 527. 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. Specific transceivers that

Douglas discloses—any one or more of which disclose the claimed transceiver—include “high-speed modem 506 connected to the PC 500” (*id.* at 24:22-24) and transceivers for establishing a “cellular connection [or] satellite link ... [with the] network server” (*id.* at 8:28-31).

106. 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. That system manages a patient in that it:

- provides for the creation of a patient account (*id.* 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 (blocks 1052, 1062)).

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

107. A POSITA would have understood that Douglas’s 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.

108. 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. Such handling of sensitive medical records is what the relied-on portions of Douglas’s system do, including:

- Setting up secure provider accounts that have access to patient data (Limitations 11[b], 11[d]);
- Compiling patient data (Limitations 11[c], 11[f]);
- Establish goals and assess the patient’s compliance therewith based on patient data (Limitations 11[e], 11[g], 11[h], Claim 14).

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.

109. 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.

110. Nevertheless, it also would have been advantageous for the processor executing 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; *id.* at FIG. 59. 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 (*id.* 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 the health data were stored in databases 522. *Id.* 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. *Id.* at 11:26-28, FIG. 60.

111. Therefore, a POSITA would have understood that locating the processor executing 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 id.* at 10:7-9, 19:29-30, 22:12-14, 24:18-19, 25:5-9. In this arrangement, the health data could remain behind firewall 520 that “protects confidentiality of health plan data” (*id.* at 25:14-16, FIG. 59 (showing databases 522 behind firewall 520)), while it was “correlate[d] ... with the program goals” (*id.* at 11:26-28) as opposed to being transmitted outside of that firewall for such correlation where it would not have had the firewall’s protection.

- (c) ***Limitation 11[b]: receive input establishing accounts for providers serving clients, wherein the clients are individuals receiving treatment or assistance, and wherein the accounts are stored in a server available through one or more networks;***

112. Limitation 1[a] and Limitation 11[a], above.

- (d) ***Limitation 11[c]: create fields required for compiling data associated with the treatment or assistance of each of the clients from the providers;***

113. Limitation 1[b] and Limitation 11[a] above.

- (e) ***Limitation 11[d]: assign each of the clients to one or more of the providers in response to selections from an administrator, wherein the one or more of the providers include at least individuals available to treat or assist the client;***

114. Limitation 1[c] and Limitation 11[a] above.

- (f) *Limitation 11[e]: establish desired outcomes for each of the clients based on treatment and assistance required to meet the desired outcomes, wherein one or more thresholds indicates whether the desired outcomes are met;*

115. Limitation 1[d] and Limitation 11[a]) above.

- (g) *Limitation 11[f]: compile data associated with at least performance of the desired outcomes by each of the clients received from the providers utilizing computing or communications devices in communication with the server;*

116. Limitation 1[e] and Limitation 11[a] above.

- (h) *Limitation 11[g]: automatically determine whether 1) the desired outcomes are being met in response to rules governing data analysis that are utilized based on the compiled data, and 2) the compiled data varies from one or more thresholds to become significant for one or more of the clients; and*

117. Limitation 1[f] and Limitation 11[a] above.

- (i) *Limitation 11[h]: automatically communicate alerts in response to the compiled data varying from the one or more thresholds to become significant for the one or more of the clients;*

118. Limitation 1[g] and Limitation 11[a] above.

- (j) *Limitation 11[i]: a database in communication with the server configured to store the data and information associated with the clients and the providers.*

119. 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. These databases include the patient data. Limitation 11[a] (above).

120. The databases also include the patients’ “goals and parameters” (Douglas at 11:12-17) approved by their physicians (Limitation 1[d] (above)), the patients’ journal entries accessible by their physicians (*id.* at 10:31-36, 24:31-33), recommendations to patients made by their physicians (*id.* at 21:25-28), and those physicians’ accounts (Limitation 1[a] (above)), each of which constitute “information associated with the clients and the providers.”

9. *Claim 14: The system according to claim 11, wherein the server further establishes the desired outcomes for the client utilizing a wizard application including at least a main heading, a start date, a projected closure date, and a desired outcomes description.*

121. Claims 3 and 4, above. Douglas’s wizard application, as part of Douglas’s system, is, or obviously would have been, implemented by network server 508 for the reasons explained for Limitation 11[a] (above).

122. Further, as shown in Claim 4 (above), that wizard application includes a main heading, a start date, a projected closure date, and a desired outcomes description.

10. *Claim 16*

(a) *Limitation 16[p]: A controller comprising*

123. Douglas discloses a controller, as it discusses a network server 508 that implements Douglas’s system. Douglas at 24:3-25:21, FIG. 59. The ’142 Patent

makes no relevant distinction between “controller” and “server.” ’142 Patent at 1:52-56 (“The illustrative embodiments also provide a computer, server, or controller including a processor...”); compare *id.* at 3:60-61 (“FIG. 2 is a block diagram of a controller”) with 8:62-63 (“FIG. 2 is a block diagram of a server 200”). This is further evidenced by claims 17-19 referring to “[t]he server”—not the controller—“according to claim 16.” ’142 Patent at claims 17-19.

(b) *Limitation 16[a]: a processor for executing a set of instructions; and*

124. Douglas discloses a processor within network server 508 for executing a set of instructions, specifically those for implementing Douglas’s system. Limitation 11[a](above).

(c) *Limitation 16[b]: a memory for storing the set of instructions, wherein the set of instructions are executed by the processor to:*

125. 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. A POSITA would have known that a processor required a memory—at a minimum, RAM—to store the instructions that the processor executed.

126. Should that well-understood proposition be disagreed with, the use of a memory to store software was within a POSITA’s general knowledge. 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 system—analyzes patient data (*id.* at ¶ [0019]). See my below Section VII.C.1. And using such a memory to store Douglas’s system amounts to nothing more than the use of the memory to perform its established, software-storing function. Chitiveli at ¶¶ [0044]-[0046], FIG. 2.

- (d) *Limitation 16[c]: receive input establishing accounts for providers serving clients, wherein the clients are individuals receiving treatment or assistance, and wherein the accounts are stored in a server available through one or more networks;*

127. Limitation 11[b], above.

- (e) *Limitation 16[d]: create fields required for compiling data associated with the treatment or assistance of each of the clients from the providers;*

128. Limitation 11[c], above.

- (f) *Limitation 16[e]: assign each of the clients to one or more of the providers in response to selections from an administrator, wherein the one or more providers include at least individuals available to treat or assist the client;*

129. Limitation 11[d], above.

- (g) *Limitation 16[f]: establish desired outcomes for each of the clients based on treatment and assistance required to meet the desired outcomes, wherein one or more thresholds indicates whether the desired outcomes are met;*

130. Limitation 11[e], above.

- (h) *Limitation 16[g]: compile data associated with at least performance of the desired outcomes by each of the clients received from the providers utilizing computing or communications devices in communication with the server;*

131. Limitation 11[f], above.

- (i) *Limitation 16[h]: automatically determine 1) the desired outcomes are being met in response to rules governing data analysis that are utilized based on the compiled data, and 2) the compiled data varies from one or more thresholds to become significant for one or more of the clients; and*

132. Limitation 11[g], above.

- (j) *Limitation 16[i]: automatically communicate alerts in response to the compiled data varying from the one or more thresholds to become significant for the one or more of the clients.*

133. Limitation 11[h], above.

11. Claim 17: The server according to claim 16, wherein the data includes at least intervention plans, desired outcomes and objectives, recorded activities, and general notes.

134. Claim 6, above.

B. Ground 2 – Claims 1, 3, 4, 6, 7, 10, 11, 14, 16, and 17 in View of Douglas and Wager

1. Wager Overview

135. 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], Title and Abstract. An exemplary such “workforce management interface 106” (*id.* at ¶ [0011]) is shown in Wager’s FIG. 2, reproduced below:

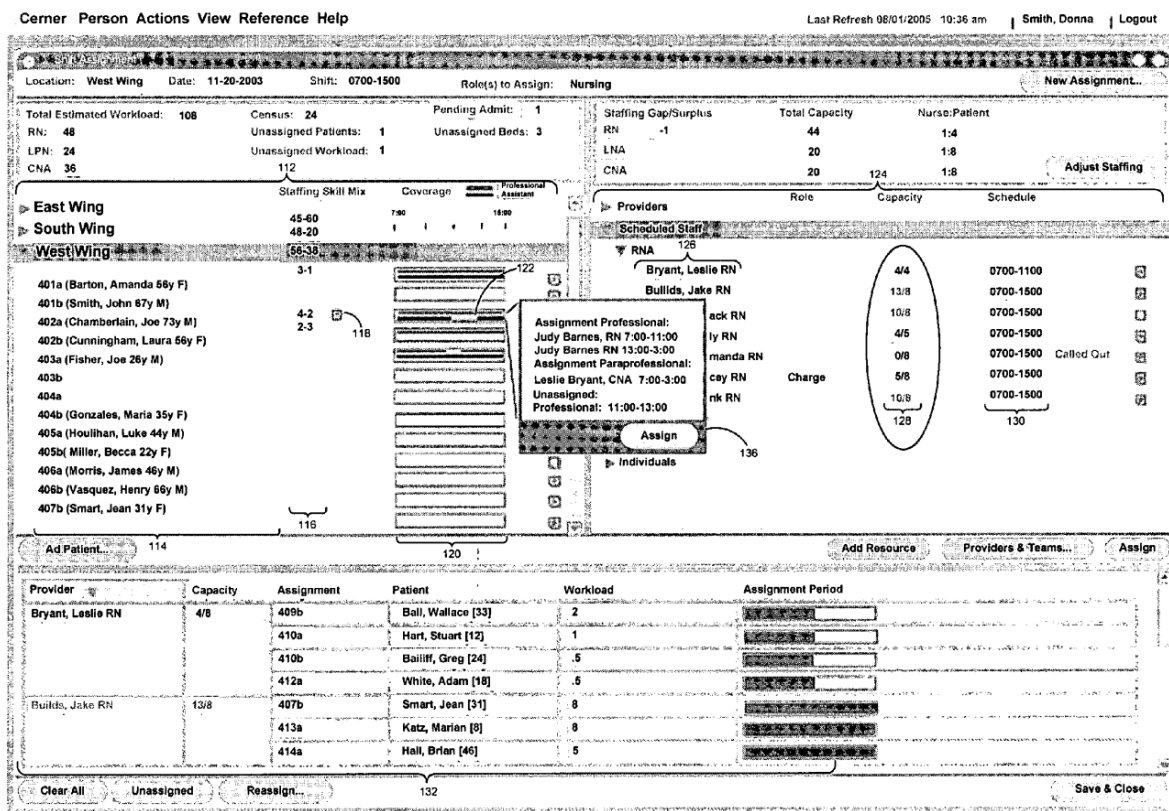


FIG. 2

136. 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]. Specifically, 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.” *Id.* at ¶ [0012]. “[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.” *Id.* at ¶ [0014]. “Provider population profile 124 ... may further include a provider schedule” for each provider “indicating a provider’s availability ... for [certain] times or periods.” *Id.* at ¶ [0015].

137. 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]. 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. *Id.* at

¶¶ [0018]-[0022]. Per Wager, 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.” *Id.* at ¶ [0021].

2. *Modification of Douglas*

138. 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, 6:6-14. Consistently, Douglas’s physicians treating those patients have varied skill sets. *Id.* at FIG. 57 (showing “Specialty[s]” of “Cardio” and “Primary”).

139. Should it be found that Douglas does not disclose or render logical the case administrator’s assignment of the patient to a physician based on the administrator’s selections (Limitation 1[c], above), it would have been beneficial 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. This modified system is referred to as the Douglas-Wager System.

3. *Motivation to Combine*

140. 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 (see my Section VII.B.2, above). Such is explicitly taught by Wager, whose "invention overcome[s] ... problems," including "the unit or other managers ...[needs to] rely on manual notes, memory and intuition 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 ¶¶ [0005]-[0007].

141. The Douglas-Wager System would have also helped ensure that the assigned physician had the capacity to effectively treat the patient. Shown by Douglas's FIG. 51, there are many patients on Douglas's system. Douglas at FIG. 51 ("12,984" patients on the program). And those patients were not evenly distributed amongst physicians. *Id.* at FIG. 57. 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. Through use of Wager's interface, such capacity issues "may be more effectively managed against fluctuating clinical

demands” (Wager at ¶¶ [0006], [0008], and [0020]), ultimately increasing quality of care for the patient.

4. Claims 1, 3, 4, 6, 7, 10, 11, 14, 16, and 17

142. My opinions regarding Claims 1, 3, 4, 6, 7, 10, 11, 14, 16, and 17 for Ground 2 are the same as for Ground 1 (see my Section VII.A), excepting Limitations 1[c], 11[d], 16[e], additions to which are addressed below.

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

143. In the Douglas-Wager System (see my Sections VII.B.2-VII.B.3), the case administrator would have assigned to each patient a physician having a capacity and skill set that matched the patient’s time- and skill-needs. Or multiple physicians, should such be required (see my Section VII.A.2(d) (Limitation 1[c])), at least to address a patient’s various needs. Wager at ¶¶ [0018], [0020] (emphasizing that providers’ skill sets need to be matched to a patient’s needs).

144. The Douglas-Wager System also discloses that such assignments would have been in response to selections from the administrator—i.e., of each of the patients and the physician to be assigned to the patient. 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]), which discloses selections from the administrator, and specifically, selections to indicate each patient and a provider for that patient (*id.* (“dragging” the provider’s name “on top of a patient name” constitutes “a patient [being] selected”)).

(b) ***Limitation 11[d]: assign each of the clients to one or more of the providers in response to selections from an administrator, wherein the one or more of the providers include at least individuals available to treat or assist the client,***

145. See my Section VII.B.4(a) (Limitation 1[c]), above.

(c) ***Limitation 16[e]: assign each of the clients to one or more of the providers in response to selections from an administrator, wherein the one or more of the providers include at least individuals available to treat or assist the client;***

146. See my Section VII.B.4(a) (Limitation 1[c]), above.

C. Grounds 3 and 4 – Claims 2 and 20 in View of Douglas and Chitiveli (Ground 3), and Douglas, Wager, and Chitiveli (Ground 4)

1. Chitiveli Overview

147. 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:

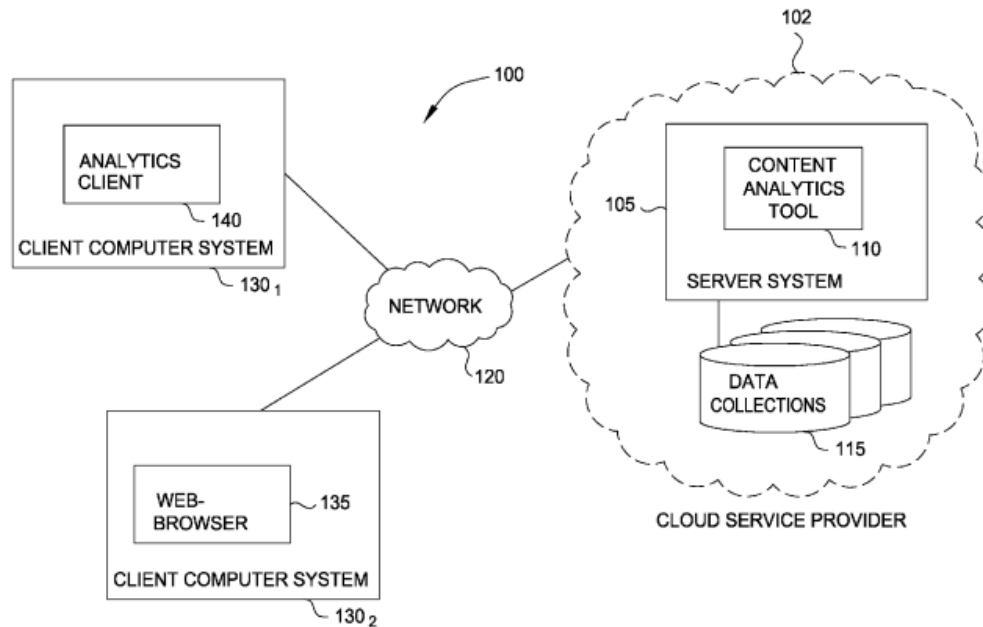


FIG. 1

Id. at ¶ [0035] and FIG. 1. That computing infrastructure includes “a cloud based service provider 102 hosting a server system 105 and also includes [client computing] systems 130₁₋₂, all of which are connected to a communications network 120.” *Id.* at ¶ [0035]. Client computing systems 130₁₋₂ can be “desktop or laptop computer systems” as well as “mobile telephone devices [and] tablet computers.” *Id.* at ¶ [0036].

148. 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]. 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.” *Id.* at ¶ [0036]. Content analytics tool 110 then performs “analytical processing” on the uploaded data to “generate periodic reports on the analyzed data to monitor progress on identified issues—or dynamically generate insights as new data is provided to the content analytics tool 140.” *Id.* at ¶ [0037].

149. 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.

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

- resides on a server (Chitiveli at FIG. 1; see my Section VII.A.8(b) (Limitation 11[a]));
- receives data from client/provider devices such as a “desktop or laptop computer system[.]” (Chitiveli at ¶ [0036]; see my Section VII.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 my Section VII.A.2(f) (Limitation 1[e])).

2. *Claim 2*

(a) *Modification of Douglas*

151. It would have been beneficial 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 provider computing or communications devices executing client applications to upload patient data to that server for analysis using Douglas’s system (*id.* at ¶¶ [0036]-[0037]).

(b) *Motivation to Combine*

152. As a POSITA would have recognized, such modification would have provided several benefits. First, it would have reduced overhead by eliminating the need to procure, maintain, and find physical 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 supervising”).

153. 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.”). 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”)). 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.

154. Should it be urged that an independent rationale is required to use a client application like Chitiveli’s analytics client 140 in the Douglas-Chitiveli system, such represents no more than the predictable use of a client application like Chitiveli’s to do the same thing that it does in Chitiveli. 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].

155. Further, Douglas’s network server 508 with its compliance monitoring and feedback system must be accessible by PCs 500 “via the Internet 518.” Douglas

at 24:12-26. As Chitiveli evidences, there were a finite number of predictable solutions for providing such access—“an analytics client 140” or “a web browser” (Chitiveli at ¶¶ [0035]-[0036])—rendering each an obvious option.

(c) ***Claim 2: 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.***

156. Ground 3: See my Section VII.A.2 (Claim 1).

157. Ground 4: See my Section VII.B.4 (Claim 1).

158. Grounds 3 and 4: See my Section 150. Douglas as modified by Chitiveli 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. That modified 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 my Section VII.A.2(f) (Limitation 1[e])) would have done so using a client application like Chitiveli’s analytics client 140. The client applications are client management programs, and they are utilized so that Douglas’s system can receive the data and track progress of the goals.

3. Claim 20

(a) Modification of Douglas

159. It would have been beneficial to modify Douglas such that network server 508 was accessible by—in addition to Douglas’s plurality of computing devices (Douglas at 24:3-13 and FIG. 59 (PCs 500))—by a plurality of mobile devices and a web interface as taught by Chitiveli (Chitiveli at ¶ [0036]).

(b) Motivation to Combine

160. First, modifying Douglas as described above in view of Chitiveli (*see* Sections VII.C.2(a)VII.C.2(b)) to be cloud-implemented would have included allowing access to Douglas’s server via mobile devices and a web interface as Chitiveli teaches. Chitiveli at ¶ [0036].

161. Independently, and without requiring cloud-implementation, as a POSITA would have understood, allowing access to Douglas’s network server 508 via a plurality of mobile devices, such “laptop computer systems,” “mobile telephone devices, and tablet computers” (Chitiveli at ¶ [0036]) would have been beneficial. Indeed, mobile devices are advantageously mobile. And, as a POSITA would have known, “[m]obility is a central feature of health care delivery.” Prgomet at 792. This is because physicians—such as Douglas’s—must often “move between patients, wards, clinics, laboratories, operating theaters, and offices,” and they “require information systems which provide access to data [and] resources ... where

and when they undertake work.” *Id.* Mobile devices, via their mobility, meet this requirement by providing “for information access anywhere, anytime.” *Id.* To illustrate, if Douglas’s physician was with a patient, with a mobile device, that physician would not be required to “search to find an accessible computer at a location away from the patient” (*id.*) in order to enter the patient’s updated health information. Douglas at 11:1-5.

162. A POSITA further would have seen using a web interface like Chitiveli’s (Chitiveli at ¶ [0036]) to access Douglas’s network server 508 as beneficial. To begin, it was known to a POSITA that accessibility to Douglas’s network server 508 would have been enhanced via a web interface. Indeed, “[w]herever an Internet ... enabled [device] is found” Douglas’s network server would have then been accessible, regardless of “what operating system” the device is running. InfoGrasp at 1. Further, a POSITA would have understood that using a web interface to access Douglas’s network server 508 would have reduced the need for updates to or management of a client application on the devices used to access the server. *Id.*

163. In any event, and as explained in Section VII.C.2(b), predictable and therefore obvious options for accessing a server like Douglas’s included web browsers like Chitiveli’s.

- (c) ***Claim 20: The controller according to claim 16, wherein the controller is accessible by a plurality of mobile devices, a plurality of computing devices, and a web interface.***

164. Ground 3: See my Section VII.A.10 (Claim 16).

165. Ground 4: See my Section VII.B.4 (Claim 16).

166. Grounds 3 and 4: Douglas’s network server 508—i.e., the claimed controller—is accessible by a plurality of computing devices, specifically, PCs 500 via the Internet 518. Douglas at 24:3-13, FIG. 59. And as explained in Section VII.C.3, it would have been beneficial to modify Douglas such that network server 508 was also accessible by a plurality of mobile devices and a web interface.

D. Grounds 5 and 6 – Claims 5, 12, 13, and 18 in View of Douglas and Koh (Ground 5), and Douglas, Wager, and Koh (Ground 6)

1. Koh Overview

167. Koh “explores data mining applications in healthcare,” including “in major areas such as the evaluation of treatment effectiveness.” Koh at 64, 66. 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.” *Id.* at 65. Such copious data sets are “generated by healthcare transactions,” and they are “too complex and voluminous to be processed and analyzed by traditional methods.” *Id.* For this reason, and because data mining can, e.g., “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. *Id.*

168. 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.

2. *Modification of Douglas*

169. 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. “This is done by correlating patient information such as age, sex, [and] weight,” and “the patient’s medication and other health conditions” to “established medical protocols for that type of patient.” *Id.* at 8:1-13. These recommendations are made by Douglas’s system not just at the outset of the patient’s treatment, but throughout the patient’s treatment. *Id.* at 21:9-12.

170. Douglas does not explicitly disclose—apart from “established medical protocols”—how those initial or subsequent recommendations are made. 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. Indeed, Douglas’s patients include “those

with chronic ailments,” those “who are recovering from medical procedures,” and those “who simply want to maintain their health and prevent or reduce the risk of such ailments.” *Id.* at 6:6-14. And being on Douglas’s system, each of these patients would have been associated with a therapeutic plan including goals (*id.* at 8:2-9) and compiled data (see my Section VII.A.2(f) (Limitation 1[e])). *Id.* at FIG. 50.

171. Douglas’s system also tracks outcomes for these patients. For one, FIG. 50 breaks down its patients into “participating patients complying with the program 368, participating patients put on probation due to lack of compliance 372, and patients terminated 376.” Douglas at 22:21-25. 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.” *Id.* at 23:16-22. Specific examples are shown in Douglas’s FIG. 55, which include “information as to the percent of compliant subscribers who had an emergency room (“ER”) visit 420” (*id.* at 23:16-22) as well as those who were re-hospitalized for angina, suffered a heart attack (myocardial infraction (“MI”)), underwent a coronary artery bypass graft (“CABG”) or percutaneous transluminal coronary angioplasty (“PCTA”), or passed away (*id.* at FIG. 55).

172. In my opinion, it would have been advantageous 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). 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.

3. *Motivation to Combine*

173. 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. As to example (1), “[b]y comparing and contrasting ... courses of treatments” and “outcomes,” like Douglas’s therapeutic plans and outcomes, “which treatments work best and are most cost-effective” would have been identified. *Id.* at 66. 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, and “design appropriate interventions” like modifications to Douglas’s therapeutic plans to “reduce the number of hospital admissions and claims,” which is a negative outcome that Douglas specifically seeks to avoid (Douglas at FIG. 55). *Id.*

4. Claim 5

(a) *Limitation 5a: The method according to claim 1, further comprising: data mining the compiled data to determine best practices; and*

174. Ground 5: See my Section VII.A.2 (Claim 1).

175. Ground 6: See my Section VII.B.4 (Claim 1).

176. Grounds 5 and 6: The Douglas-Koh System (See my Sections VII.D.2-VII.D.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.

(b) *Limitation 5b: recommending the best practices to the providers in response to the best practices being associated with a client assigned to the providers.*

177. Grounds 5 and 6: 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.

178. In the Douglas-Koh System, that therapeutic program and modifications to the same reflected best practices as determined through data mining. See my Section VII.D.4(a) (Limitation 5[a]).

5. ***Claim 12: The system according to claim 11, wherein the database is a relational database management system performing data mining to analyze the data from the providers to associate best practices with each of the clients.***

179. Ground 5: See my Section VII.A.8 (Claim 11).

180. Ground 6: See my Section VII.B.4 (Claim 11).

181. Grounds 5 and 6: See my Section VII.D.4. The Douglas-Koh System discloses that the database is a relational database management system. Specifically, Douglas’s databases are “relational databases 522” (Douglas at 24:28-30, 22:6-7) (Douglas’s disclosed “SQL” (*id.* at 24:28-30) is a language used by a database management system) 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 patients. See my Section VII.D.2. Again, Douglas’s compiled data is from the providers. See my Section VII.A.2(f) (Limitation 1[e]).

6. ***Claim 13: The system according to claim 11, wherein the server is configured to recommend one or more best practices to the plurality of providers in response to the data of the clients being associated with the best practices.***

182. Ground 5: See my Section VII.A.8 (Claim 11).

183. Ground 6: See my Section VII.B.4 (Claim 11).

184. Grounds 5 and 6: See my Section VII.B.4 (Limitation 5[b]).

7. ***Claim 18: The server according to claim 16, wherein the set of instructions are further executed to: recommend best practices to the providers in response to historic success with the clients.***

185. Ground 5: See my Section VII.A.9 (Claim 16).

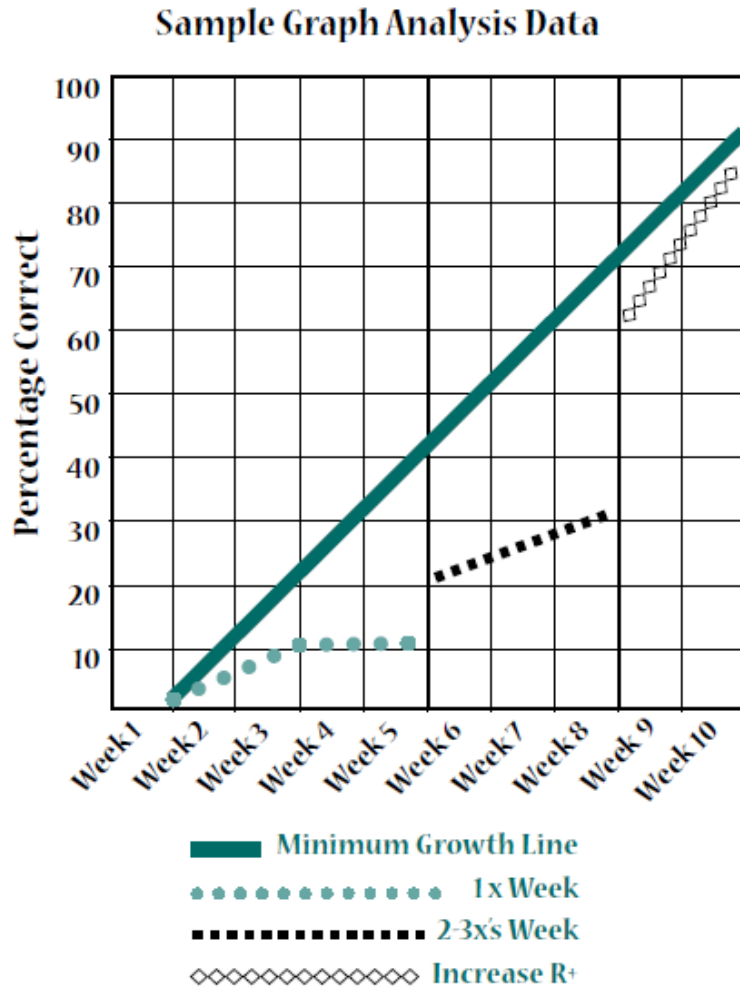
186. Ground 6: See my Section VII.B.4 (Claim 16).

187. Grounds 5 and 6: See my Section VII.D.4 (Claim 5). In the Douglas-Koh System, it would have been beneficial for the processor executing Douglas's 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 my Section VII.A.8(b) (Limitation 11[a]). Further, In the Douglas-Koh System, that therapeutic program and modifications to the same reflected best practices determined to be historically successful through data mining. See Section VII.D.4(a) (Limitation 5[a]).

E. Grounds 7 and 8 – Claim 9 in View of Douglas and Virginia (Ground 7), and Douglas, Wager, and Virginia (Ground 8)

1. *Virginia Overview*

188. Virginia “describe[s] how to help persons with autism” in “acquiring skills and learning behaviors that will increase their success in adulthood.” Virginia at 5, 12. Specifically, Virginia utilizes a “minimum growth line”-based approach. *Id.* at 27. In this approach, at the beginning of a teaching period, a teacher establishes a “baseline” performance of a student. *Id.* Then, a “goal stipulates a mastery criterion ... [to be achieved] by the end of the teaching period.” *Id.* A line is then be drawn on a graph “between the baseline ... and the goal criterion,” which “is called the *minimum growth line*.” *Id.* Virginia depicts in FIG. 4, reproduced below, a graph showing a sample minimum growth line and ongoing performance data collection:



Virginia FIG. 4

189. To evaluate progress, the teacher also plots the student’s performance data over time to “compare the student’s performance against [the minimum growth] line.” Virginia at 27. If “the student demonstrates performance that is on or above the line, then the student is on track to master the goal.” *Id.* at 27-28. But “[i]f the student demonstrates performance below that line for three data points, then the teacher should revise their teaching strategy.” *Id.* at 28.

190. While Virginia applies its progress-monitoring method to an autistic student's performance in learning skills and behavior to transition to adulthood (*see* Virginia at 5, 27-28), Virginia is in the same field of endeavor of the '142 Patent, which is directed to tracking goal progression (*e.g.*, '142 Patent at Abstract, 1:39-41, 4:34-36, 57-59), including of "individuals with ... autism" (*id.* at 1:19-23) and students generally (*id.* at 4:20-24) ("the subject may be a ... student"). It is also reasonably related to a problem faced by the inventors of the '142 Patent: how to assess an individual's progress toward a goal. *See, e.g.*, '142 Patent at Abstract, 1:12-16, 27-35, 4:56-69. Virginia is therefore analogous prior art to the '142 Patent.

2. *Modification of Douglas*

191. It would have been beneficial to modify the Douglas system to evaluate compliance with the program by analyzing the patient's updated data using a minimum growth line-based approach as discussed in Virginia. Virginia at 27-28. In such a modified system, updated data related to the patient (such as the number of packs of cigarettes smoked per day; duration, frequency, and intensity of physical activity; weight; etc.) for corresponding goals (such as related to cigarette smoking, physical activity, weight, etc.) is evaluated "at the beginning" of the program to establish a "baseline," a program "goal stipulates a mastery criterion" value for the data to be achieved "by the end" of the program, and a minimum growth line is extended from the baseline data value the goal data value. Douglas at 7:20-29, 8:10-

11, 11:3-5, 26-28, FIGS. 4, 6; Virginia at 27. As the patient progresses through the program, if the updated data “is on or above the line,” then the patient “is on track to master the goal,” but if the updated data is “below that line for three data points,” then the program is evaluated and may need to be “revise[d].” Virginia at 27-28. The modified Douglas system is referred to herein as the Douglas-Virginia system.

3. *Motivation to Combine*

192. First, a POSITA would have been motivated to use a minimum growth line-based approach like in Virginia to evaluate progress toward meeting goals in the Douglas system in order to provide an “evidence based” evaluation of the sufficiency of the progress to meet the goals in a specified time period, as taught by Virginia. Virginia at 27-28. That is, Douglas discusses program goals for completion in “certain period[s],” but doesn’t specify in detail how to evaluate whether progress is sufficient to meet a goal by the specified time Douglas at 7:5-7 (“cease smoking or ... lose a targeted amount of weight within a certain period”), 8-10 (“3-month targets”), 8:10-11 (“one month goals 61 and final goals 62”). But Virginia teaches that the minimum growth line approach enables an evaluation of whether an individual attempting to meet a goal is “on track to master the goal” by the “end” of a corresponding “period.” Virginia at 27-28.

193. Second, a POSITA would have been motivated to use such a modified system in order to improve the chances of actually meeting goals of the program by

a specified deadline, as taught by Virginia. Virginia at 27-28. That is, Douglas discusses “determine[ing] whether to modify the patient's therapeutic program” “if the patient is not progressing toward program goals,” but doesn’t discuss in detail the timing of when to make changes. Douglas at 11:35-12:2. However, Virginia teaches iteratively evaluating whether the individual “demonstrates performance below [the minimum growth] line for three data points,” and, if so, correspondingly revising the program to enable “mastering the skill at the targeted criterion,” where if an initial revision results in “performance [being] improved, but not enough to master the skill within the time left,” then further revisions are made to ensure compliance by the target date. Virginia at 28.

194. Third, a POSITA would have understood that a minimum growth line approach like that in Virginia was known, and could be applied to evaluating the timeliness of progress in a known behavioral modification program like that of the Douglas system, and that such an approach would work Douglas’ system in essentially the same way that it works in Virginia, with the results of the combination being predictable. Douglas at 7:20-29, 8:10-11, 20:5-11, FIGS. 4, 6; Virginia at 27-28.

4. **Claim 9**

- (a) ***Limitation 9a: The method according to claim 1, further comprising: tracking a time and occurrence of number of client actions in response to input from the providers; and***

195. Ground 7: See my Section VII.A.2 (Claim 1).

196. Ground 8: See my Section VII.B.4 (Claim 1).

197. Grounds 7 and 8: Douglas discloses tracking a time and occurrence of a number of client actions, as the Douglas “system accepts updated patient data,” where for goals related to cigarette smoking, physical activity, weight, etc., the data includes the number of packs of cigarettes smoked per day; the duration, frequency, and intensity of physical activity; weight; etc. Douglas at 7:20-29, 8:10-11, 11:3-5, 26-28, FIGS. 4, 6. And, per Douglas, such tracking is responsive to input from providers, as the updated data includes “data entered by the physician during office visits.” *Id.* at 11:3-5.

- (b) ***Limitation 9b: indicating progress based on rules toward desired outcomes for the clients, wherein the rules compare data against a minimum growth line.***

198. Grounds 7 and 8: Douglas indicates progress toward desired outcomes for the clients, as it “generates reports on patient progress based on the data.” Douglas at 20:33-34; 11:26-12:2. And, as discussed in Section VII.E.2, the Douglas-Virginia system determines such progress based on rules that compare data against a minimum growth line, as it evaluates progress using rules providing a minimum

growth line-based approach such as discussed in Virginia, in which, as the patient progresses through the program, updated data is compared against a minimum growth line extending from a “baseline” data value to “a mastery criterion” value. Virginia at 27-28.

In signing this Declaration, I recognize that the Declaration will be filed as evidence in a contested case before the Patent Trial and Appeal Board of the United States Patent and Trademark Office. I also recognize that I may be subject to cross-examination in the case, and that cross-examination will take place within the United States. If cross-examination is required of me, I will appear for cross-examination within the United States during the time allotted for cross-examination.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Dated: <i>27 February, 2024</i>	<u>Respectfully submitted,</u> <i>Bryan P. Bergeron MD</i> BRYAN BERGERON, MD
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