

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 IPR2024-00618
Patent 10,061,812 B2

DECLARATION OF DR. BRYAN BERGERON
IN SUPPORT OF PETITION FOR INTER PARTES REVIEW OF U.S.
PATENT NO. 10,061,812 B2

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LIST OF DOCUMENTS CONSIDERED

Exhibit	Shorthand	Description
1001	'812 Patent	U.S. Patent No. 10,061,812 B2
1002	Douglas	Pub. No. WO 1999/003045 A1
1003	Wager	Pub. No. US 2006/0149589 A1
1004	Chitiveli	Pub. No. US 2013/0179450 A1
1005	Klotsche	J. Klotsche et al., <u>The DETECT adherence score—structure and psychometric exploration of a novel approach to measure adherence to drug and non-drug interventions in primary care</u> , 20 Int. J. Methods Psychiatr. Res. 82 (2011)
1006	Klotsche1Archive	Printout of https://web.archive.org/web/20111208022202/http://onlinelibrary.wiley.com:80/journal/10.1002/(ISSN)1557-0657 , evidencing 2011 public availability of Klotsche
1007	Klotsche2Archive	Printout of https://web.archive.org/web/20130215121952/http://onlinelibrary.wiley.com:80/doi/10.1002/mpr.v20.2/issuetoc , evidencing 2011 public availability of Klotsche
1008	ArchiveDec	Declaration of Nathaniel E Frank-White
1009	Koh	Hian Chye Koh & Gerald Tan, <u>Data Mining Applications in Healthcare</u> , 19 J. Healthcare Information Management 64 (2005)
1010	KohArchive	Printout of: https://web.archive.org/web/20050418095732/http://www.himss.org/ASP/publications_jhim_issue.asp?issue=3/30/2005 , evidencing 2005 public availability of Koh
1011	Hall-Ellis	Declaration of Sylvia D. Hall-Ellis, Ph.D.
1014	Microsoft	<u>Microsoft Computer Dictionary</u> (5th ed. 2002)
1018	NetSuite	Printout of https://web.archive.org/web/20111102042326/https://www.netsuite.co.uk/portal/uk/resource/articles/cloud-computing.shtml
1020	Prgomet	Prgomet et al., <u>The Impact of Mobile Handheld Technology on Hospital Physicians' Work Practices and Patient Care: A Systematic</u>

Exhibit	Shorthand	Description
		<u>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)
1023	VirginiaArchive	Printout of https://web.archive.org/web/20111208001834/http://www.doe.virginia.gov/special_ed/disabilities/autism/index.shtml , evidencing 2011 public availability of Virginia

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. 10,061,812 B2 (the “’812 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 ’812 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 ’812 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 '812 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 1433, 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, 6, 7, 9, 10, 11, 16, and 17 in View of Douglas, Klotsche, and Virginia

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.” Douglas at Abstract.

40. In Douglas, a case administrator subscribes a patient to Douglas’s system “based on information contained in the patient prescription form” (Douglas at 6:33-7:20, FIG. 60), which is filled out and signed by the physician (*id.* at FIG. 2). Through that process, an account is created into which the patient can “log[] in” to “view their levels of compliance and achievement of goals.” *Id.* at 8:29-31, 12:3-7. The patient’s physician then updates that account as the patient progresses through the system, both in terms of the goals and the patient data used to assess achievement of those goals. *Id.* at 3:13-14, 11:1-5, 11:26-28.

41. “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.

42. 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 "recommend that the program be modified to suit the patient's condition." *Id.* at 11:18-25.

43. Douglas's system is implemented on a "network server 508" including "relational databases 522 ... that contain all the health plan data." Douglas at 24:12-34, FIG. 59. Being so-implemented, the system is accessible by "patients, physicians," and other users "via the Internet 518" and using "a PC 500." *Id.* at 24:3-26, FIG. 59.

2. Klotsche

(a) Overview

44. Klotsche teaches an "approach to measure adherence to drug and non-drug interventions in primary care." Klotsche at Title. As Klotsche explains, "patient compliance or rather adherence to medical measures and recommendations for lifestyle changes can pivotally influence the prognosis of the patients or disease progression." Klotsche at Abstract. "[O]n average 26% of all patients across various disease groups experience a good outcome by adhering ... to medical recommendations." *Id.* at 83. But measuring patient adherence to achieve these

prognostic benefits was “extremely difficult to the fact that the construct of ‘adherence’ is complex and comprised of many layers, and varies greatly in different disease groups.” *Id.* at Abstract.

45. To address these issues, Klotsche provides “a simple scoring scheme” that “cover[s] within one score both, pharmacologic and non-pharmacologic interventions in primary care”, namely, “drug adherence [and] behavioral adherence.” Klotsche at Abstract. Specifically, Klotsche’s score is based on a patient’s achievement of goals in areas targeted by the patient’s physician for improvement. *Id.* at 84-87. These target areas and associated goals are reproduced in TABLE 1, below (*id.* at 85-87).

TABLE 1: Klotsche’s Target Areas and Goals

Target Area	Goals
Increase physical activity	≥ 2 hours of physical activity per week
Reduce weight	Decrease waist circumference by 5%
Quit or reduce smoking	Cessation or reduction in daily cigarette smoking by $\geq 30\%$
Improve diabetes	Reduction of HbA1c to a specific physician target level or a level $< 7\%$ Hb
Improve cholesterol levels	Reduction of LDL/HDL-cholesterol by $\geq 10\%$, an LDL-cholesterol level ≤ 160 mg/dl, or total cholesterol level ≤ 200 mg/dl
Improve blood pressure	Reduction of mean arterial pressure (MAP) by $\geq 10\%$
Establish patient awareness	Awareness of diagnosis, including with respect to each of high blood pressure, diabetes, and high cholesterol

Increase patient motivation	Never or seldom having difficulties in following physician advice to change health behaviors with respect to each of physical activity, diet, waist circumference, and smoking habits
Attend counselling/classes	Patient participation in prescribed interventions and programs, including nutrition counselling, physical education classes, stress management classes, and smoking cessation programs
Improve/ensure medication adherence	Never or rarely have problems with intake of prescribed medication
Ensure drug and behavioural adherence	Physician's perception that the patient's total adherence is high

(b) *Modification of Douglas*

46. Douglas, like Klotsche, is concerned with a patient's adherence to a health program's goals. Specifically, Douglas's system "generate[s] compliance data indicative of the individual's progress toward achievement of the program [goals]" (Douglas at Abstract, claims 4, 8, 11, and 25), which include pharmacologic goals (Douglas at FIG. 6 ("Pharmaceuticals")) as well as non-pharmacologic goals (*id.* (remainder)). Similarly, Klotsche proposes an "adherence score" to assess a patient's adherence to "both[] pharmacologic and non-pharmacologic interventions in primary care." Klotsche at Abstract, 88. Indeed, both Douglas and Klotsche are concerned with a patient's meeting of goals related to increased physical activity, reduced weight, reduced smoking, reduced cholesterol levels, improved blood pressure, compliance with prescribed medications, patient attendance at

counselling/classes, and patient motivation. *Compare* Douglas at FIGs. 5, 6, 45 with Klotsche at 85-87.

47. It would have been logical and efficient to modify Douglas's system such that that system generated a compliance score like Klotsche's. The resulting system is referred to as the Douglas-Klotsche System.

(c) *Motivation to Combine*

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

49. Douglas does not, however, explicitly disclose how his compliance data is generated or what form it takes. Douglas at 11:26-28. Klotsche would have filled that gap by providing a compliance score based on the patient's meeting (or not) of a variety of goals like Douglas's (Sections VII.A.2(a)-VII.A.2(b)) and would have

advantageously enabled Douglas's system to carry out its compliance monitoring purpose as well as facilitated the compliance-based decisions with respect to the patient that Douglas contemplates.

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

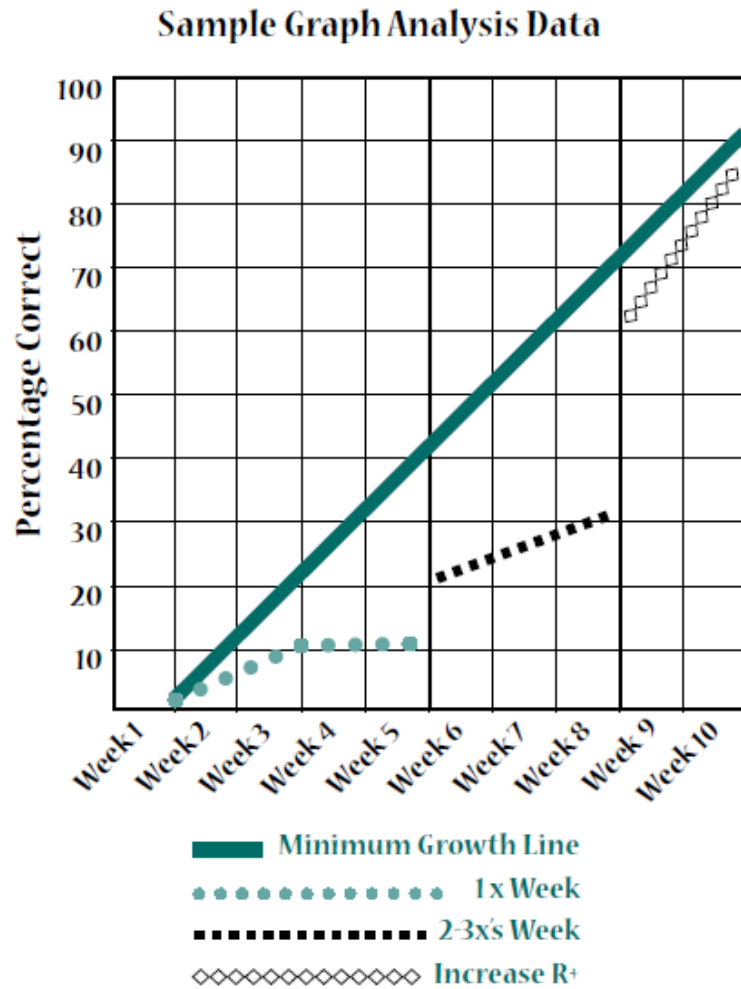
51. Third, as a POSITA would have recognized, a compliance score like Klotsche's would have advantageously collapsed a patient's compliance with Douglas's multi-faceted goals (Douglas at FIG. 6) into "one score" (Klotsche at Abstract), allowing the patient's physician and the patient to readily ascertain (e.g., at a glance) the patient's level of compliance with the program. Douglas at 11:6-10, 12:3-7. Indeed, Douglas itself recognizes the "clear benefits" of having "information readily available to the physician regarding the patient's compliance

with the program” (Douglas at 2:1-4), which would have been furthered using a score like Klotsche’s.

3. *Virginia*

(a) *Overview*

52. 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 (“MGL”)-based approach. *Id.* at 27. A teacher establishes a “baseline” performance of a student as well as a “goal [that] stipulates a mastery criterion ... [to be achieved] by the end of [a] teaching period.” *Id.* A line is then drawn on a graph “between the baseline ... and the goal criterion,” which “is called the *minimum growth line*.” *Id.* Virginia’s FIG. 4, reproduced below, shows a sample MGL:



Virginia FIG. 4

53. To evaluate progress, the teacher also plots the student's performance data over time, to "compare the student's performance against [the MGL]." 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.

54. While Virginia applies its progress-monitoring method to an autistic student's performance in learning skills and behavior to transition to adulthood (Virginia at 5, 27-28), Virginia is in the same field of endeavor of the '812 Patent, which is directed to tracking goal progression (*e.g.*, '812 Patent at 1:53-54, 4:12-14, 35-37), including of "individuals with ... autism" (*id.* at 1:18-22) and students generally (*id.* at 3:65-4:2) ("the subject may be a ... student"). It is also reasonably related to a problem faced by the inventors of the '812 Patent: how to assess an individual's progress towards goals. *Id.* at Abstract, 1:11-15, 26-34, 4:34-37.

(b) *Modification of the Douglas-Klotsche System*

55. It would have been beneficial to modify the Douglas-Klotsche System to evaluate compliance with the program by analyzing the patient's compliance score using an MGL-based approach as discussed in Virginia. Virginia at 27-28. In this modified system, the compliance score of the Douglas-Klotsche System is evaluated "at the beginning" of the program to establish a "baseline," a program goal sets a "mastery" value for the compliance score to be achieved "by the end" of the program, and an MGL is extended from the baseline compliance score to the goal compliance score. *Id.* at 27. As the patient progresses through the program, if the compliance score "is on or above the line," then the patient "is on track to master the goal," but if the compliance score is "below that line for three data points," then the program is evaluated and "revise[d]." *Id.* at 27-28. Further, as discussed in Virginia,

the MGL approach can be applied iteratively to successively adapt a program to attempt to guarantee compliance by a targeted deadline. *Id.* at 27-28. The modified Douglas-Klotsche System is referred to herein as the Douglas-Klotsche-Virginia System.

(c) *Motivation to Combine*

56. First, a POSITA would have been motivated to use an MGL-based approach like in Virginia to evaluate the compliance score in the Douglas-Klotsche System to provide an “evidence based” evaluation of the sufficiency of the progress to meet the goals in a specified period. Virginia at 27-28. That is, Douglas discusses program goals for completion in “certain period[s],” and in the Douglas-Klotsche System the compliance score is used to evaluate progress towards goals. Douglas at 7:5-7 (“within a certain period”), 8-10 (“3-month targets”), 8:10-11. However, neither Douglas nor Klotsche specifies in detail how to evaluate whether progress is sufficient to meet a goal by a specified time. But Virginia teaches that the MGL 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.

57. Second, a POSITA would have been motivated to use such a modified system to improve the chances of meeting goals of a behavioral modification program of the Douglas-Klotsche System by a specified deadline. Virginia at 27-

28. That is, Douglas discusses “determin[ing] whether to modify the patient’s therapeutic program” “if the patient is not progressing toward program goals,” but does not 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 MGL] for three data points,” and if so, iteratively revising the program to enable “mastering the skill at the targeted criterion,” where if an initial revision results only in “performance [being] improved, but not enough to master the skill within the time left,” then further revisions to a program are made to ensure compliance by the targeted date. Virginia at 27-28.

58. Third, the modification also would have been merely combining prior art elements according to known methods to yield predictable results. Both Douglas and Klotsche taught that it was known for an individual to attempt to change behavior as part of a behavioral modification program, and Douglas taught that a need would arise to evaluate progress towards meeting goals by a specified deadline. Douglas at 7:5-10, 8:10-12, 11:26-28; Klotsche at 82-83. And Virginia taught that the MGL-based approach could be used to evaluate the sufficiency of progress towards meeting a behavioral goal (e.g., a compliance score) by a specified time. Virginia at 27-28. A POSITA would have understood that an MGL analysis like that in Virginia could be applied to evaluate the timeliness of progress in the Douglas-Klotsche System, and that this approach would work in the Douglas-

Klotsche System in essentially the same way that it works in Virginia, with the results of this combination being predictable—an answer as to whether progress was sufficient to meet goals within the specified time period. Virginia at 27-28.

4. Claim 1

(a) *Limitation 1[p]: A method for tracking outcome specific data, the method comprising:*

59. Douglas discloses a method for tracking outcome specific data: “the system periodically correlates [] updated patient health information”—data—“with [] program goals”—outcomes—“to determine the patient’s progress and compliance with the program,” and specifically, whether those goals or outcomes are being met. Douglas at 11:18-12:2, Abstract, 8:1-8, 11:7-10, 20:14-19, 20:29-30, FIG. 7; ’812 Patent at 3:54-57.

(b) *Limitation 1[a]: receiving input establishing accounts for providers serving clients in a client management program, wherein the clients are individuals receiving treatment or assistance, wherein the input includes rules for determining progress of the clients, wherein the accounts are stored in a database of a server, and wherein the input is received from an administrator utilizing one of a plurality of communications devices in communication with the server by one or more networks;*

Accounts for Providers Serving Clients

60. Mapping 1: In Douglas’s method, the “the case administrator sets up a new patient based on information contained in the patient prescription form” (Douglas at 6:36-7:20), which involves the administrator “enter[ing] the patient into

the system” (*id.*) and entering patient information online (*id.* at FIG. 60), each of which constitute input by the administrator. This input includes the “information contained in the patient prescription form” upon which the case administrator’s set up of the new patient was “based,” as illustrated in Douglas FIG. 2 (reproduced below):

Fig 2

22 ~ **HeartLand Prescription Form**

23

Patient Name	Patient ID	Date	Physician Name	Physician ID

1. Fill in diagnosis:

Patient Diagnosis	Co-morbid Diagnosis

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

Physician's Signature: _____ Telephone: _____

FAX THIS FORM TO SALUS MEDIA: (805) 969-3601

You will receive Fax confirmation within 24 Hours. For Assistance please call: (805) 969-2234

Douglas FIG. 2

Id. at 7:10-20.

61. This administrator input is for establishing a patient-accessible account, as Douglas explains that “[o]nce the patient is set up on the system, it assists him or her in complying with his or her behavior modification program,” and “[t]o use the program, the patient logs into the system network” (Douglas at 8:28-31) using a “user id and password” (*id.* at 25:5-10, FIG. 36)—i.e., the patient logs into an account.

62. This patient-accessible account is also one for a physician serving the patient in that the physician makes use of the account to treat the patient. Indeed, “[t]he system provides specific feedback to the physician so that he or she can modify or update the [patient’s] program as the patient progresses” (Douglas at 3:13-14), “the patient’s record may be updated on an ongoing basis by taking data from the patient ... from subsequent office visits” (*id.* at 7:28-32), “[t]he physician ... can use the information provided in the [patient’s] journal to update the program on an on-going basis” (*id.* at 10:31-36), and “the system accepts updated patient data ... through data entered by the physician during office visits” (*id.* at 11:1-5).

63. Mapping 2: Douglas discloses that “[a] network administrator 524, who may be the case administrator[,] ... subscribes all users to the system except for clinical or wellness group participants.” Douglas at 25:17-19. Given that a physician is a user of Douglas’s system (*id.* at 19:27-30, 25:5-9) and is not a clinical or wellness group participant, which is instead a patient (*id.* at 6:6-14), the

network/case administrator, per Douglas, subscribes the physician to the system.

This act of subscription constitutes input.

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

65. Mappings 1 and 2: Douglas’s system includes multiple physicians (Douglas at FIG. 57), each serving multiple patients (*id.* at FIG. 57, 21:14-15), meaning the received administrator input is for establishing accounts for physicians serving patients. Douglas’s physicians are providers, and Douglas’s patients are clients. ’812 Patent at 4:15-22.

66. Douglas’s patients are each an individual receiving treatment or assistance from their physician, 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.

Client Management Program

67. The system for which the client-accessible (Mapping 1) or provider-specific (Mapping 2) accounts are created is Douglas’s “compliance monitoring and

feedback system,” which is a client management program. Douglas at 5:22-25, FIGs. 59 and 60.

That system manages a patient in that it:

- “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);
- “periodically correlates [] updated patient health information with the program goals to determine the patient’s progress” (*id.* at 11:26-28, FIG. 60); and
- “informs the physician” regarding the patient’s progress, who can then intervene with the patient (*id.* at 11:28-12:2, FIG. 60).

Rules

68. Douglas discloses that the case/network administrator’s input further includes rules for determining progress of the clients in the form of goals to be satisfied. Specifically, Douglas explains that a patient’s “goals ... are set for him or her by the ... case administrator.” Douglas at 9:35-37; *see also* Douglas at 7:17-20, 8:1-2 (same, but by the “case advisor”). Douglas uses the terms “case administrator” and “case advisor” interchangeably. *Id.* at 14:1-2 (“case administrator or advisor”), *id.* at 6:33-35, FIG. 60 (explaining that the physician sends the prescription form to “a case advisor” for entry with reference to FIG. 60, which shows a “CASE

ADMIN” receiving and entering that form). The case administrator’s setting of the patient’s goals, evidenced by their subsequent presence in Douglas’s system (e.g., *id.* at FIG. 5, 6), reflects the case administrator’s input of those goals into Douglas’s system.

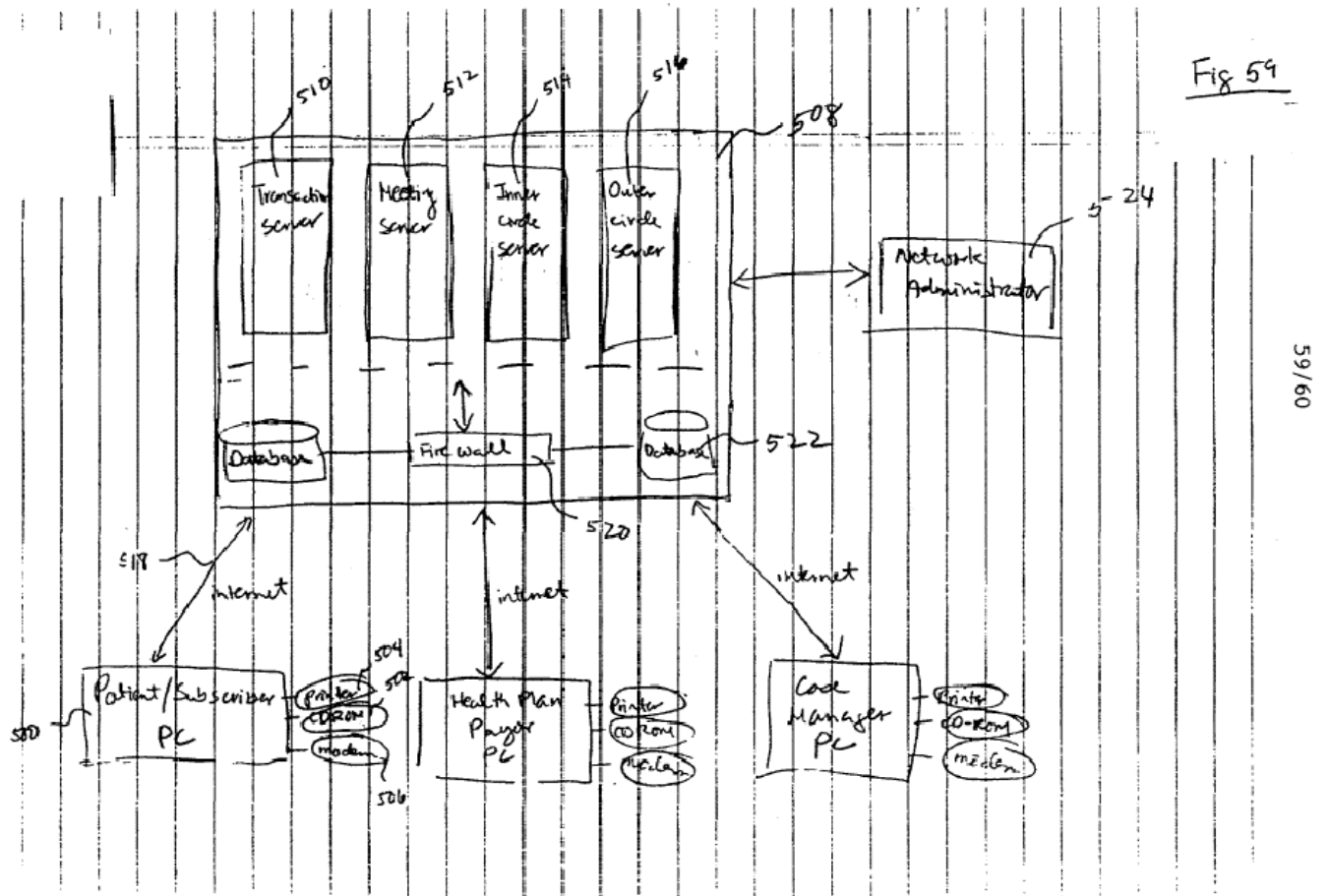
69. Douglas further discloses case-administrator-input of goals in that “[the] case advisor may confirm 63 or edit 64” more-detailed “one month goals 61 and final goals 62” for the patient. Douglas at 8:10-13, FIG. 6. Whether the case administrator confirms the goals or edits them, the case administrator’s action constitutes the input of such goals.

70. Douglas’s goals are rules for determining progress of the clients—it is against these goals that Douglas compares patient health data to assess the patient’s progress with Douglas’s program. Douglas at 11:11-12:2 (“the system periodically correlates the updated patient health information with the program goals to determine the patient’s progress”). See my Section VII.A.5 (Claim 3).

71. As a specific example, Douglas describes a patient with a goal of losing 10 pounds. Douglas at 11:18-25. But, based on the patient’s current data, that patient only “lost 5 pounds,” meaning the goal was not met and the physician or case advisor should intervene. *Id.* at 11:18-25. That goal—losing 10 pounds—is thus a rule for determining the patient’s progress.

Server

72. Douglas further discloses that the patient-accessible and physician accounts are stored in a database of a server—databases 522 of Douglas’s network server 508, shown in Douglas’s FIG. 59 (reproduced below):



Douglas FIG. 59

Douglas’s server 508 includes servers 510-516 (Douglas at 24:12-16), which “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). Those databases are also part of server 508. *Id.* at FIG. 59. Server 508 thus stores these accounts in databases 522, as such are “information needed by

a user of the system,” including the patients and the physicians, which are users of the system. *Id.* at 24:28-37.

73. In Douglas, the administrator uses a communications device (“PC”) in communication with the server via the Internet to set up the accounts and rules. Douglas at 24:3-13, FIGs. 59, 60.

(c) ***Limitation 1[b]: assigning each of the clients to one or more of the providers in response to selections from the administrator utilizing one of the plurality of communications devices, wherein the one or more providers are individuals available to treat or assist the client;***

74. Douglas also discloses that each of the patients are assigned to one or more of the physicians, who are individuals available to treat or assist their patients (Section VII.A.4(b) (Limitation 1[a])). Douglas at 21:24-28, FIG. 47 (showing the “Responsible Physician” for patient “Fred Smith”), 15:8-9 (patients “keep in constant contact with their physician.”), claims 11, 25, FIG. 2 (associating the patient, “Patient Name[/]ID,” with a physician, “Physician Name[/]ID”), FIG. 7. Indeed, the 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. *Id.* at 11:6-12:2.

75. Douglas further discloses that this assigning of clients to providers is in response to selections from the administrator utilizing a communications device, as

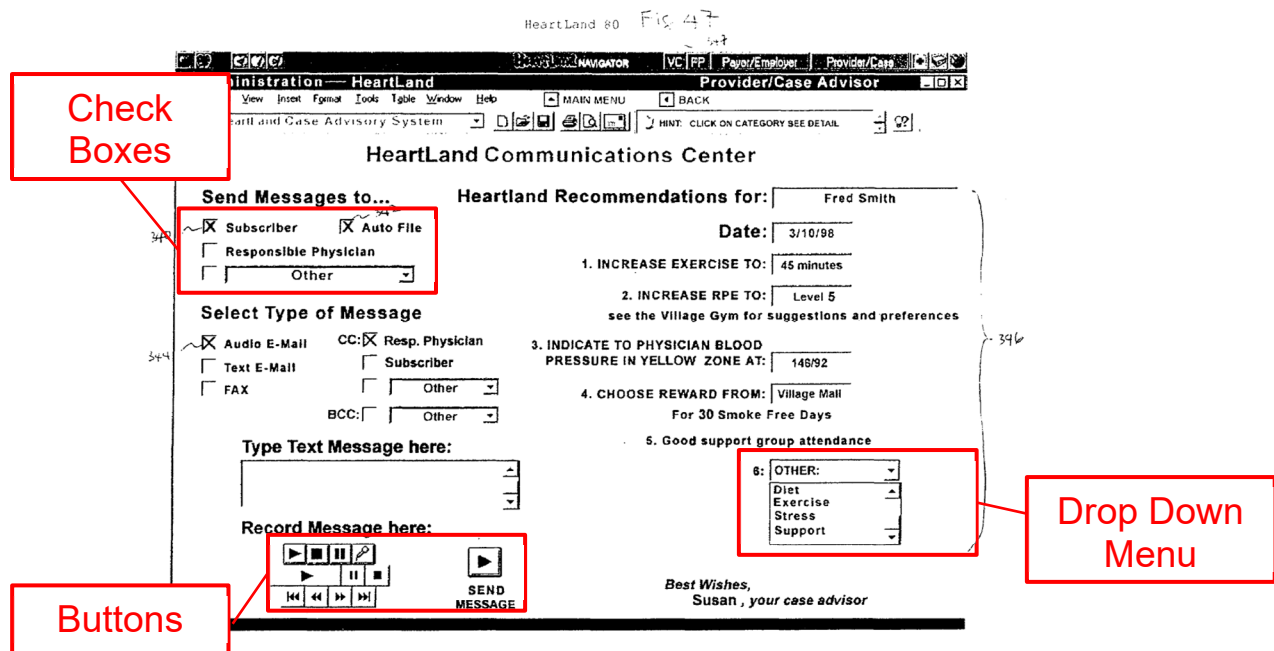
the case/network administrator sets up a patient on Douglas's system using a PC, where the entered information from the patient prescription form includes that associating the patient with a physician. Section VII.A.4(b) (Limitation 1[a]); Douglas at FIG. 2 ("Physician Name," "Physician ID," "Physician's Signature. Particularly in view of the required nature of patient-to-physician assignments, 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.

76. In my opinion, it also would have been logical and efficient for the case administrator to assign the patients to the physicians. As explained above, these assignments had to be created to achieve the functionality of Douglas's system, and the administrator was a logical and efficient option for creating them, 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.

77. 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 physicians to be assigned to the patient. To be clear, to assign the patient to their physician requires the selection of the patient and the selection of that physician.

78. Although the above already demonstrates selections from an administrator, it would have been logical and consistent for the administrator to use graphical user interface ("GUI") components to assign the patient to the physician, which would have also been selections.

79. 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 and 39.

80. It would have been logical to use Douglas's GUI components to assign a patient 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.

81. First, each of these options represents a combination of familiar elements according to known methods that does no more than yield predictable

results. Douglas discloses the use of selectable checkboxes and drop-down menus to choose items from lists. Douglas at FIG. 47 (checkboxes 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 evidences Douglas’s use of a selectable button to act upon those choices. *Id.* at FIG. 47 (“SEND” the chosen message).

82. In both options (1) and (2), the checkboxes 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 a patient-to-physician assignment. Thus, in options (1) and (2), the functions of the GUI components remain unchanged.

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

84. Second, any of these options would have accomplished the necessary patient-to-physician assignments in Douglas’s system 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.”). *Id.* at 3:24-5:20 (FIGs. 3-6 and 8-58 are “graphical representation[s]”). Indeed, as a

POSITA would have understood, option (1)'s check boxes, option (2)'s drop-down menu, and both options' buttons were basic building blocks of such a GUI.

85. Although the claim states “assigning each of the clients to one or more of the providers,” should the claim be found to require multiple physicians 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 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 (Douglas at FIG. 2 (Diagnostic Categories I-VII)), a psychiatrist for the patient's mental conditions (*id.* at FIGs. 4 and 6 (“Depression”)), and a general practitioner to address the patient's general needs, such as diet and exercise (*id.* at FIG. 6).

(d) *Limitation 1[c]: prompting the providers to provide data associated with each of the clients that is required and not already received through the client management program, wherein the one or more providers periodically provide/update the data, and wherein the data relates to the well-being of the clients;*

86. Douglas's system “prompt[s] the [patient] to enter health-[r]elated data” that is subsequently “correlat[ed] ... with the [goals] in the behavior modification program” to determine the patient's compliance therewith. Douglas at Abstract, 2:29-33, 10:12-14, claims 4 and 27.

87. While Douglas does not explicitly disclose such prompting is to the providers, doing so would have been logical and efficient. Douglas discloses two sources for the necessary health-related data—the patient and the physician. Douglas at FIG. 60. But with either source, the health-related data is required for Douglas’s system to “correlate[] the updated patient health information with the program goals to determine the patient’s progress.” *Id.* at 11:26-28. It therefore would have been logical and efficient to use such prompting for both sources, physicians as well as patients, to achieve a common goal: ensuring the health-related data was collected.

88. Douglas also discloses the one or more providers provide/update the data, as “the system accepts updated patient data ... through data entered by the physician during office visits (blocks 1030, 1032, and 1034, FIG. 60).” Douglas at 11:1-5, FIG. 60, claim 14, FIG. 41 (showing “Physician reported” blood pressure). And this provider-entered, updated patient data is periodically received. Douglas at FIG. 60, claims 11 and 14.

89. Further, Douglas discloses that the updated data relates to the well-being of the patients, given that “the system periodically correlates the updated patient health information with program goals to determine [a] patient’s progress and compliance with the program.” Douglas at 11, 6-12, 2, FIGs. 60, 5, 6.

- (e) ***Limitation 1[d]: compiling the data associated with each of the clients received from the providers without input from the clients for the client management program to generate a score utilizing the rules, wherein the score is associated with progress toward mastery of one or more goals;***

90. Douglas discloses compiling data associated with the patients received from the providers, as updated patient data is collected over time—i.e., compiled—to determine progress of a patient toward achieving the goals. Section VII.A.4(d) (Limitation 1[c]). This patient data compilation is evidenced by “[t]he system generating reports on patient progress based on the data shown in FIGs. 40-45,” which depict various aspects of patient data collected over time, charted against respective patient goals. Douglas at 20:3-37, FIGs. 40-45, 20:14-19.

91. Douglas does not, however, explicitly disclose generating a score utilizing these goals—i.e., rules (Section VII.A.4(b) (Limitation 1[a])). Nevertheless, as explained in Section VII.A.2, Klotsche discloses scoring a patient’s compliance with a health program based on the patient meeting (or not) goals like Douglas’s, and it would have been efficient to modify Douglas’s system to generate a score like Klotsche’s, based on Douglas’s goals, to facilitate Douglas’s disclosed compliance monitoring and compliance-based decisions with respect to the patient, as well to provide a straightforward metric for readily assessing the patient’s compliance with Douglas’s multi-faceted program. That score, being based on the

patient's achievement (or not) of goals, would have been associated with progress toward mastery of those goals.

- (f) *Limitation 1[e]: analyzing the compiled data and the score to automatically determine a status of the clients within the client management program, wherein the score is compared with previous compiled data to determine whether a plurality of measurements of the compiled data vary from a threshold to become significant; and*

92. The Douglas-Klotsche-Virginia System analyzes the compiled data and the score, as it “periodically correlates 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, and, as discussed in Section VII.A.2(b), uses a compliance score based on goals in target areas, like that discussed in Klotsche, in evaluating the progress. Klotsche at 84-87. This analysis is performed to automatically determine a status of clients within the client management program, as this is a necessary part of the Douglas-Klotsche-Virginia system’s “automatically provid[ing] the physician with reports of patient progress.” Douglas at 11:7-8, 26-28.

93. In performing the analysis of the compiled data and score, the Douglas-Klotsche-Virginia System compares the score with previous compiled data. As discussed in Sections VII.A.3(b)-3(c), the Douglas-Klotsche-Virginia System evaluates the patient’s progress toward program goals by analyzing the compliance

score using an MGL-based approach, both to provide an “evidence based” evaluation of the sufficiency of progress to meet goals in a specified period, and to improve the chances of actually meeting the goals in the period. Virginia at 27-28. To do so, the System compares the compliance score against an MGL extending from a “baseline” compliance score (e.g., effectively zero, at the beginning of a program) to a “goal” compliance score (e.g., a predetermined, relatively high score) to determine if the patient’s “performance [is] below that line for three data points.” Section VII.A.3(b); Virginia, 27-28. The Douglas-Klotsche-Virginia system thus compares the compliance score with previous compiled data in form of previously plotted compliance scores to determine whether the current compliance score is a third value below the MGL, Virginia at 27-28.

94. The ’812 Patent performs the claimed comparison in a similar manner. ’812 Patent at 6:37-48.. That is, the ’812 Patent also performs an MGL analysis, as the ’812 Patent discusses an “[MGL] that runs from [a] baseline data and score (rating on graph) to [a] mastery level,” and “against ... [this MGL] ongoing data ratings are compared to assess status and level of progress.” ’812 Patent at 6:20-23, 26-28. “If three consecutive data points are worse than the [MGL], the third data point may have a status identified as ‘significant.’” ’812 Patent at 6:48-50. The ’812 Patent thus also compares the plotted score with previous compiled data in the

form of previous plotted scores to determine whether the current score is a third value below the MGL. '812 Patent at 6:20-50.

95. And this comparison in the Douglas-Klotsche-Virginia System determines whether a plurality of measurements of the compiled data vary from a threshold to become significant, as in the Douglas-Klotsche-Virginia System, if “performance [is] below [the MGL]” for three plotted score values, a determination is made that the program should be “revised,” Virginia at 27-28, much like in the '812 Patent, “[i]f three consecutive data points are worse than the [MGL], the third data point may have a status identified as ‘significant,’” which triggers a “review process to ... identify changes” to the program. Section VII.A.3(b); '812 Patent at 6:48-56. That is, the determination of significance in the Douglas-Klotsche-Virginia System is a determination to review and revise the program, much the '812 Patent's significance determination is a determination to review and change the program. '812 Patent at 6:48-56; Virginia at 27-28.

96. Should it be urged that the “previous complied data” to which “the score is compared,” and/or that the “plurality of measurements of the compiled data” that are determined to “vary from a threshold to become significant,” must be data values instead of score values, the '812 Patent indicates that scores are the values plotted, and therefore the “previous complied data” to which the current “score is compared” to determine significance, and the “plurality of measurements of the

compiled data” that “vary from a threshold to become significant,” are previously plotted score value in the ’812 Patent. ’812 Patent at 6:20-50.

97. In addition, although the above demonstrates a plurality of measurements of the compiled data varying from a threshold to become significant, a determination in the Douglas-Klotsche-Virginia System that a compliance score varies from an MGL also necessarily indicates that a plurality of data values underlying the compliance score vary from thresholds. That is, as discussed in Sections VII.A.2(a)-VII.A.2(b), the compliance score is composed based on data from target areas having underlying goals and respective thresholds for meeting them. And, during the program, the compliance score varying from its MGL would have necessarily indicated that at least some of the underlying data had also varied from their respective thresholds.

(g) *Limitation 1[f]: automatically communicating an alert including the compiled data and the status from the server executing the client management program to the plurality of communications devices associated with the providers assigned to one of the clients that is utilized by the administrator or one or more of the providers to intervene with the client in response to the plurality of measurements of the compiled data varying from the threshold to become significant for one of the clients.*

98. The Douglas-Klotsche-Virginia System automatically communicates an alert to providers assigned to the client, as Douglas discloses that the System includes an “‘alarm’ option” in which “[t]he system compares actual data about the

patient with the goals and parameters residing in the system's database and automatically notifies the physician or case advisor ... if a health risk is present.” Douglas at 11:11-15, FIG. 60.

99. The System includes in the alarm the compiled data and the status. Douglas discloses that the identification of the health risk is based on “the difference between current data and goals,” and that the health risk can include both “threatening situation[s]” and lesser concerns that “goals are not being met.” And in at least in some cases the alarm “notif[ies] the physician or case advisor of this fact” of the difference between the current data and the goals, where the fact of the difference includes both compiled data and the status of non-compliance (e.g., “the current data states that the patient has lost 5 pounds instead of 10”). Douglas at 11:15-21, FIG. 60.

100. Further, the alert is utilized by the administrator or one or more providers to intervene with the client, as Douglas discloses that the alarm can be sent “to the physician or case advisor [to] require his or her immediate action,” or result in the physician or case advisor “contact[ing] the patient in order to support and to further motivate him or her to meet the desired goals.” Douglas at 11:15-17, 22-24, FIG. 60.

101. The System also communicates the alert in response to the plurality of measurements of the compiled data varying from the threshold to become

significant. As already discussed, Douglas discloses communicating the alert based on “the difference between current data and goals” representing a health risk. Douglas at 11:15-19. And, as discussed above in Section VII.A.4(f) for Limitation 1[e], to evaluate compliance with the program goals, the Douglas-Klotsche-Virginia System performs an MGL analysis comparing the compliance score with a MGL to determine whether a plurality of measurements of the compiled data vary from a threshold to become significant, which triggers an evaluation and potential revision of the program. A POSITA would have understood that an MGL analysis of the compliance score resulting in determination of significant deviation of a plurality of measurements from the MGL represented a health risk to the patient, which would have triggered the alert in the System, as this deviation from the MGL was sufficiently serious to cause the program to be revised and therefore by nature a health risk, even if only a lesser concern that “goals are not being met.” Sections VII.A.3(b)-VII.A.3(c); Virginia, 27-28; Douglas at 11:18-19, FIG. 60.

102. The Douglas-Klotsche-Virginia System communicates the alert from the server executing the client management program to the plurality of communications devices associated with the providers assigned to one of the clients. Douglas discloses that network server 508 includes one or more relational databases 522 that contains “all the information needed by a user of the system,” which would include the information contributing to the alarm and the alarm so composed.

Douglas at 24:35-37. Douglas further discloses that physicians and case advisors have access to and use a “PC 500 [that] is electronically linked to network server 508 via the Internet 518.” *Id.* at 24:12-13. Douglas also discusses that the alarm can sent “via e-mail.” *Id.* at 11:12-15.

5. ***Claim 3: The method according to claim 1, further comprising: establishing goals for the clients, wherein the data indicates a status of the one or more goals, wherein the data is associated with tasks performed by the client to master the one or more goals.***

103. Douglas discloses establishing goals for the client: “the system, case advisor or physician generates a set of goals 52” for the patient. Douglas 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,” as shown in FIG. 6 (reproduced below):

HeartLand 70 *Fig 6*

Administration — HeartLand
File Edit View Insert Format Tools Table Window Help
MAIN MENU BACK
HeartLand Health Assessment Review
HINT: CLICK ON CATEGORY SEE DETAIL

SCREEN 3 OF 3
Based on your input, here is HeartLand's recommended program for: Fred Smith
Use the buttons to confirm or edit this program.

PATIENT STATUS & GOALS: DETAILS		Now 2/10/98	1 month Goal	GOALS
Name / D.O.B.	Fred Smith 2-5-49			
Starting Date	2/1/98			
Heartland I.D.	23-642			
Height / Sex	6'9" Male			
Weight	193	182	175	170
BMI	28.28	28.28	26.64	25.00
Smoke	.5 Packs/Day	.5	0	0
Physical Activity	0 / 0 / 0 minutes / x-week / RPE	20 / 3 / 3	25 / 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 m/dl	225	210	190
Resting Pulse Rate	88 Beats Per Minute	88	85	79
Stress	8.5 Scale of 1 to 10 (10 being high stress)	7.0	6.0	3.5
Depression	Scale of 1 to 10 (10 being greatest)	10	6	0
Blood Pressure	140/100 systolic/diastolic	140/100	130/90	130/90
Seatbelt Use	30 percent of time	50	75	100
Back Pain	Incidents per month	3	2	0
Pharmaceuticals				
- aspirin	325 mg	325 mg/da	325 mg/da	325 mg/da
- hydrochlorothz	12.5 mg	12.5 mg/da	12.5 mg/da	0 mg/da
- Lovastatin	20 mg	20 mg/da	20 mg/da	0 mg/da

CONFIRM
EDIT
OPTIONS...

Douglas FIG. 6

Id. at 8:8-11, FIG. 6.

104. Douglas's data (Section VII.A.4(d) (Limitation 1[c])) also indicates a status of these goals, as such data is "periodically correlate[d] ... with the program goals to determine the patient's progress" toward meeting the goals. Douglas at 11:11-36. That data further is associated with tasks performed by the patient to master the one or more goals, such as exercising and wearing a seatbelt. *Id.* at FIG. 6.

105. Should it be argued that Douglas's goals cannot be goals and rules, the threshold values Douglas includes with its goals (e.g., lose 10 pounds (Douglas at 11:18-25)) are also rules for determining patient progress, where such progress is toward broader goals (e.g., losing weight) that a POSITA would have understood to be disclosed in Douglas. Douglas at FIG. 6.

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

106. Douglas's data contains intervention plans, including positive interventions, in which "[u]sers may earn points by good participation in the program." 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. Such 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, such intervention plans are part of the system and thus also constitute data. Further, such would be "information needed by a user of the system," all of which "is located in the databases 522" and therefore are data. *Id.* at 24:35-37.

107. Douglas's data further includes goals and objectives, in the form of Douglas's goals 51, 61, and 62. Section VII.A.5 (Claim 3). 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, the percentages of certain types of food consumed by the patient, and the patient's seatbelt use. Douglas at FIG. 4.

108. 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; see also Douglas at 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.

109. Should it be urged that all of the above data are not "compiled," they are, in at least that Douglas's system handles multiple patients, each with their own intervention plans, goals 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).

7. ***Claim 7: The method according to claim 1, wherein the compiled data and the alert are presented visually to each of the providers utilizing the plurality of communications devices for intervention.***

110. See my Section VII.A.4(g) (VII.A.4). Douglas's "alarm" option "automatically notifies the physician or case advisor via e-mail" and is therefore presented visually to the physician and case advisor using their PC. Douglas at 11:11-17.

8. ***Claim 9:***

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

111. Douglas also discloses tracking a time and occurrence of a number of client actions that are part of the data in response to input from the providers, as Douglas's data includes values for the "patient's smoking habit, physical activity, alcohol and eating habits ...[, and] seatbelt use." Douglas at 7:22-28. Specifically, the patient's smoking habit is tracked based on the number of packs of cigarettes the patient smokes per day, the patient's physical activity is tracked based on the duration, frequency, and intensity of the patient's exercise, the patient's eating habit is tracked based on the percentages of food consumed by the patient, and the patient's seatbelt use is tracked based on the percentage of time the patient wears

their seatbelt. Douglas at FIG. 4. Again, this data is input by the physician. Section VII.A.4(d) (Limitation 1[c]).

(b) *Limitation 9(b): indicating a status of the one or more goals for the clients in response to the data.*

112. Douglas discloses indicating a status of the goals for the clients in response to the data, 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 11:18-19, 11:6-12:2, FIG. 60.

9. *Claim 10: The method according to claim 1, further comprising reporting outcomes through the client management program in response to the status, wherein the plurality of measurements of the compiled data are compared against a minimum growth line representing the threshold to generate the score, and wherein the score includes a mastery level for the one or more goals associated with each of the clients.*

113. The Douglas-Klotsche-Virginia System reports outcomes through the client management program, as "[t]he system generates reports on patient progress based on the data," and does so in response to the status, as "[t]he frequency of reports ... may be triggered by the achievement of goals or the setting off of alarm signals." Douglas at 20:33-37.

114. The Douglas-Klotsche-Virginia System also compares the plurality of measurements of the compiled data against an MGL representing the threshold, as the System compares a compliance score against an MGL to determine if the

compliance score “is on or above the line” or “below that line,” as discussed in Section VII.A.3(b). Virginia at 27-28. And, as discussed for Limitation 1[e] in Section VII.A.4(f), should it be urged that the “plurality of measurements of the compiled data,” which are “compare[d] ... against [an MGL],” must be *data values* instead of *score values*, the ’812 Patent indicates that scores are what is plotted, and therefore the “plurality of measurements of the compiled data” which are “compare[d] ... against [an MGL]” may be score values. ’812 Patent at 6:20-50.

115. The comparison performed by the Douglas-Klotsche-Virginia System is also to generate the score. In the ’812 Patent, the only result of a comparison to the MGL is “to assess status and level of progress.” ’812 Patent at 6:26-28. That is, “[a]ssessing status is determined as data are graphed and compared with the [MGL],” where the assessed status can include “a status identified as ‘significant.’” ’812 Patent at 6:31-32, 48-50. Thus, the “score” generated by comparison of “the plurality of measurements of the compiled data ... against [an MGL]” must include the generation of status or level of progress. *Id.* at 6:26-28, 31-32, 48-50. And the Douglas-Klotsche-Virginia System generates such a status or level of progress as a result of the comparison of the compliance score to the MGL, as the comparison results in a determination of either that the patient “is on track to master the goal” or not on track and the program should be “revise[d].” Section VII.A.3(b); Virginia at 27-28.

116. The Douglas-Klotsche-Virginia System also discloses that the score includes a mastery level for the one or more goals associated with each of the clients, as the compliance score includes a goal compliance score to be achieved at the end of the program, as discussed in Section VII.A.3(b). Virginia at 27-28.

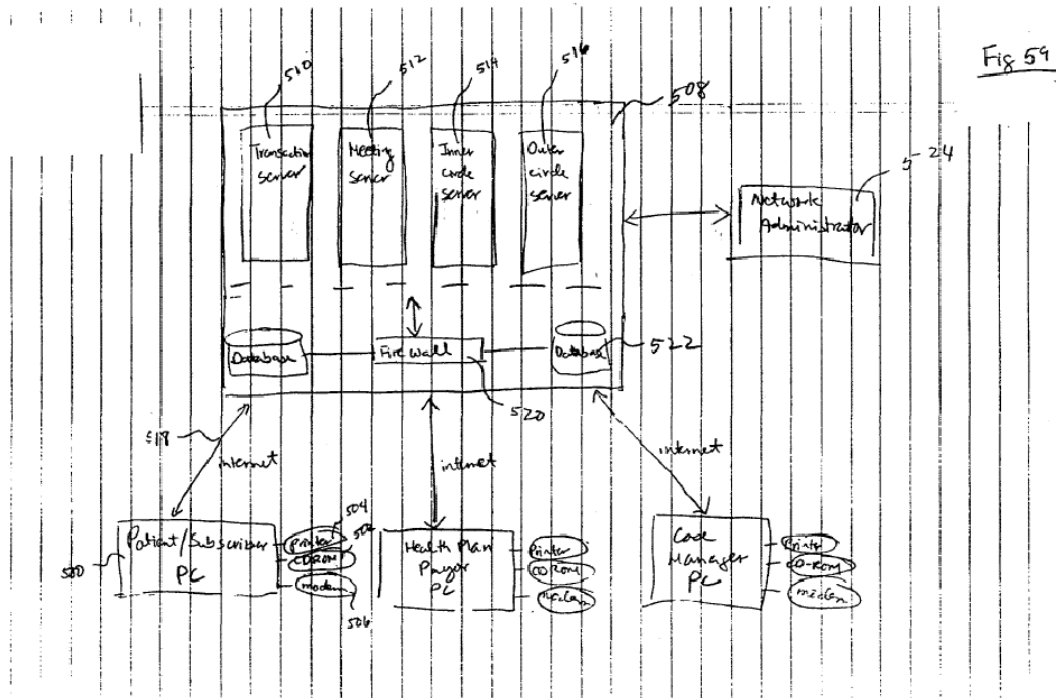
10. Claim 11

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

117. See my Section VII.A.4(a) (Limitation 1[p]).

(b) Limitation 11[a]: a server is a computing device that communicates with communications devices through a transceiver utilizing one or more networks, the server includes a processor that executes a client management program stored in a memory to receive input establishing accounts for providers serving the individuals and rules for determining progress of individuals,:

118. Douglas discloses that its system includes a server that is a computing device and communicates with communications devices utilizing one or more networks, as Douglas discusses “PC[s] 500 electronically linked to network server 508 via the Internet 518,” as shown in Douglas’s FIG. 59 (reproduced below):



Douglas FIG. 59

Douglas at 24:12-34. Such PCs include those for “patients, physicians, case advisors, and health plan payors.” *Id.* at 24:3-6. The PCs are communications devices, as Douglas discloses that they communicate with server 508. Douglas at 24:22-27, 24:27-34.

119. The communications between PCs 500 and network server 508 were also through a transceiver, which a POSITA would have understood to be “[a] device that can both transmit and receive signals.” Microsoft at 527. Indeed, Douglas discloses that PCs 500 transmit signals that are received by server 508, and the server transmits signals that are received by the PCs, indicating the presence of a transceiver at each of the PCs and the server for transmitting and receiving the

communications. Douglas at 24:27-34. Specific transceivers that Douglas discloses—any one or more of which meet the claimed transceiver—include “high-speed modem 506 connected to the PC 500” (*id.* at 24:22-24) and transceivers for establishing a “cellular connection [or] satellite link ... [with the] network server” (Douglas at 8:28-31).

120. As explained in Section VII.A.4(b) (Limitation 1[a]), Douglas’s compliance monitoring and feedback system is a client management program. Being software (Douglas at 25:22-26, 3:10-13, 2:25-27), that system was executed by a processor.

121. A POSITA would have understood that Douglas’s system as well as the processor that executed it resided on Douglas’s network server 508. First, as Douglas explains, 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. This Section and Section VII.A.10(c) (Limitations 11[a] and 11[b]) (setting up accounts, including patient-accessible accounts based on patient medical data and physician accounts with access to that medical data, and assigning patients to physicians), Sections VII.A.10(d)-VII.A.10(g) (Limitations 11[c]-11[f]) (collecting, compiling, and analyzing patient medical data). 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 server 508.

122. Second, as Douglas explains, patients and physicians 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 ... network server."), 19:27-30 ("log-on screen 220 ... for a physician/case advisor ... acts as a security measure by ensuring that only legitimate users are able to gain access to the system"), 25:5-11, FIG. 59.

123. Nevertheless, it also would have been logical and efficient for the processor implementing Douglas's system to reside in network server 508. To begin, network server 508 includes "one or more relational databases 522 ... that contain all the health plan data" and "all the information needed by a user of the system." Douglas at 24:28-25:4, 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 (Douglas at FIGs. 41-44 (charts of a patient's data that are provided to the patient and physician (*id.* at 20:14-19, 12:3-7))), a POSITA would have understood that such health data was stored in databases 522. Douglas at 24:32-33. And Douglas's system makes periodic use of that health data. *Id.* at 11:26-28, FIG. 60.

124. A POSITA would have understood that locating the processor implementing Douglas’s system in the server containing the health data upon which that system operated—databases 522 of network server 508—would have achieved Douglas’s goal of “protect[ing the] confidentiality of health plan data.” Douglas at 25:14-16; *see also* Douglas at 10:7-9, 19:29-30, 22:12-14, 24:18-19, 25:5-9. In this arrangement, the health data could remain behind firewall 520 that “protects confidentiality of health plan data” (Douglas at 25:14-16, Douglas at 59), 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.

125. Further, a POSITA would have understood that Douglas’s server included a memory for storing his system’s software. A POSITA would have known that a processor required a memory—at a minimum, RAM—to store software 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]). Section VII.C.1. This general knowledge, reflected by Chitiveli, is mappable to the claimed memory. And using such a memory to store Douglas’s system amounts to nothing more than the logical

and efficient use of the memory to perform its established, software-storing function.

Chitiveli at ¶¶ [0044]-[0046], FIG. 2.

127. Finally, as explained in Section VII.A.4(b) (Limitation 1[a]), Douglas's system receives administrator input establishing accounts for providers serving individuals and rules for determining progress of those individuals.

(c) ***Limitation 11[b]: assign each of the individuals to one or more of the providers in response to selections from an administrator,***

128. See my Sections VII.A.4(c) (Limitation 1[b]) and VII.A.10(b) (Limitation 11[a]).

(d) ***Limitation 11[c]: prompt the providers to provide data associated with each of the individuals that is required and not already received through the client management program,***

129. See my Section VII.A.4(d) (Limitation 1[c]) and VII.A.10(b) (Limitation 11[a]).

(e) ***Limitation 11[d]: compile data associated with each of the individuals received from the providers without input from the individuals to generate a score utilizing the rules,***

130. See my Section VII.A.4(e) (Limitation 1[d]) and VII.A.10(b) (Limitation 11[a]).

- (f) *Limitation 11[e]: analyze the compiled data and the score to automatically determine a status of the individuals, the score is compared with previous compiled data to determine whether a plurality of measurements of the compiled data vary from a threshold to become significant,*

131. See my Section VII.A.4(f) (Limitation 1[e]) and VII.A.10(b) (Limitation 11[a]).

- (g) *Limitation 11[f]: and automatically communicate an alert to the administrator or the one or more providers to intervene with the assigned individuals, the alert including the compiled data and the status from the server to the communications devices associated with the providers in response to the compiled data becoming significant, the clients are individuals receiving treatment or assistance, the one or more providers are individuals available to treat or assist the clients,*

132. See my Section VII.A.4(g) (Limitation 1[f]) and VII.A.10(b) (Limitation 11[a]). Douglas's patients are individuals receiving treatment or assistance from their physicians. See my Section VII.A.4(b) (Limitation 1[a]).

- (h) *Limitation 11[g]: the providers periodically provide/update the data, and the data relates to the well-being of the clients; and*

133. See my Section VII.A.4(d) (Limitation 1[c]).

- (i) *Limitation 11[h]: a database in communication with the server that manages the data, the database configured to store the accounts, assignments of the individuals to the one or more providers, and the compiled data.*

134. Douglas's server 508 includes databases 522 that "contain all the health plan data"—i.e., the compiled data—as well as "[a]ll the information needed by a

user of the system,” which include the patient-accessible and physician accounts (Section VII.A.4(b) (Limitation 1[a])). That necessary information also includes, for each patient user, their assigned physician, and for each physician user, their assigned patients (Section VII.A.4(c) (Limitation 1[b])). Douglas at 15:8-13 (“the system [] allows users to keep in constant contact with their physician”), 11:11-12:2 (the system notifies the physician regarding their patient’s progress and allows the physician to intervene with the patient).

11. Claim 16

(a) Limitation 16[p]: A server comprising

135. See my Section VII.A.10(b) (Limitation 11[a]).

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

136. See my Section VII.A.10(b) (Limitation 11[a]).

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

137. See my Section VII.A.10(b) (Limitation 11[a]).

- (d) *Limitation 16[c]: receive input establishing user accounts for providers serving clients, wherein the input includes rules for determining the progress of clients, wherein the clients are individuals receiving treatment or assistance;*

138. See my Section VII.A.10(b) (Limitation 11[a]). Douglas's patients are individuals receiving treatment or assistance from their physicians. Section VII.A.4(b) (Limitation 1[a]).

- (e) *Limitation 16[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 providers are individuals available to treat or assist the clients;*

139. See my Section VII.A.10(c) (Limitation 11[b]). Douglas's physicians provide—and thus are able to provide—treatment or assistance to their patients. Section VII.A.4(b) (Limitation 1[a]).

- (f) *Limitation 16[e]: prompt the providers to provide data associated with each of the clients that is required and not already received through the client management program, wherein the providers periodically provide/update the data, and wherein the data relates to the well-being of the clients;*

140. See my Sections VII.A.10(d) (Limitation 11[c]) and VII.A.10(h) (Limitation 11[g]).

- (g) *Limitation 16[f]: compile data associated with each of the clients received from the providers utilizing communications devices in communication with the server without input from the clients to generate a score utilizing the rules, wherein the score is associated with progress toward mastery of one or more goals;*

141. See my VII.A.10(e) (Limitation 11[d]). The provider-received data is received utilizing communications devices in communication with the server, as the patient data is entered by the provider using a “PC 500” that “is electronically linked to network server 508” using “a high-speed modem 506 connected to the PC 500.” Douglas at 24:3-26, FIG. 59. Indeed, the physician enters “PAT. HEALTH INFO ONLINE” (Douglas at FIG. 60), and Douglas explains that the entry of such patient health info is achieved “via [the physician’s] personal computer.” *Id.* at 6:31-33, FIG. 60; *see also* Douglas at 24:28-36, 11:3-5. Such data entry, being input by the physicians, is without input from the patients.

142. The compliance score in the Douglas-Klotsche-Virginia System is associated with progress toward mastery of one or more goals. Section VII.A.4(e) (Limitation 1[d]).

- (h) *Limitation 16[g]: analyze the compiled data and the score to automatically determine a status of the clients, wherein the score is compared with previous compiled data to determine whether a plurality of measurements of the compiled data vary from a threshold to become significant; and*

143. See my Section VII.A.10(f) (Limitation 11[e]).

- (i) *Limitation 16[h]: automatically communicate an alert from the server to the communications devices associated with the providers assigned to one of the clients in response to the plurality of measurements of the compiled data varying from the threshold to become significant for one of the clients, wherein the administrator or one of the providers intervenes with the one of the clients based on the alert; and*

144. See my Section VII.A.10(g) (Limitation 11[f]).

- (j) *Limitation 16[i]: communicate the compiled data to specified parties in response to a request from the providers or administrator.*

145. The Douglas-Klotsche-Virginia System also communicates the compiled data to specified parties, as “[i]nformation that is released by a patient may also be sent electronically to [a] health plan payor.” Douglas at 22:2-3. The information sent to the health plan payor includes the updated data related to the patient, i.e., the compiled data, either via an interface similar to “the user interface for physicians/case advisors, [with] indications of the patient’s blood pressure level 404, physical activity 406, weight 408, and cholesterol levels 410 [etc.] over time,” as shown in Douglas FIG. 53, or “represented graphically to the health plan payor in a form substantially similar to FIGS. 41, 42, 43, and 44,” which show “reports on patient progress based on the data.” *Id.* at 20:33-35, 23:2-6, FIGS. 41-44, 53. The health plan payor is a party, as it is a corporate entity or individual such as “an HMO, insurance company, or self-insured employer, [who] may also access the system.” *Id.* at 22:1-2. The health plan payor is also specified, as it has been specifically set

up in the system, as “[t]he network administrator subscribes all users to the system except for clinical or wellness group participants,” which would include the health plan payor, who is provided with a “user interface ... [that] is similar to the user interface used by a physician/case advisor.” *Id.* at 22:15-16, 25:18-19.

146. And the System communicates the compiled data to the specified parties in response to a request from the providers or administrator, as the information send to the health plan payor may take the form of the “reports on patient progress based on the data,” as discussed above, where such reports are generated “as frequently as the physician desires,” indicating that the physician provided a request to generate the reports at a certain frequency. Douglas at 20:33-35, 23:2-6.

147. It also would have been logical and routine for the Douglas-Klotsche-Virginia System to communicate the compiled data to the specified parties in response to a request from the providers or administrator, as it was a generally known for providers to communicate reports including data related to a patient to health plan payors as part of requesting reimbursement from the health plan payor for services rendered by the provider, and a provider would have been motivated to make such a request to receive payment. Douglas at 22:1-7 (health plan payors are concerned with “cost per patient” and receiving data based “upon the requirements of the health plan”).

- 12. Claim 17: The server according to claim 16, wherein the data includes at least intervention plans, goals and objectives, recorded activities, and general notes related to the well-being of the clients.**

148. See my Section VII.A.6 (Claim 6). Douglas’s system collects these items to help “a [patient] to achieve lifestyle changes necessary to maintain her or her health” (Douglas at Abstract), meaning each of these items is related to the well-being of the patients.

B. Ground 2 – Claims 1, 3, 6, 7, 9, 10, 11, 16, and 17 in View of Douglas, Klotsche, Virginia, and Wager

1. Overview

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

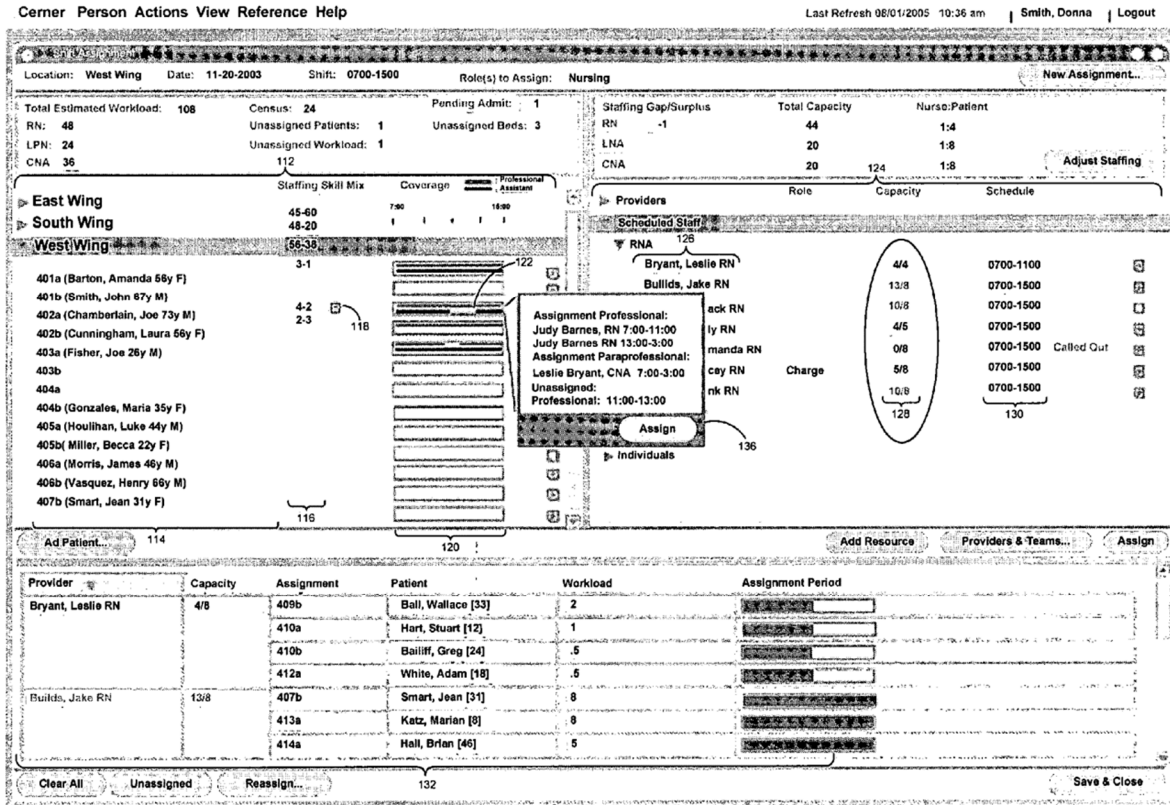


FIG. 2

Wager at ¶ [0011].

150. 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 broadly include “nurses, therapists, technicians, physicians,” etc. 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].

151. Using Wager’s workforce management interface 106, “the charge nurse or other 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 ... capacities, skill sets and other information or qualifications to service the patient population.” Wager at ¶¶ [0018]-[0021]. By comparing the patients’ time- and skill-needs to the care providers’ capacities and skill sets, proper assignments of the care providers to the patients are facilitated. *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 the Douglas-Klotsche-Virginia System*

152. 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 suffer from no particular ailment but are on the plan simply to promote wellness.” Douglas at 6:36-7:4; *see also id.* at 6:6-14. Consistently, Douglas’s physicians treating those patients have varied skill sets. Douglas at FIG. 57 (showing “Physician[s]” with “Specialty[s]” of “Cardio” and “Primary”).

153. 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 (Section VII.A.4(c) (Limitation 1[b])), it would have been logical and efficient 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. That system is hereinafter referred to as the Douglas-Klotsche-Virginia-Wager System.

3. *Motivation to Combine*

154. 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 (Section VII.B.2). 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 institution to ... make appropriate provider-to-patient assignments," by the "staff manager [being] presented with a suite of provider assignment options and alternatives, to automatically organize and drive assignment ratios and other assignment parameters and options with compliance, capacity, best practice and other criteria taken into account." Wager at ¶¶ [0006]-[0007].

155. The Douglas-Klotsche-Virginia-Wager System would have also helped ensure that the assigned physician had the capacity to effectively treat the patient. Evidenced by Douglas's FIG. 51, there are many patients on Douglas's system. Douglas at FIG. 51 ("12,984" patients on the program in the "Last 12 months"). And those patients were not evenly distributed amongst physicians. Douglas 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, 6, 7, 9, 10, 11, 16, and 17

156. The mappings to Claims 1, 3, 6, 7, 9, 10, 11, 16, and 17 for Ground 2 are the same as for Ground 1 (Section VII.A), excepting Limitations 1[b], 11[b], 16[d], additions to which are addressed below.

(a) *Limitation 1[b]: assigning each of the clients to one or more of the providers in response to selections from the administrator utilizing one of the plurality of communications devices, wherein the one or more providers are individuals available to treat or assist the clients;*

157. In the Douglas-Klotsche-Virginia-Wager System (Sections VII.B.2-VII.B.3), the case administrator would assign to the patient a physician having capacities and skill sets that matched the patient’s time- and skill-needs. Or multiple physicians, should such be required (see my Section VII.A.4(c) (Limitation 1[b]), at least to address a patient’s various needs. Wager at ¶¶ [0018], [0020]). Such assignments would also have been in response to selections from the administrator—i.e., each of the patient and of 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” (*id.* at ¶ [0021]), which further

discloses selections from the administrator to indicate the provider and the patient (*id.*).

(b) ***Limitation 11[b]: assign each of the individuals to one or more of the providers in response to selections from an administrator,***

158. See my Section VII.B.4(a) (Limitation 1[b]).

(c) ***Limitation 16[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 providers are individuals available to treat or assist the clients;***

159. See my Section VII.B.4(a) (Limitation 1[b]).

C. Grounds 3 and 4 – Claim 2, 14, and 20 in View of Douglas, Klotsche, Virginia, and Chitiveli (Ground 3), and Douglas, Klotsche, Virginia, Wager, and Chitiveli (Ground 4)

1. Overview

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

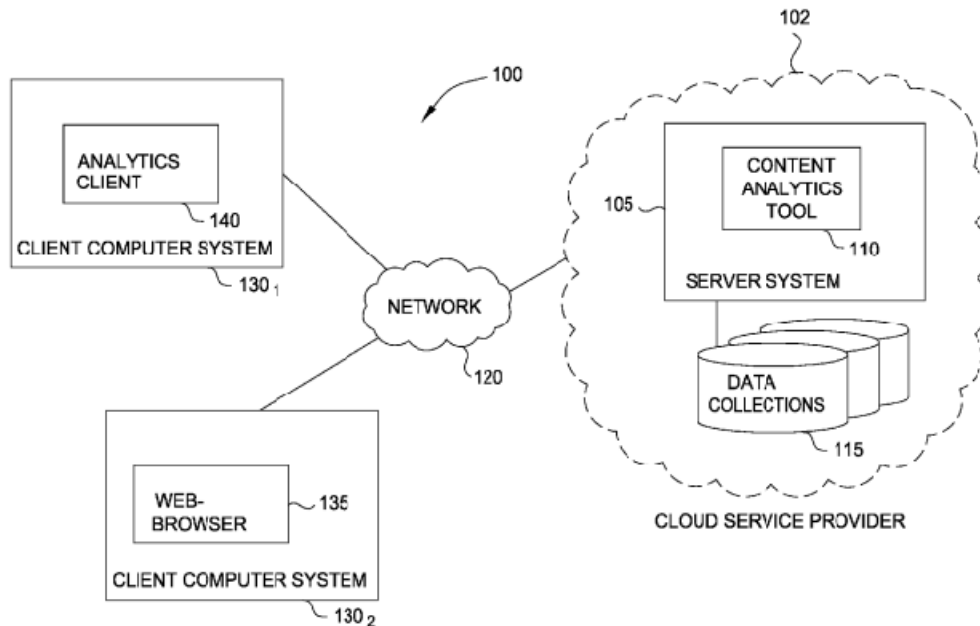


FIG. 1

Chitiveli at ¶ [0035] and FIG. 1. That computing infrastructure includes “a cloud based service provider 102 hosting a server system 105 and also includes computing client systems 130₁₋₂, all of which are connected to a communications network 120.” *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].

161. 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.” *Id.* at ¶ [0037].

162. 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.

163. Like Chitiveli’s content analytics tool 110, Douglas’s system:

- resides on a server (*id.* at FIG. 1 (“SERVER SYSTEM”); *see* Section VII.A.10(b) (Limitation 11[a]));
- receives data from provider devices such as a “desktop or laptop computer systems” (*id.* at ¶ [0036]; *see* Section VII.A.11(g)VII.A.4(e) (Limitation 16[f])); and
- analyzes that data to “generate periodic reports on the analyzed data to monitor progress on identified issues” (*id.* at ¶ [0037]; *see* Section VII.A.10(e) (Limitation 11[d])).

2. Claims 2 and 14

(a) *Modification of the Douglas-Klotsche-Virginia or Douglas-Klotsche-Virginia-Wager System*

164. It would have been beneficial to implement the Douglas-Klotsche-Virginia or the Douglas-Klotsche-Virginia-Wager 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]-[0037], FIG. 1.

(b) *Motivation to Combine*

165. 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 space for the network server or to maintain Douglas's system. Chitiveli at ¶ [0031]; NetSuite at 1 ("Upgrades, maintenance and system administration take place in the cloud and are managed by the vendor"). Second, it would have provided increased availability of Douglas's system. NetSuite at 1 ("Cloud software architectures ... frequently deliver better application-level availability."). Third, using a cloud service provider would have resulted in increased security (*id.* 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). 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.

- (c) ***Claim 2: The method according to claim 1, wherein the data and the score relate to a well-being of the clients based on progress toward mastery of the one or more goals, wherein the server is accessed through a cloud network, and wherein the client management program is executed by the plurality of communications device to receive user input from the providers.***

166. Ground 3: See my Section VII.A.4 (Claim 1).

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

168. Grounds 3 and 4: The Douglas-Klotsche-Virginia or Douglas-Klotsche-Virginia-Wager System's data, and its score based upon that data, relate to the well-being of the patients (see my Section VII.A.4(d) (Limitation 1[c])) based on progress toward mastery of the one or more goals (see my Section VII.A.4(e) (Limitation 1[d])).

169. See my Sections VII.C.2(a)-VII.C.2(b). Douglas's server 508 would have been implemented on, and thus accessed through, a cloud network, as in Chitively.

170. Further, Douglas's client management program (see my Section VII.A.4(b) (Limitation 1[a])) is accessed by the provider's communications devices to enter updated patient data (see my Section VII.A.11(g) (Limitation 16[f])) and that program is thereby executed by those communications devices to receive user input from the providers.

- (d) ***Claim 14: The system according to claim 11, wherein the one or more networks are a cloud network, wherein the cloud network reports outcomes, and wherein the plurality of measurements of the compiled data are compared against a minimum growth line representing the threshold by the client management program to generate the score, and wherein the score includes a mastery level for one or more goals associated with each of the individuals.***

171. Ground 3: See my Section VII.A.10 (Claim 11).

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

173. Grounds 3 and 4: As explained in Section VII.C.2(c) (Claim 2), Douglas's server 508 would have been implemented on a cloud network, and thus one or more networks utilized to communicate with the server (Limitation 11[a]) would have been a cloud network.

174. As explained in Section VII.A.9 (Claim 10), in the Douglas-Klotsche-Virginia or Douglas-Klotsche-Virginia-Wager System, Douglas's compliance monitoring and feedback system—and thus the cloud network utilized to communicate with it—would have reported outcomes, and Douglas's system would have compared compiled data against an MGL as claimed.

3. Claim 20

- (a) ***Modification of the Douglas-Klotsche-Virginia or Douglas-Klotsche-Virginia-Wager System***

175. It would have been logical and efficient to modify the Douglas-Klotsche-Virginia or Douglas-Klotsche-Virginia-Wager system 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*

176. 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.” Prgomet at 792. Mobile devices, via their mobility, meet this requirement by providing “for information access anywhere, anytime.” Prgomet at 792. 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” (Prgomet at 792) to enter the patient’s updated health information. Douglas at 11:1-5.

177. 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. InfoGrasp at 1.

178. 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 a natural option.

- (c) ***Claim 20: The according to claim 16, wherein the server is accessible by the plurality of communication s devices including at least a plurality of mobile devices, a plurality of computing devices, and a web interface, and wherein the plurality of measurements of the compiled data are compared against a minimum growth line representing the threshold, and wherein the score includes a mastery level for one or more goals associated with each of the clients.***

179. Ground 3: See my Section VII.A.11 (Claim 16).

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

181. 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 Sections VII.C.3(a)-VII.C.3(b), it would have been logical and efficient to modify the Douglas-Klotsche-Virginia (Ground 3) or Douglas-Klotsche-Virginia-Wager (Ground 4) System such that server 508 was also accessible by a plurality of mobile devices and a web interface.

182. As explained in Section VII.A.9 (Claim 10), either System would have compared compiled data against an MGL as claimed.

D. Grounds 5 and 6 – Claims 4, 5, 12, 13, and 18 in View of Douglas, Klotsche, Virginia, and Koh (Ground 5), and Douglas, Klotsche, Virginia, Wager, and Koh (Ground 6)

1. Overview

183. Koh “explores data mining applications in healthcare,” including “in major areas such as the evaluation of treatment effectiveness.” Koh at 64; *see also* Koh at 66. 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 for humans to detect.” *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.* at 65. For this reason, and because data mining can “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. at 65.

184. 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 the Douglas-Klotsche-Virginia or Douglas-Klotsche-Virginia-Wager System*

185. Douglas’s compliance monitoring and feedback 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 ... to established medical protocols for that type of patient.” *Id.* at 8:1-13. Such 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.

186. Douglas does not explicitly disclose—apart from “established medial 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 such as coronary artery disease, diabetes, chronic pain,

depression, addiction, arthritis, cancer and asthma,” those “who are recovering from medical procedures,” and those “who simply want to maintain their health.” *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; *see* Section VII.A.4(b) (Limitation 1[a])) and compiled data (*see* Section VII.A.4(e) (Limitation 1[d])). Douglas at FIG. 50.

187. 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 an operation, or passed away (*id.* at FIG. 55).

188. It would have been logical and efficient to modify the Douglas-Virginia-Klotsche or Douglas-Virginia-Klotsche-Wager System with Koh 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). The resulting systems are referred to as the Douglas-Klotsche-Virginia-Koh or Douglas-Klotsche-Virginia-Wager-Koh System. In these Systems, data mining would be used to identify:

- (1) a therapeutic plan for a patient based on 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 the plan to avoid such negative outcomes.

3. *Motivation to Combine*

189. Modifying Douglas’s compliance monitoring and feedback 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 (Section VII.D.2), “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 (Section VII.D.2), and “design appropriate interventions” like modifications to Douglas’s therapeutic plan to “reduce the number of hospital admissions and claims,” which is a negative outcome that Douglas specifically seeks to avoid (Douglas at FIG. 55). Koh at 66.

4. *Claim 4: The method according to claim 3, further comprising: data mining the compiled data utilizing the client management program to automatically determine best practices for each of the clients.*

190. Ground 7: See my Section VII.A.5 (Claim 3).

191. Ground 8: See my Section VII.B.4 (Claim 3).

192. Grounds 7 and 8: See my Sections VII.D.2-VII.D.3. The Douglas-Klotsche-Virginia-Koh and Douglas-Klotsche-Virginia-Wager-Koh Systems would have data mined the compiled data using Douglas’s compliance monitoring and feedback system—the client management program (Section VII.A.4(b) (Limitation 1[a])). Doing so would have automatically (Koh at 65 (data mining is not performed by humans, as it “sniff[s] out patterns that are too subtle or complex for humans to detect”)) determined best practices for each of the patients, in the form of a therapeutic program or a modification thereto.

5. ***Claim 5: The method according to claim 4, further comprising: automatically recommending the best practices to the providers or administrator through the client management program for assisting one or more of the clients in response to the best practices being relevant to the one or more of the clients assigned to the providers.***

193. Ground 7: See my Section VII.D.4 (Claim 4).

194. Ground 8: See my Section VII.D.4 (Claim 4).

195. Grounds 7 and 8: Douglas’s system automatically 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. In the Douglas-Klotsche-Virginia-Koh and Douglas-Klotsche-Virginia-Wager-Koh Systems, that therapeutic program and modifications to the same reflected best practices as determined through data mining (*see* Section VII.D.4 (Claim 4)), and these best practices for assisting the patients would have been identified for, and thus based on their relevance to, individual patients (*see* Sections VII.D.2VII.D.3).

6. ***Claim 12: The system according to claim 11, wherein the database is a relational database management system performing data mining required by the client management program to analyze the compiled data from the plurality of providers to associate best practices with each of the individuals***

196. Ground 7: See my Section VII.A.10 (Claim 11).

197. Ground 8: See my Section VII.B.4 (Claim 11).

198. Grounds 7 and 8: Douglas’s database is a relational database management system. Douglas at 24:28-30, 22:6-7 (Douglas’s disclosed “SQL” (Douglas at 24:28-30) is a language used by a database management system). That relational database management system, in the Douglas-Klotsche-Virginia-Koh and Douglas-Klotsche-Virginia-Wager-Koh System, would—in conjunction with Douglas’s compliance monitoring and feedback system—perform data mining on the compiled data so that Douglas’s system could analyze the compiled data to associate best practices with the patients, in the form of therapeutic programs and modifications thereto. Sections VII.D.2-VII.D.3.

199. Again, Douglas’s compiled data is from the providers. Section VII.A.4(e) (Limitation 1[d]).

7. ***Claim 13: The server according to claim 12, wherein the client management program is configured to automatically recommend one or more best practices to the plurality of providers or the administrator in response to the data of the individuals being associated with the best practices.***

200. Ground 7: See my Section VII.D.6 (Claim 12).

201. Ground 8: See my Section VII.D.6 (Claim 12).

202. Grounds 7 and 8: See my Section VII.D.5 (Claim 5). In the Douglas-Klotsche-Virginia-Koh and the Douglas-Klotsche-Virginia-Wager-Koh Systems, the recommended therapeutic programs and modifications thereto, or best practices,

would have been identified for patients responsive to their data fitting such best practices. Sections VII.D.2-VII.D.3.

8. ***Claim 18: The server according to claim 16, wherein the set of instructions for client management are further executed to: automatically recommend best practices to the providers and the administrator in response to historic success with the clients.***

203. Ground 7: See my Section VII.A.11 (Claim 16).

204. Ground 8: See my Section VII.B.4 (Claim 16).

205. Grounds 7 and 8: See my Section VII.D.5 (Claim 5). Douglas's system recommends therapeutic programs and modifications to the same, or best practices, to the case administrator as well as the physicians. Douglas at 8:1-13, 21:19-20 (the case advisor is the case administrator (as explained above)). Further, in the Douglas-Klotsche-Virginia-Koh and Douglas-Klotsche-Virginia-Wager-Koh Systems, best practices would have been identified for patients in response to those best practices having achieved positive outcomes (historic success) for similarly situated patients. See Sections VII.D.2-VII.D.3.

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>February 28, 2024</i>	<u>Respectfully submitted,</u> <i>Bryan P Bergeron, MD</i> BRYAN BERGERON, MD
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