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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ELLEN RUTH JULIAN, JOHN EDWARD GOCKE,
ELIZABETH WARD LANGSTON, PATRICIA LUCAS GRIER, and
DALE RONALD CYR

Appeal 2019-002852
Application 14/490,442
Technology Center 3600

Before BRUCE T. WIEDER, TARA L. HUTCHINGS, and
ROBERT J. SILVERMAN, *Administrative Patent Judges*.

SILVERMAN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision rejecting claims 7 and 9–20. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. The Appellant identifies the real party in interest as Inteleos, Inc., an entity previously named American Registry for Diagnostic Medical Sonography, Inc. Appeal Br. 4.

ILLUSTRATIVE CLAIM

7. A system for assessing competency of a health-care professional, comprising:

a virtual console configured to present an assessment scenario to the health-care professional, the virtual console including:

an image section having a plurality of digital images based on a simulated patient,

an enlarged digital image, wherein the enlarged digital image is one of the plurality of digital images selected by the health-care professional, and

a response prompt portion configured to dynamically display one or more questions related to the enlarged digital image, wherein the one or more questions are directed to critical points for performing a medical diagnosis of the simulated patient; and

an assessment tool associated with the virtual console, wherein the assessment tool is configured to perform an assessment of the health-care professional's medical diagnosis of the simulated patient using responses to the one or more questions,

wherein the virtual console further includes a case summary portion, and wherein a difficulty of the assessment scenario is adjusted by altering information provided in the case summary portion.

REFERENCES

Name	Reference	Date
Thorne et al. ("Thorne" herein)	US 2009/0204426 A1	Aug. 13, 2009
Cyr et al. ("Cyr" herein)	US 8,449,301 B2	May 28, 2013
Jakobovits	US 8,520,978 B2	Aug. 27, 2013
James B. McGee, Virtual Patient Platforms, Patient Safety & Quality Healthcare, June 11, 2009, http://www.psqh.com/virtual-patient-platforms ("McGee" herein)		

REJECTIONS

I. Claims 7 and 9–20 are rejected under 35 U.S.C. § 101 as ineligible subject matter.

II. Claims 7 and 9–20 are rejected under 35 U.S.C. § 103 as unpatentable over Cyr, Jakobovits, Thorne, and McGee.

FINDINGS OF FACT

The findings of fact relied upon, which are supported by a preponderance of the evidence, appear in the following Analysis.

ANALYSIS

Subject-Matter Eligibility

Under 35 U.S.C. § 101, an invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. Yet, subject matter belonging to any of the statutory categories may, nevertheless, be ineligible for patenting. The Supreme Court has interpreted § 101 to exclude laws of nature, natural phenomena, and abstract ideas, because they are regarded as the basic tools of scientific and technological work, such that including them within the domain of patent protection would risk inhibiting future innovation premised upon them. *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013).

Of course, “[a]t some level, ‘all inventions . . . embody, use, reflect, rest upon, or apply’” these basic tools of scientific and technological work. *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 217 (2014). Accordingly, evaluating ineligible subject matter, under these judicial exclusions, involves a two-step framework for “distinguish[ing] between patents that claim the buildin[g] block[s] of human ingenuity and those that integrate the building

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blocks into something more, thereby transform[ing] them into a patent-eligible invention.” *Id.* (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 88–89 (2012) (internal quotation marks omitted)). The first step determines whether the claim is directed to judicially excluded subject matter (such as a so-called “abstract idea”); the second step determines whether there are any “additional elements” recited in the claim that (either individually or as an “ordered combination”) amount to “significantly more” than the identified judicially excepted subject matter itself. *Id.* at 217–18.

In 2019, the USPTO published revised guidance on the application of § 101, in accordance with judicial precedent. *See* 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50, 52 (Jan. 7, 2019) (“2019 Revised Guidance”). Under the 2019 Revised Guidance, a claim is “directed to” an abstract idea, only if the claim recites any of (1) mathematical concepts, (2) certain methods of organizing human activity, and (3) mental processes—without integrating such abstract idea into a “practical application,” i.e., without “apply[ing], rely[ing] on, or us[ing] the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception.” *Id.* at 52–55. The considerations articulated in MPEP § 2106.05(a)–(c) and (e)–(h) bear upon whether a claim element (or combination of elements) integrates an abstract idea into a practical application. *Id.* at 55. A claim that is “directed to” an abstract idea constitutes ineligible subject matter, unless the claim recites an additional element (or combination of elements) amounting to significantly more than the abstract idea. *Id.* at 56.

Although created “[i]n accordance with judicial precedent” (*id.* at 52), the 2019 Revised Guidance enumerates the analytical steps differently than the Supreme Court’s *Alice* opinion. Step 1 of the 2019 Revised Guidance addresses whether the claimed subject matter falls within any of the statutory categories of § 101. *Id.* at 53–54. Step 2A, Prong One, concerns whether the claim at issue recites ineligible subject matter and, if an abstract idea is recited; Step 2A, Prong Two, addresses whether the recited abstract idea is integrated into a practical application. *Id.* at 54–55. Unless such integration exists, the analysis proceeds to Step 2B, in order to determine whether any additional element (or combination of elements) amounts to significantly more than the identified abstract idea. *Id.* at 56.

As to Step 1 of the 2019 Revised Guidance, the Examiner does not determine that the subject matter of any claim might be outside a statutory category stated in § 101.

Rather, with regard to the inquiries corresponding to Step 2A, Prong One, the Examiner refers to the following paraphrased description of the language of independent claim 7:

[S]ystems and methods for assessing competency of a health-care professional by presenting a health-care professional with an assessment scenario including a plurality of digital images based on a simulated patient; displaying one or more questions related to the images; performing an assessment of the health-care professional’s medical diagnosis of the simulated patient using responses [to] the one or more questions; and wherein a difficulty of the assessment scenario is adjusted by altering information in a case summary portion.

Final 2–3.

The Examiner likens the referenced limitations of claim 7 to claims that the Federal Circuit addressed in *Electric Power Group, LLC v. Alstom*,

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S.A., 830 F.3d 1350, 1353–54. (Fed. Cir. 2016), which recited the broad concept of collecting information, analyzing it, and displaying certain results of the collection and analysis. Final 3. The Examiner also states that “the claimed invention could be performed using pen and paper and/or in the human mind.” *Id.* at 21. *See also* Answer 8. Viewed through the prism of the 2019 Revised Guidance, the Examiner would regard the identified claim language as reciting a “mental process” type of abstract idea.

Disputing the Examiner’s determination, the Appellant argues that “the claimed subject matter [of claim 7] cannot be performed mentally and is not analogous to human mental work.” Appeal Br. 20. Indeed, the Examiner does not adequately explain — and we do not understand — how the referenced claim 7 limitations of at least “present[ing] an assessment scenario” including “a plurality of digital images based on a simulated patient,” “dynamically display[ing] one or more questions related to [an] enlarged digital image,” and “wherein a difficulty of the assessment scenario is adjusted by altering information provided in the case summary portion” may be characterized as mental processes — i.e., that they could be practically “performed in the human mind, or by a human using a pen and paper.” *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372 (Fed. Cir. 2011). *See also* 2019 Revised Guidance, 84 Fed. Reg. at 52. Accordingly, we are persuaded that the Examiner erroneously characterizes the identified limitations of claim 7 as reciting a mental-process type of abstract idea.

In addition, the Appellant points out that “the [Final] Office Action did not address an abstract idea at all with respect to independent claims 9 and 17, which contain different features from” independent claim 7. Appeal Br. 13. For example, independent claim 9 recites:

display a corrective instruction to the health-care professional after receiving a response to a critical question, wherein the corrective instruction provides progressive feedback and indicates a correct course of action, and wherein a subsequent decision point, a subsequent digital image, and a subsequent question follow a linear progression from the corrective instruction to provide a common set of data points to assess the health-care professional.

Similar limitations appear in independent claim 17. Yet, independent claim 7 does not recite corresponding features. Accordingly, the Appellant persuades us that the Examiner did not adequately demonstrate why independent claims 9 and 17 might be regarded as reciting a judicial exception.

In view of the foregoing, we are persuaded of error in the Examiner's analyses corresponding to Step 2A, Prong One, of the 2019 Revised Guidance, as to independent claims 7, 9, and 17. Accordingly, without addressing Step 2A, Prong Two, or Step 2B of the 2019 Revised Guidance, we will not sustain the rejection of independent claims 7, 9, and 17, and associated dependent claims 10–16 and 18–20, under 35 U.S.C. § 101.

Obviousness

Independent Claim 7

The Appellant argues that claim 7 stands rejected erroneously, because the cited prior art references do not teach or suggest the claimed “virtual console” having a “case summary portion” and “wherein a difficulty of the assessment scenario is adjusted by altering information provided in the case summary portion.” Appeal Br. 33.

First, according to the Appellant, Jakobovits does not teach the claimed “case summary,” because the reference only shows “all case text,” which “is not the same as showing a case summary.” *Id.*

The Examiner finds that Jakobovits satisfies the “case summary” limitation, in the disclosure of, e.g., Figure 6, which shows a screen interface tab entitled “FINDINGS” and providing descriptions of medical images. *See Answer 12.*²

The Appellant construes the claimed “case summary” as a subset of some larger set of materials. However, the assessment system of claim 7 recites a “simulated patient” — not an actual patient — so there is no set of medical information from which the claimed “case summary” can be drawn. Indeed, the Specification characterizes the information associated with the assessment exercise as a “simulated case file.” Spec. ¶ 18. Rather than actually being a “summary” of some larger set of information, the relevant features of the claimed “case summary” relate to its role in the claimed “assessment scenario.” As described in the Specification, for example:

Case summary 320 can be a concise description of the patient, providing both relevant and irrelevant information. Case summary 320 can be a vignette or a narrative, which describes a current status of the patient. As a health-care professional progresses through a simulation, case summary 320 can include additional information relevant to the status of the patient. In embodiments, case summary 320 can be used to adjust the difficulty of the assessment through the inclusion or omission of relevant and irrelevant patient information.

Spec. ¶ 35. *See also id.* ¶ 20 (“Case summary 120 can be a concise description of the patient, providing both relevant and irrelevant information.”)

² The Examiner mistakenly refers to the tab as a “CASE” tab, but no tab is so identified in Figure 6 of Jakobovits. However, Jakobovits (col. 4, l. 20) describes Figure 6 as illustrating a “medical case viewer.”

The “FINDINGS” tab shown in Figure 6 of Jakobovits provides a description of associated medical images. The Appellant has not provided any reason why the provided content would not be adequate to perform the role of the claimed “case summary” in claim 1. Furthermore, even under the Appellant’s construction, Jakobovits’ “FINDINGS” tab would meet the “case summary” limitation, because it is presented as a subset of a larger set of information, represented by tabs named, e.g., “HISTORY” and “DIAGNOSIS.”

Accordingly, we are not persuaded of error in the rejection of independent claim 7, based upon the Appellant’s argument that the cited prior art references do not teach or suggest the claimed “virtual console” having a “case summary portion” and “wherein a difficulty of the assessment scenario is adjusted by altering information provided in the case summary portion.”

The Appellant also argues that claim 7 stands rejected erroneously, because the cited prior art does not teach or suggest the recitation of “a difficulty of the assessment scenario is adjusted by altering information provided in the case summary portion.” Appeal Br. 33.

The Examiner relies upon McGee³ for this limitation. Final 7. *See also* Answer 12. The relevant portion of McGee states:

Based on the responses received, future questions are generated specific to the demonstrated skill level of the user, becoming more complex if the appropriate course of treatment is selected or more remedial if mistakes are made.

McGee 2. According to the Examiner:

³ We note that the Examiner cites pages 2 and 6–9 of McGee. Final 7. Yet, the identified McGee reference contains only five pages.

[I]t is submitted that it is inherent that the difficulty of an assessment scenario is adjusted by altering information in the case summary. For example, an assessment scenario can be made more difficult by leaving out information or adding information to make a scenario more complicated (i.e., altering information).

Final 23.

The Appellant does not address the Examiner’s argument squarely. Instead, the Appellant argues that Jakobovits “says nothing about altering the text” (even though the Examiner does not rely on Jakobovits for the limitation at issue) and briefly states that the other references (including McGee) do not “cure the[] deficiencies of Jakobovits.” Appeal Br. 33.

The Appellant’s argument is not sufficient to identify error in the rejection of claim 7. In view of McGee’s teaching of increasing the difficulty of assessment questions and — in view of the small and finite number of elements associated with a question — the claimed “altering information provided in the case summary portion” (the “case summary” taught by Jakobovits, as addressed above), would have been obvious to a person of skill in the art at the relevant time. As the Supreme Court has explained:

When there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense. In that instance the fact that a combination was obvious to try might show that it was obvious under § 103.

KSR Int’l Co. v. Teleflex Co., 550 U.S. 398, 421 (2007).

In view of the foregoing, we sustain the rejection of independent claim 7 under 35 U.S.C. § 103.

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*Independent Claims 9 and 17
and Dependent Claims 10–16 and 18–20*

Independent claim 9 stands rejected as obvious over Cyr, Jakobovits, Thorne, and McGee. Final 7–10.

Disputing the rejection of claim 9, the Appellant contends that the cited prior art does not teach or suggest that the recited “virtual console” “display a corrective instruction,” “wherein the corrective instruction provides progressive feedback and indicates a correct course of action, and wherein a subsequent decision point, a subsequent digital image, and a subsequent question follow a linear progression from the corrective instruction to provide a common set of data points to assess the health-care professional.” *See* Appeal Br. 29–32.

The Appellant concedes that Jakobovits teaches the claimed “corrective instruction” that “provides progressive feedback and indicates a correct course of action.” *Id.* at 30–31 (citing Jakobovits Abstract, col. 28, ll. 12–26, col. 29, ll. 5–9, col. 29, l. 63 – col. 30, l. 2). However, the Appellant argues: “Jakobovits appears to be silent as to what subsequent questions in the quiz are based on. Consequentially, Jakobovits cannot be reasonably interpreted to teach or suggest the above-noted claim features.” *Id.* at 31.

The Appellant does not challenge (albeit, stating that the “Applicant does not concede”) that McGee teaches the claimed “decision point.” *Id.*

The Appellant proceeds to argue that McGee fails to teach or suggest the remainder of the limitation: “a subsequent decision point, a subsequent digital image, and a subsequent question follow a linear progression from the corrective instruction to provide a common set of data points to assess the health-care professional.” *See id.* at 31–32. According to the Appellant,

McGee discloses only a “branched narrative,” in which the answers given by the health-care professional can follow multiple diagnostic paths, and, furthermore, McGee modulates the difficulty level of questions, based upon whether the health-care professional provides correct or incorrect responses to prior questions. *Id.* at 31 (citing McGee 2). The Appellant argues that these aspects of McGee preclude any teaching or suggestion of the claimed “linear progression,” in which there is only a single series of questions and correct answers (the claimed “common set of data points”) that applies to all the health-care professional being assessed. *Id.* at 31–32.

Yet, the Examiner relies upon Jakobovits, not McGee, for the claimed “linear progression” with a single series of questions, which necessarily “provide a common set of data points to assess the health-care professional.” *See* Final 9 (citing Jakobovits col. 29, l. 12 – col. 31, l. 31).

Indeed, Jakobovits discloses a series of questions relating to the progression of a single medical case. *See* Jakobovits col. 29, l. 12 – col. 30, l. 31. Accordingly, we are not persuaded of error in the Examiner’s finding that Jakobovits’ disclosure of the correct answer and explanation for each question, charting the path of a single medical treatment case (*see id.*), and with an unfolding disclosure of images (*see id.* at col. 30, ll. 30–31 (“interleaving of quiz questions and display of images”)) teaches the claimed “a subsequent digital image, and a subsequent question follow a linear progression from the corrective instruction to provide a common set of data points to assess the health-care professional.”

Therefore, in view of the foregoing, the Appellant does not persuade us of error in the rejection of independent claim 9. The Appellant relies upon the same analysis, with regard to independent claim 17 and dependent

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claims 10–16 and 18–20. Appeal Br. 32. Accordingly, we sustain the rejection of claims 9–20 under 35 U.S.C. § 103.

CONCLUSION

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
7, 9–20	101	Subject-matter eligibility		7, 9–20
7, 9–20	103	Cyr, Jakobovits, Thorne, McGee	7, 9–20	
Overall Outcome			7, 9–20	

TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED