



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/272,941	11/18/2008	Keith A. Ranieri	FIRST.3287US2-NY	7274
5409	7590	12/27/2019	EXAMINER	
SCHMEISER, OLSEN & WATTS 22 CENTURY HILL DRIVE SUITE 302 LATHAM, NY 12110			THAI, XUAN MARIAN	
			ART UNIT	PAPER NUMBER
			3715	
			NOTIFICATION DATE	DELIVERY MODE
			12/27/2019	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

AZ5409@IPLAWUSA.COM

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte KEITH A. RANIERE

Appeal 2018-000022
Application 12/272,941
Technology Center 3700

Before CHARLES N. GREENHUT, NATHAN A. ENGELS, and
FREDERICK C. LANEY, *Administrative Patent Judges*.

GREENHUT, *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 to reject claims 1–5, 7–13, 18–22, 24–30 and 43. *See* Non-Final Act. 1. 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. Appellant identifies the real party in interest as First Principles, Inc. Appeal Br. 1.

CLAIMED SUBJECT MATTER

The claims are directed to a determination of whether a person is a particular type of sociopath, for example a Luciferian. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A process for generating a model that is used to detect a sociopathic response, said process comprising:

providing a processor of a computer capable of executing an algorithm to determine a polarity of a person's response to a combination stimulus based on changes in dopamine levels in a brain of the person when the combination stimulus is received and processed by the brain, wherein an electrical activity of the brain of the person is recorded by medical instrumentation coupled to the computer, the electrical activity of the brain being in response to the combination stimulus, wherein the medical instrumentation picks up the electrical activity of the brain for recording and analysis that is subsequently processed according to the algorithm stored in a data processing device to create an electronic dataset to be used for generating the model;

providing a portion of the electronic dataset that is a subspace of the electronic dataset, wherein if the determined polarity is stored within the portion of the electronic dataset, the person's response is determined to be a sociopathic response;

wherein the combination stimulus comprises an N-component stimulus vector $\{S_1, S_2, \dots, S_N\}$ such that N is at least 2, wherein the determined polarity of the person's response to the combination stimulus is an N-component polarity vector $\{P_1, P_2, \dots, P_N\}$ such that P_1, P_2, \dots, P_N respectively corresponds to S_1, S_2, \dots, S_N ;

wherein the electronic dataset is an M-dimensional space of the determined polarities such that $M \geq SN$, and a value of the determined polarity located in the portion of the electronic dataset that is the subspace of the M-dimensional space is positive, indicating a release of dopamine into the brain of the person;

wherein the combination stimulus relates to selfish desires, destroying material objects or relationships, causing others pain, distress, and unhappiness;

wherein the polarity is a value assigned to be either negative or positive.

REJECTION

Claims 1–5, 7–13, 18–22, 24–30 and 43 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an abstract idea) without significantly more.

OPINION

Principles of Law

An invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. However, the Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable. *E.g.*, *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014) (internal quotation marks and citation omitted).

In determining whether a claim falls within an excluded category, we are guided by the Supreme Court’s two-step framework, described in *Mayo* and *Alice*. *See Alice*, 573 U.S. at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with that framework, we first determine what concept the claim is “directed to.” *Id.* at 219 (“On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.*, the use of a third party to mitigate settlement risk.”); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (“Claims 1 and 4 in petitioners’ application explain the basic concept of hedging, or protecting against risk.”).

Concepts determined to be abstract ideas, and, thus, patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611);

Appeal 2018-000022
Application 12/272,941

mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as “molding rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 191 (1981)); “tanning, dyeing, making water-proof cloth, vulcanizing India rubber, smelting ores” (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1853))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

If the claim is “directed to” an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where “we must examine the elements of the claim to determine whether it contains an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Alice*, 573 U.S. at 221 (internal citation omitted). “A claim that recites an abstract idea must include ‘additional features’ to ensure ‘that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].’” *Id.* (alteration in the original) (quoting *Mayo*, 566 U.S. at 77). “[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention.” *Id.*

In January of 2019, the PTO published revised guidance on the application of § 101. 2019 REVISED PATENT SUBJECT MATTER ELIGIBILITY GUIDANCE, 84 Fed. Reg. 50 (Jan. 7, 2019) (hereinafter “Memorandum”). Step 2A of that guidance involves determining whether the claim recites:

(1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes); and

(2) additional elements that integrate the judicial exception into a practical application (*see* MANUAL OF PATENT EXAMINING PROCEDURE (“MPEP”) §§ 2106.05(a)–(c), (e)–(h) (9th Ed., Rev. 08.2017, 2018)).

If a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, Step 2B of that guidance involved determining whether the claim:

(3) adds a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field (*see* MPEP § 2106.05(d)); or

(4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

See Memorandum.

Analysis

Claim Grouping

The claims are argued as a group for which we select claim 1 as representative under 37 C.F.R. § 41.37(c)(1)(iv).

Statutory Category

Claim 1 recites “[a] process for generating a model that is used to detect a sociopathic response,” and, therefore, is a process.

Recitation of Judicial Exception

The Examiner determined that “claim [1] can be understood to merely require a human being, such as a psychiatrist, to operate a computer in an

ordinary way.” Non-Final Act. 6. The Examiner correctly held claim 1 directed to a so-called “mental process”² coupled with the use of a computer in an ordinary way. Mental processes involve the use of *human* observation, evaluation, judgment (e.g., “‘comparing’ and ‘determining’”) and opinion (e.g., “believing”). See *In re Prater* 415 F. 2d 1393, 1402 n. 22 (CCPA 1969). “[M]ental processes. . .are not patentable, as they are the basic tools of scientific and technological work.” *Gottschalk*, 409 U.S. at 67 (quoted with approval in *Mayo*, 566 U.S. at 71).

Claim 1 recites “executing an algorithm to determine a polarity of a person’s response to a combination stimulus based on changes in dopamine levels in the brain.” Paragraph 33 of Appellant’s Specification makes it very clear that, even without the incidental and generic recitation of “providing a processor of a computer capable of executing,” this step could be performed entirely in the human mind:

determination of. . .the polarity of the person 10 [] could also be made by a human being instead of by the algorithm 22 within the computer 24, wherein the human being would utilize the same methodology as is utilized by the algorithm 22.

The incidental use of “computer” or “processor” does not make a claim otherwise directed to process that “can be performed in the human mind, or

² The Examiner mentioned “laws of nature” in reference only to specific aspect of the claim, involving the dopamine response (Non-Final Act. 3), as opposed to the claim as a whole. The dopamine response may very well be a law of nature. However, claim 1 only recites actions based on that response as opposed to the dopamine response itself. Thus, claim 1 as a whole, is more aptly characterized as being directed to a mental process that involves observing, classifying, and recording the results of a law of nature—a mental process.

Appeal 2018-000022
Application 12/272,941

by a human using a pen and paper” patent eligible. *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1375, 1372 (Fed. Cir. 2011).

Claim 1 also recites various data analysis steps, such as “providing a portion of the electronic dataset that is a subspace of the electronic dataset, wherein if the determined polarity is stored within the portion of the electronic dataset, the person’s response is determined to be a sociopathic response”; “the electronic dataset is an M-dimensional space of the determined polarities such that $M \leq N$, and a value of the determined polarity located in the portion of the electronic dataset that is the subspace of the M-dimensional space is positive, indicating a release of dopamine into the brain of the person”; and “the polarity is a value assigned to be either negative or positive.” Paragraph 42 of Appellant’s Specification makes it clear that these data-gathering and recording steps can also be performed in the human mind:

the recorded physiological responses 12 could be processed by a human being instead of by data processing hardware.

Paragraph 55 further indicates the instrumentation that can be used for these data gathering and recording steps includes a writing utensil and paper:

responses 12 may be recorded by instrumentation 20 and subsequently processed according to an algorithm 22 stored in a data processing device 24 to determine, and to display as output 26, whether the person 10 is a Luciferian. The instrumentation 20 may include any device (e.g., a sheet of paper, a computer diskette, etc.) that records physiological responses 12.

It is noted that the recitations relating to the nature of the stimulus are inconsequential in this analysis because claim 1 does not positively recite

Appeal 2018-000022
Application 12/272,941

any actual manipulative step concerning *providing* a stimulus.³ Rather, claim 1 is directed to only observing, categorizing, and recording only a person’s *response* to a stimulus—something which, as discussed above, can be done within the human mind or with the assistance of pen or pencil and paper. Numerous cases have held that the assistance of pen or pencil and paper does not transform a mental process into something that is patent-eligible. *See, e.g., Versata Dev. Grp. v. SAP Am., Inc.*, 793 F.3d 1306, 1335 (Fed. Cir. 2015).

Practical Application

Appellant argues:

Appellant’s claims are not attempting to tie up the ideas of detecting sociopathic responses or the detection of dopamine levels, the abstract idea and law of nature allegedly identified by the Examiner. Instead, to the extent the claims include these alleged ideas or laws of nature, they are merely steps in, or components of, the novel processes and models claimed by Appellant. The claims, when viewed as a whole, recite more than the broad, sweeping idea/law identified by the Examiner, including specific and limited rules as argued above [at App. Br. 17–18].

App. Br. 19.

The aspects of Appellant’s claim that Appellant regards as “specific and limited” relate first, to the stimulus, which is not positively recited, as discussed above, and second, to the polarity assigned to the stimulus. App.

³ It is noted that the stimulus itself is also among the excepted categories of abstract ideas because it involves the organization of human activity: “wherein the combination stimulus relates to selfish desires, destroying material objects or relationships, causing others pain, distress, and unhappiness”

Br. 18. Because the stimulus is not a required step of the claimed process, it cannot impart eligibility to the claim. *In re Self*, 671 F.2d 1344, 1348 (CCPA 1982). At most, some stimulus having multiple components or vectors must exist to practice the process. However, the claimed process is directed only to the observation, categorization and recording of a response to the stimulus. That categorization and recordation is what involves the so-called “specific and limited” “polarity vector” and “M-dimensional space.” This aspect of the claimed process is described in paragraph 51 of the Specification and illustrated in Figure 7 below:

FIG. 7 shows a projection 45 of the polarity vector \underline{P} into the space 46 to determine if the polarity vector \underline{P} is within the subspace 48. If the polarity vector \underline{P} is determined, such as by the algorithm 22 of FIG. 3, to be within the subspace 48, then the person 10 of FIG. 3 has is determined to be a Luciferian.

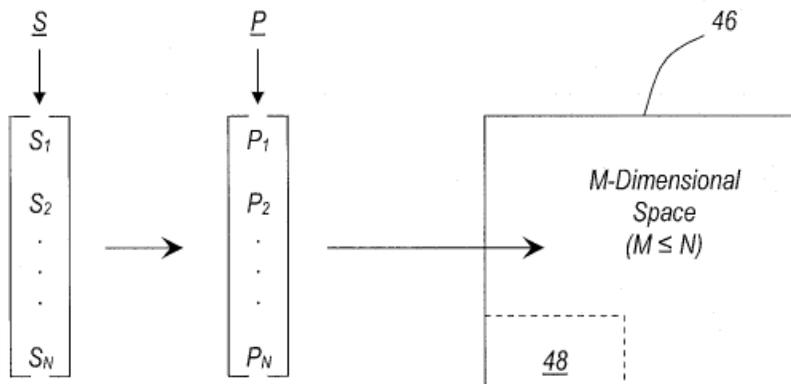


Fig. 7

These steps Appellant relies on involve the association of a number of stimulus components with a positive or negative value (according to claim 1 “the polarity is a value assigned to be either negative or positive.”). There is little, if anything, said about how this is achieved, other than via algorithm 22. As discussed above, algorithm 22 is something that was expressly

Appeal 2018-000022
Application 12/272,941

disclosed as something that could be, or could be substituted with, a process performed entirely within the human mind. Thus, these limitations do not impose any meaningful limits on the abstract idea itself. The absence of any claim recitations indicating specifically how polarity is assigned does, contrary to Appellant's arguments, raise serious concerns of preemption. Appellant, with these claims would preempt any and all techniques for determining whether someone has a negative or positive response to certain events. This includes both mental techniques and physical, technological ones. Thus we cannot agree that the recited rules for categorizing and recording a person's responses limits the claimed subject matter in some meaningful way so as to recite a practical application.

Well-Understood, Routine, Conventional Activity

Appellant argues:

The Examiner has not provided any basis for, or even alleged that, the claimed processes or models are well-understood, routine, or conventional in any field whatsoever; in fact, this represents another deficiency in the Examiner's attempt to present a *prima facie* case for ineligibility under section 101.

App. Br. 20. Appellant again relies on "the precise rules governing the stimulus" to assert that "the specific method steps cannot be said to be conventional when viewed as a whole." App. Br. 21.

As discussed above, the rules regarding the stimulus itself are ancillary to the claimed process, not part of it. Furthermore, the rules themselves are what, for the reasons discussed above, the Examiner regarded as components of the abstract idea, not routine or conventional activity. The routine or conventional activity involved the mere use of a "processor of a computer capable of executing an algorithm"; "the medical instrumentation

[that] picks up the electrical activity of the brain”; and the “electronic dataset.” Non-Final Act. 3–7. The Examiner correctly found that the recited use of computers having processors and data storage was, both individually and as an ordered combination, well-understood, routine and conventional. Non-Final Act. 3–5. The Examiner also correctly found the same with regard to “the medical instrumentation [that] picks up the electrical activity of the brain.”⁴ Non-Final Act. 6–7.

Conclusion

We have considered all of Appellant’s arguments in support of the patent eligibility of claim 1, but find them unpersuasive. Accordingly, we sustain the rejection of claims 1–5, 7–13, 18–22, 24–30 and 43 under 35 U.S.C. § 101.

CONCLUSION

The Examiner’s rejection is affirmed.

⁴ Based on the disclosure associated with “medical instrumentation” being “a sheet of paper,” reproduced above, it is not clear that “medical instrumentation” excludes the use of a human mental step when it “picks up the electrical activity of the brain” because characteristics or changes observable, and thus “pick[ed] up” by a human could correlate to “electrical activity of the brain” To the extent “medical instrumentation” is regarded as something technological or physical, it is regarded as routine or conventional. To the extent it is regarded as something that could be done by a human with or without the assistance of a pen or pencil and paper it is regarded as part of the mental process.

DECISION SUMMARY

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1-5, 7-13, 18-22, 24-30, 43	101	Abstract Idea	1-5, 7-13, 18-22, 24-30, 43	

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