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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte RAJAT RAINA, GOKUL RAJARAM, HONG GE,
JUNFENG PAN, and JOHN HEGEMAN

Appeal 2017-008959
Application 13/330,502¹
Technology Center 3600

Before ANTON W. FETTING, TARA L. HUTCHINGS, and
MATTHEW S. MEYERS, *Administrative Patent Judges*.

FETTING, *Administrative Patent Judge*.

DECISION ON APPEAL

¹ According to Appellants, the real party in interest is Facebook, Inc. (Appeal Br. 1).

STATEMENT OF THE CASE²

Rajat Raina, Gokul Rajaram, Hong Ge, Junfeng Pan, and John Hegeman (Appellants) seek review under 35 U.S.C. § 134 of a final rejection of claims 1–15 and 17–19, the only claims pending in the application on appeal. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b).

The Appellants invented a way of advertising about objects in a social networking system to users using collaborative filtering based on the users' interactions with objects in the social networking system. Specification para. 1.

An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below (bracketed matter and some paragraphing added).

1. A method comprising:

[1] maintaining an interaction log by a social networking system, the interaction log including information about a plurality of user interactions with a plurality of objects in the social networking system;

[2] storing the interaction log distributed across a plurality of databases, the interaction log stored as a user-object interaction matrix structure comprising a plurality of matrices distributed across the plurality of databases, in each of which rows

² Our decision will make reference to the Appellants' Appeal Brief ("App. Br.," filed March 8, 2017) and Reply Brief ("Reply Br.," filed June 6, 2017), and the Examiner's Answer ("Ans.," mailed April 6, 2017), and Final Action ("Final Act.," mailed June 3, 2016).

correspond to users of a user segment and columns correspond to objects, a user segment for a matrix defined based on users having a shared characteristic;

[3] for each of a plurality of pairs of objects in the social networking system, computing, by a computer, a similarity score for the pair of objects, by:

[3.1] identifying one or more segments of users having interactions with both of the pair of objects;

[3.2] identifying one or more data structures stored in one or more of the databases corresponding to the identified segments of users;

[3.3] determining a measure of users who have interacted with both of the pair of objects, wherein the measure of users who have interacted with both of the pair of objects can be represented by a formula:

$$\sum_{i=1}^n (\text{Object } A_i) (\text{Object } B_i)$$

where Object A_i denotes a measure of an interaction of an i^{th} user of n users with Object A, Object B_i denotes a measure of an interaction of the i^{th} user of the n users with Object B, and $\sum(\text{Object } A_i) (\text{Object } B_i)$ denotes a sum of products of measures of interaction with Object A and Object B for all of the n users,

[3.4] determining a measure of users who have interacted with at least one of the pair of objects,

[3.5] normalizing, by the computer, the measure of users who have interacted with both of the pair of objects by the measure of users who have interacted with at least one of the pair of objects,

and

[3.6] determining the similarity score between the pair of objects based on the normalized measure of users who have interacted with both of the pair of objects;

[4] identifying, from the interaction log, an interaction with a first object of the plurality of objects by a viewing user;

[5] selecting a second object from the plurality of objects based on the similarity score between the first and the second object;

and

[6] sending an advertisement associated with the second object for display to the viewing user.

Claims 1–15 and 17–19 stand rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more.

ISSUES

The issues of eligible subject matter turn primarily on whether the claims recite more than abstract conceptual advice of results desired.

ANALYSIS

STEP 1³

Claim 1, as a method claim, nominally recites one of the enumerated categories of eligible subject matter in 35 U.S.C. § 101. The issue before us is whether it is directed to a judicial exception without significantly more.

STEP 2

The Supreme Court

set forth a framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts. First, . . . determine whether the claims at issue are directed to one of those patent-ineligible concepts. If so, we then ask, “[w]hat

³ For continuity of analysis, we adopt the steps nomenclature from 2019 Revised Patent Subject Matter Eligibility Guidance, 84 FR 50 (Jan. 7, 2019) (“Revised Guidance”).

else is there in the claims before us? To answer that question, . . . consider the elements of each claim both individually and “as an ordered combination” to determine whether the additional elements “transform the nature of the claim” into a patent-eligible application. [The Court] described step two of this analysis as a search for an “inventive concept”—i.e., an element or combination of elements that is “sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.”

Alice Corp., Pty. Ltd. v. CLS Bank Intl, 573 U.S. 208, 217–18 (2014) (citations omitted) (citing *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (2012)). To perform this test, we must first determine what the claims are directed to. This begins by determining whether the claims recite one of the judicial exceptions (a law of nature, a natural phenomenon, or an abstract idea). Then, if claims recite a judicial exception, determining whether the claims at issue are directed to the recited judicial exception, or whether the recited judicial exception is integrated into a practical application of that exception, i.e., that the claims “apply, rely on, or use 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.” Revised Guidance at 54. If the claims are directed to a judicial exception, then finally determining whether the claims provide an inventive concept because the additional elements recited in the claims provide significantly more than the recited judicial exception.

STEP 2A Prong 1

At a high level, and for our preliminary analysis, we note that method claim 1 recites maintaining and storing a log, computing similarity scores by identifying data segments and the structures they are stored in and

determining and normalizing user measures, identifying an interaction, selecting an object, and sending an advertisement. Maintaining a log is just receiving and storing its data. Computing scores is conventional mathematical analysis. Identifying and selecting data is rudimentary data analysis. Sending an advertisement is data transmission. Thus, claim 1 recites receiving, storing, analyzing, and transmitting data. None of the limitations recite technological implementation details for any of these steps, but instead recite only results desired by any and all possible means.

From this we see that claim 1 does not recite the judicial exceptions of either natural phenomena or laws of nature.

Under Supreme Court precedent, claims directed purely to an abstract idea are patent ineligible. As set forth in the Revised Guidance, which extracts and synthesizes key concepts identified by the courts, abstract ideas include (1) mathematical concepts,⁴ (2) certain methods of organizing human activity,⁵ and (3) mental processes.⁶ Among those certain methods of organizing human activity listed in the Revised Guidance are fundamental economic practices, or commercial or legal interactions or managing

⁴ See, e.g., *Gottschalk v. Benson*, 409 U.S. 63, 71–72 (1972); *Bilski v. Kappos*, 561 U.S. 593, 611 (2010); *Mackay Radio & Telegraph Co. v. Radio Corp. of Am.*, 306 U.S. 86, 94 (1939); *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1163 (Fed. Cir. 2018).

⁵ See, e.g., *Bilski*, 561 U.S. at 628; *Alice*, 573 U.S. at 219–20; *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014); *Smart Sys. Innovations, LLC v. Chicago Transit Auth.*, 873 F.3d 1364, 1383 (Fed. Cir. 2017); *In re Marco Guldenaar Holding B.V.*, 911 F.3d 1157, 1160–61 (Fed. Cir. 2018).

⁶ See, e.g., *Benson*, 409 U.S. at 67; *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1371–72 (Fed. Cir. 2011); *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1318 (Fed. Cir. 2016).

personal behavior or relationships or interactions between people as a certain method of organizing human activity. Like those concepts, claim 1 recites the concept of selecting and sending an advertisement. Specifically, claim 1 recites operations that would ordinarily take place in advising one to send an ad that is associated with an object that interacted with another object that is similar to the first object based on a computed similarity score derived from user interaction measurements. The advice to send an ad that is associated with an object that interacted with another object that is similar to the first object based on a computed similarity score derived from user interaction measurements involves sending an ad, which is an economic act, and selecting the ad, which is an act ordinarily performed in the stream of commerce. For example, claim 1 recites “sending an advertisement,” which is an activity that would take place whenever one is advertising. Similarly, claim 1 recites “an advertisement . . . for display to the viewing user,” which is also characteristic of selecting an ad to send.

The Examiner determines the claims to be directed to selecting advertisements for its users using collaborative filtering based on user interactions with objects. Ans. 4.

The preamble to claim 1 does not recite what it is to achieve, but the steps in claim 1 result in sending an advertisement absent any technological mechanism other than a conventional computer for doing so.

As to the specific limitations, limitations 1 and 2 recite data gathering. Limitation 3 recites performing a mathematical computation on collected data representing interactions of software objects to produce similarity scores. Limitations 4 and 5 recite conventional analyzing of data, which advise one to apply generic functions such as identifying and selecting to get

to these results. Limitation 6 is the only step performing what the claim produces and recites sending an ad that has been selected, which is simply data transmission. Note that limitation 10 only implies the selection of the ad, the selection is not actually recited as a step in claim 1. The limitations thus recite advice for sending an ad that is associated with an object that interacted with another object that is similar to the first object based on a computed similarity score derived from user interaction measurements. To advocate sending an ad that is associated with an object that interacted with another object that is similar to the first object based on a computed similarity score derived from user interaction measurements is conceptual advice for results desired and not technological operations.

The Specification at paragraph 1 describes the invention as relating to advertising about objects in a social networking system to users using collaborative filtering based on the users' interactions with objects in the social networking system. Thus, all this intrinsic evidence shows that claim 1 is directed to using some statistical measure to select and send an ad, i.e. selecting and sending an advertisement. This is consistent with the Examiner's determination.

This in turn is an example of fundamental economic practices, or commercial or legal interactions or managing personal behavior or relationships or interactions between people as a certain method of organizing human activity because advertising is a fundamental economic practice as evidenced by its pervasiveness, advertising is an example of commercial or legal interactions in creating and sending the ad, and advertising based on data representing interactions among users is a way of managing the personal behavior of those users to influence their purchase

decisions. The concept of selecting and sending an advertisement by sending an ad that is associated with an object that interacted with another object that is similar to the first object based on a computed similarity score derived from user interaction measurements is one idea for how to quantify a measure for selecting an ad to send. The steps recited in claim 1 are part of how this might conceptually be premised.

Our reviewing court has found claims to be directed to abstract ideas when they recited similar subject matter. *See Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014) (using advertising).

Alternately, this is an example of concepts performed in the human mind as mental processes because the steps of receiving, storing, analyzing, and transmitting data mimic human thought processes of observation, evaluation, judgment, and opinion, perhaps with paper and pencil, where the data interpretation is perceptible only in the human mind. *See In re TLI Commc'ns LLC Patent Litig.*, 823 F.3d 607, 611 (Fed. Cir. 2016); *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1093–94 (Fed. Cir. 2016). Claim 1, unlike the claims found non-abstract in prior cases, uses generic computer technology to perform data reception, storage, analysis, and transmission and does not recite an improvement to a particular computer technology. *See, e.g., McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314–15 (Fed. Cir. 2016) (finding claims not abstract because they “focused on a specific asserted improvement in computer animation”). As such, claim 1 is directed to receiving, storing, analyzing, and transmitting data, and not a technological implementation or application of that idea.

From this we conclude that at least to this degree, claim 1 is directed to selecting and sending an advertisement by sending an ad that is associated with an object that interacted with another object that is similar to the first object based on a computed similarity score derived from user interaction measurements, which is a commercial and legal interaction, one of certain methods of organizing human activity identified in the Revised Guidance, and, thus, an abstract idea.

STEP 2A Prong 2

The next issue is whether claim 1 not only recites, but is more precisely directed to this concept itself or whether it is instead directed to some technological implementation or application of, or improvement to, this concept i.e. integrated into a practical application.⁷

At the same time, we tread carefully in construing this exclusionary principle lest it swallow all of patent law. At some level, “all inventions ... embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.” Thus, an invention is not rendered ineligible for patent simply because it involves an abstract concept. “[A]pplication[s]” of such concepts “ ‘to a new and useful end,’ ” we have said, remain eligible for patent protection. Accordingly, in applying the § 101 exception, we must distinguish between patents that claim the “ ‘buildin[g] block[s]’ ” of human ingenuity and those that integrate the building blocks into something more.

Alice, 573 U.S. at 217 (citations omitted).

Taking the claim elements separately, the operation performed by the computer at each step of the process is expressed purely in terms of results, devoid of implementation details. Steps 1 and 2 are pure data gathering

⁷ See, e.g., *Alice*, 573 U.S. at 223, discussing *Diamond v. Diehr*, 450 U.S. 175 (1981).

steps. Limitations describing the nature of the data do not alter this. Step 6 is insignificant post solution activity, such as transmitting or displaying the results. Steps 3–5 recite generic computer processing expressed in terms of results desired by any and all possible means and so present no more than conceptual advice. All purported inventive aspects reside in how the data is interpreted and the results desired, and not in how the process physically enforces such a data interpretation or in how the processing technologically achieves those results.

Viewed as a whole, Appellants' claim 1 simply recites the concept of selecting and sending an advertisement by sending an ad that is associated with an object that interacted with another object that is similar to the first object based on a computed similarity score derived from user interaction measurements as performed by a generic computer. This is no more than conceptual advice on the parameters for this concept and the generic computer processes necessary to process those parameters, and do not recite any particular implementation.

Claim 1 does not, for example, purport to improve the functioning of the computer itself. Nor does it effect an improvement in any other technology or technical field. The 22+ pages of Specification spell out different generic equipment⁸ and parameters that might be applied using this concept and the particular steps such conventional processing would entail based on the concept of selecting and sending an advertisement by sending an ad that is associated with an object that interacted with another object that is similar to the first object based on a computed similarity score derived

⁸ The Specification describes a conventional computer system. Spec. para. 29.

from user interaction measurements under different scenarios. They do not describe any particular improvement in the manner a computer functions. Instead, claim 1 at issue amounts to nothing significantly more than an instruction to apply selecting and sending an advertisement by sending an ad that is associated with an object that interacted with another object that is similar to the first object based on a computed similarity score derived from user interaction measurements using some unspecified, generic computer. Under our precedents, that is not enough to transform an abstract idea into a patent-eligible invention. *See Alice*, 573 U.S. at 225–26.

None of the limitations reflect an improvement in the functioning of a computer, or an improvement to other technology or technical field, applies or uses a judicial exception to effect a particular treatment or prophylaxis for a disease or medical condition, implements a judicial exception with, or uses a judicial exception in conjunction with, a particular machine or manufacture that is integral to the claim, effects a transformation or reduction of a particular article to a different state or thing, or applies or uses the judicial exception in some other meaningful way beyond generally linking the use of the judicial exception to a particular technological environment, such that the claim as a whole is more than a drafting effort designed to monopolize the exception.

We conclude that claim 1 is directed to achieving the result of selecting and sending an advertisement by advising one to sending an ad that is associated with an object that interacted with another object that is similar to the first object based on a computed similarity score derived from user interaction measurements, as distinguished from a technological improvement for achieving or applying that result. This amounts to

commercial or legal interactions, which fall within certain methods of organizing human activity that constitute abstract ideas. The claim does not integrate the judicial exception into a practical application.

STEP 2B

The next issue is whether claim 1 provides an inventive concept because the additional elements recited in the claim provide significantly more than the recited judicial exception.

The introduction of a computer into the claims does not generally alter the analysis at *Mayo* step two.

the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention. Stating an abstract idea “while adding the words ‘apply it’” is not enough for patent eligibility. Nor is limiting the use of an abstract idea “to a particular technological environment.” Stating an abstract idea while adding the words “apply it with a computer” simply combines those two steps, with the same deficient result. Thus, if a patent’s recitation of a computer amounts to a mere instruction to “implement[t]” an abstract idea “on . . . a computer,” that addition cannot impart patent eligibility. This conclusion accords with the preemption concern that undergirds our § 101 jurisprudence. Given the ubiquity of computers, wholly generic computer implementation is not generally the sort of “additional feature[e]” that provides any “practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself.”

Alice, 573 U.S. at 223–24 (citations omitted).

“[T]he relevant question is whether the claims here do more than simply instruct the practitioner to implement the abstract idea [] on a generic computer.” *Alice*, 573 U.S. at 225. They do not.

Taking the claim elements separately, the function performed by the computer at each step of the process is purely conventional. Using a computer for receiving, storing, analyzing, and transmitting data amounts to electronic data query and retrieval—one of the most basic functions of a computer.

All of these computer functions are generic, routine, conventional computer activities that are performed only for their conventional uses. *See Elec. Power Grp. v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016). Also see *In re Katz Interactive Call Processing Patent Litigation*, 639 F.3d 1303, 1316 (Fed. Cir. 2011) (“Absent a possible narrower construction of the terms ‘processing,’ ‘receiving,’ and ‘storing,’ . . . those functions can be achieved by any general purpose computer without special programming”). None of these activities are used in some unconventional manner nor do any produce some unexpected result. Appellants do not contend they invented any of these activities. In short, each step does no more than require a generic computer to perform generic computer functions. As to the data operated upon, “even if a process of collecting and analyzing information is ‘limited to particular content’ or a particular ‘source,’ that limitation does not make the collection and analysis other than abstract.” *SAP America, Inc. v. InvestPic LLC*, 898 F.3d 1161, 1168 (Fed. Cir. 2018).

The limitation of

the interaction log stored as a user-object interaction matrix structure comprising a plurality of matrices distributed across the plurality of databases, in each of which rows correspond to users of a user segment and columns correspond to objects, a user segment for a matrix defined based on users having a shared characteristic

is not a step, but a recitation of where the data resides. The claims recite no particularly technological reliance on such distribution, and indeed the remaining steps do not even mention such distribution. Instead, the Specification paragraph 46 merely states that such distribution allows accommodation of large data sets. This is no more than the use of distribution for one of its intended purposes. Thus, to the extent this is a structural limitation on the method steps, it is no more pertinent to this issue than the structures of generic computers.

Storing data in matrices is equivalent to storing in database tables, which are mathematical analogs of matrices. In any event, a matrix (and a table) is an abstract data type (a term of art separate from the use of the term “abstract” in the patent context) that in itself demonstrates no particular technological implementation (which is the point of referring to abstract data types). Therefore, referring to a matrix in a claim does not produce a technological implementation.

Considered as an ordered combination, the computer components of Appellants’ claim 1 add nothing that is not already present when the steps are considered separately. The sequence of data reception-storage-analysis-transmission is equally generic and conventional. *See Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014) (sequence of receiving, selecting, offering for exchange, display, allowing access, and receiving payment recited an abstraction), *Inventor Holdings, LLC v. Bed Bath & Beyond, Inc.*, 876 F.3d 1372, 1378 (Fed. Cir. 2017) (sequence of data retrieval, analysis, modification, generation, display, and transmission), *Two-Way Media Ltd. v. Comcast Cable Communications, LLC*, 874 F.3d 1329, 1339 (Fed. Cir. 2017) (sequence of processing, routing, controlling,

and monitoring). The ordering of the steps is therefore ordinary and conventional.

We conclude that claim 1 does not provide an inventive concept because the additional elements recited in the claim do not provide significantly more than the recited judicial exception.

REMAINING CLAIMS

Claim 1 is representative. The other independent method claim 15 is substantially similar at least as regards this analysis. The remaining method claims merely describe process parameters. We conclude that the method claims at issue are directed to a patent-ineligible concept itself, and not to the practical application of that concept.

As to the structural claim 14, it is

no different from the method claims in substance. The method claims recite the abstract idea implemented on a generic computer; the system claims recite a handful of generic computer components configured to implement the same idea. This Court has long “warn[ed] ... against” interpreting § 101 “in ways that make patent eligibility ‘depend simply on the draftsman’s art.’”

Alice, 573 U.S. at 226. As a corollary, the claims are not directed to any particular machine.

LEGAL CONCLUSION

From these determinations we further determine that the claims do not recite an improvement to the functioning of the computer itself or to any other technology or technical field, a particular machine, a particular transformation, or other meaningful limitations. From this we conclude the claims are directed to the judicial exception of the abstract idea of certain methods of organizing human activity as exemplified by the commercial and

legal interaction of selecting and sending an advertisement by advising one to send an ad that is associated with an object that interacted with another object that is similar to the first object based on a computed similarity score derived from user interaction measurements, without significantly more.

APPELLANTS' ARGUMENTS

As to Appellants' Appeal Brief arguments, we adopt the Examiner's determinations and analysis from Final Action 16–25 and Answer 3–20 and reach similar legal conclusions. We now turn to the Reply Brief.

We are not persuaded by Appellants' argument that

the claimed process includes new steps that were developed to implement the concept of collaborative filtering within a social networking system while addressing technical problems that did not exist before. One fundamental purpose of social networking systems is to select and present content that is likely to be of interest to a user from among a near countless number of content items. Improvements to these functions are not abstract concepts, but instead provide a better social networking system

Reply Br. 3. Merely ascribing some purpose to an abstract idea generally does not make it less abstract. Conceptual improvements to an abstract idea are still an abstract idea. “Adding one abstract idea . . . to another abstract idea . . . does not render the claim nonabstract.”

RecogniCorp, LLC v. Nintendo Co., Ltd., 855 F.3d 1322, 1327 (2017).

We are not persuaded by Appellants' argument that “the claimed process recites limitations that are unique to overcoming the technical challenge of using collaborative filtering to identify objects of interest to users among billions of users and objects and the many more numerous interactions between them stored in different locations.” Reply Br. 3.

Uniqueness is generally by itself not an indicator of being non-abstract. Technical difficulties may be conceptually overcome, as is the case with the instant claims. Conceptual ideas, absent technological implementation details, are generally insufficient to turn an abstract idea into something not abstract.

At that level of generality, the claims do no more than describe a desired function or outcome, without providing any limiting detail that confines the claim to a particular solution to an identified problem. The purely functional nature of the claim confirms that it is directed to an abstract idea, not to a concrete embodiment of that idea.

Affinity Labs of Texas, LLC v. Amazon.com Inc., 838 F.3d 1266, 1269 (2016).

We are not persuaded by Appellants' argument that

this claimed limitation adds an unconventional step to collaborative filtering (i.e., storing the interaction information in a matrix by user segment). Moreover, since such a large volume of information cannot all be stored in a single location, this claimed limitation also addresses a technical constraint of the social networking system by storing the interaction information "across a plurality of databases." Without these features, the claimed method of collaborative filtering would not be technically feasible at the scale of existing social networking systems.

Reply Br. 4. As we determined supra, storing data in a matrix is no more than storing in a conventional table, which is a subset of a matrix. And even then, a matrix is a conceptual generic "abstract data type" that in itself provides no technological implementation details. Thus, this is no more than reciting an idea to store data by user segment. As to distribution of the data, as we determine supra, this is simply using distribution for its known intended use, which is to assist in storing large amounts of data. As to

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technical feasibility at scale, the claims recite no particular scale, and scale is simply a matter of context. “The Supreme Court and this court have repeatedly made clear that merely limiting the field of use of the abstract idea to a particular existing technological environment does not render the claims any less abstract.” *Affinity Labs of Texas, LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1258 (Fed. Cir. 2016).

We are not persuaded by Appellants’ argument that the recited calculation and normalization improves results. Reply Br. 5. Using math to improve results by itself is generally insufficient. *See Benson supra*.

CONCLUSIONS OF LAW

The rejection of claims 1–15 and 17–19 under 35 U.S.C. § 101 as directed to a judicial exception without significantly more is proper.

DECISION

The rejection of claims 1–15 and 17–19 is affirmed.

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) (2011).

AFFIRMED