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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MARK ANDREW GAMMON

Appeal 2018-000252
Application 11/947,233[1]
Technology Center 3600

Before MURRIEL E. CRAWFORD, ANTON W. FETTING, and TARA L. HUTCHINGS, *Administrative Patent Judges*.

FETTING, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE[2]

Mark Andrew Gammon (Appellant) seeks review under 35 U.S.C. § 134 of a final rejection of claims 1–20, the only claims pending in the application on appeal. This is the second time this Application has come before us on appeal. In our Decision mailed December 9, 2015 (Appeal 2013-003970), we reversed the rejections over obviousness. In this

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[1] According to Appellant, the real party in interest is The Procter & Gamble Company (Br. 1).

[2] Our Decision will make reference to the Appellant's Appeal Brief ("Br.," filed April 28, 2017) and the Examiner's Answer ("Ans.," mailed July 12, 2017), and Final Office Action ("Final Act.," mailed November 28, 2016).

appeal, the newly-raised, sole issue is that of eligible subject matter. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b).

The Appellant invented a way of forecasting the volume impact of a target promotion. Spec. 1:8–9.

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

> 1. A method of forecasting target volume of a target product of a target promotion in a store comprising the steps:
>
> (a) defining target promotion attributes of the target promotion, wherein the target promotion attributes comprise the target product, a target product promotion price, a target promotion time period, or combinations thereof;
>
> (b) assessing purchase data of a store, wherein the purchase data comprises data about a historical promotion, wherein the historical promotion comprises historical promotion attributes; wherein the historical promotion attributes comprise:
>
> a historical product, a historical product promotion price, a historical promotion time period, and combinations thereof;
>
> (c) identifying one or more historical promotion(s) from the assessed purchase data that matches the target promotion based on the respective target promotion attributes and historical promotion attributes;
>
> (d) identifying a single highest selling historical promotion from the one or more identified historical promotion(s);
>
> (e) determining a historical volume of the historical product of the identified single highest selling historical promotion; and
>
> (f) forecasting the target volume of the target product of the target promotion based upon the determined volume of the historical product.

Claims 1–20 stand rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more.[3]

ISSUES

The issues of eligible subject matter turn primarily on whether the claims recite more than abstract conceptual advice of what a computer is to provide without implementation details.

ANALYSIS

STEP 1[4]

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 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

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[3] A 35 U.S.C. § 112 written description rejection (Final Act. 8–9) was withdrawn. Ans. 7.

[4] For continuity of analysis, we adopt the steps nomenclature from 2019 REVISED PATENT SUBJECT MATTER ELIGIBILITY GUIDANCE, 84 Fed. Reg. 50 (Jan. 7, 2019) ("2019 Revised Guidance").

> 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 Int'l, 573 U.S. 208, 217–18 (2014) (citing *Mayo Collaborative Servs. v. Prometheus Labs., 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." 2019 Guidance, 84 Fed. Reg. 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

Method claim 1 recites defining target promotion attributes; assessing purchase data of a store; identifying one or more historical promotions; identifying a single highest selling historical promotion; determining a historical volume; and forecasting the target volume. Thus, claim 1 recites receiving, selecting, and analyzing 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 in-eligible. As set forth in the 2019 Revised Guidance, which extracts and synthesizes key concepts identified by the courts, abstract ideas include (1) mathematical concepts[5], (2) certain methods of organizing human activity[6], and (3) mental processes[7]. Among those certain methods of organizing human activity listed in the 2019 Revised Guidance are commercial or legal interactions. Like those concepts, claim 1 recites the concept of marketing promotion. Specifically, claim 1 recites operations that would ordinarily take place in advising one to forecasting target volume for a promotion that was devised from target attributes, store data, and historical data. The advice to forecast target volume for a promotion that was devised from target attributes, store data, and historical data involves promoting commerce, which is an economic act, and planning for such promotion, which is an act ordinarily performed in the stream of commerce. For example, claim 1 recites "a target promotion in a store," which is an

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[5] *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).

[6] *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).

[7] *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).

activity that would take place whenever one is promoting commerce with marketing promotions. Similarly, claim 1 recites "assessing purchase data of a store" and "identifying one or more historical promotion(s)," which are also characteristics of planning for promotions.

The Examiner determines the claims to be directed to forecasting of/for a target product for a financial transaction. Final Act. 5.

The preamble to claim 1 recites that it is a method of forecasting target volume of a target product of a target promotion in a store. The steps in claim 1 result in forecasting the target volume of the target product of the target promotion absent any technological mechanism other than a conventional computer for doing so.

As to the specific limitations, limitations a–e recite insignificant receiving, selecting, and analyzing of promotion, store, and historical data, which advise one to apply generic functions to get to these results. Limitation f is the only step associated with performing what the claim produces and recites performing a forecast, which is simply making an estimate of future data. The limitations, thus, recite advice for forecasting target volume for a promotion that was devised from target attributes, store data, and historical data. To advocate forecasting target volume for a promotion that was devised from target attributes, store data, and historical data is conceptual advice for results desired and not technological operations.

The Specification at page 1, lines 8–9 describes the invention as relating to forecasting the volume impact of a target promotion. Thus, all this intrinsic evidence shows that claim 1 is directed to forecasting the

volume impact of a target promotion, i.e., marketing promotion. This is consistent with the Examiner's determination.

This in turn is an example of commercial or legal interactions as a certain method of organizing human activity because marketing promotions are ways that organization marketing efforts drive customers to make purchases. The concept of marketing promotion as advised to be done by forecasting target volume for a promotion that was devised from target attributes, store data, and historical data is an idea for developing a promotion and making forecasts for it to elicit more customers and sales. The steps recited in claim 1 are part of using this idea.

Our reviewing court has found claims to be directed to abstract ideas when they recited similar subject matter. *Ultramercial*, 772 F.3d at 715 (advertising).

Alternately, this is an example of concepts performed in the human mind as mental processes because the steps of receiving, selecting, and analyzing 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, selection, and analysis 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, selecting, and analyzing 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 marketing promotion by forecasting target volume for a promotion that was devised from target attributes, store data, and historical data.

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.[8]

> 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).

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

> [T]he 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

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

> 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 "implemen[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 featur[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 operation performed by the computer at each step of the process is expressed purely in terms of results, devoid of implementation details. Steps a–e are pure data gathering steps. Limitations describing the nature of the data do not alter this. Step f recites 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, Appellant's claim 1 simply recites the concept of marketing promotion by forecasting target volume for a promotion that was devised from target attributes, store data, and historical data 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 7 pages of Specification do not bulge with disclosure, but only spell out different generic equipment[9] and parameters that might be applied using this concept and the particular steps such conventional processing would entail based on the concept of marketing promotion by forecasting target volume for a promotion that was devised from target attributes, store data, and historical data 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 marketing promotion by forecasting target volume for a promotion that was devised from target attributes, store data, and historical data 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

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[9] The Specification describes a computer as being described in U.S. 2006/0010027 A1, paragraph 78. Spec. 7:4–5. This published application paragraph describes a general purpose computer.

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 marketing promotion by advising one to forecasting target volume for a promotion that was devised from target attributes, store data, and historical data 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. 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, selecting, and analyzing 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*, 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. Appellant does 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 Am.*, 898 F.3d at 1168.

Considered as an ordered combination, the computer components of Appellant's claim 1 add nothing that is not already present when the steps are considered separately. The sequence of data reception-selection-analysis is equally generic and conventional. *See Ultramercial*, 772 F.3d at 715 (sequence of receiving, selecting, offering for exchange, displaying, 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 Commc'ns, 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 claims 10 and 14 are substantially similar at least as regards this analysis. Claim 14 is

slightly different in that it results in optimizing a mix of products for the promotion and shipping the products to the store. These steps are still part of a marketing promotion, which is again a commercial interaction, and not a technological improvement. These steps are, therefore, conceptual advice to optimize and ship parts. 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 claims, they

> are 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 (internal citations omitted). 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 marketing promotion by advising one to forecast target volume for a promotion that was devised from target attributes, store data, and historical data, without significantly more.

APPELLANT'S ARGUMENTS

As to Appellant's Appeal Brief arguments, we adopt the Examiner's determinations and analysis from the Final Office Action at pages 5–8 and Answer at pages 8–12 and reach similar legal conclusions. In particular, we note the following.

We are not persuaded by Appellant's argument that

> Applicant submits that the claims are directed to machines and processes associated with forecasting market promotion effectiveness in terms of sales volume, not the broad abstractions of organizing human activities. Applicant submits that the acts of optimizing a mix of products which are to be sold, forecasting the combination of a mix of products across multiple stores, determining a historical volume of each product of the target promotion and forecasting a target volume for each product of the target promotion, cannot properly be characterized as abstractions as each can be clearly defined in terms of tangible activities and concrete outputs.

Br. 4–5. The Specification describes the machines as general purpose computers. *See supra*. The argument that the steps cannot be characterized as abstractions is conclusory. The activities described are data processing activities and the outputs are data. Such activities and outputs are concepts interpretable only by the human mind. *See supra*.

We are not persuaded by Appellant's argument that the claims do not preempt the ideas. Br. 6. "Where a patent's claims are deemed only to disclose patent ineligible subject matter under the *Mayo[/Alice]* framework, as they are in this case, preemption concerns are fully addressed and made

moot." *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015).

CONCLUSIONS OF LAW

The rejection of claims 1–20 under 35 U.S.C. § 101 as directed to a judicial exception without significantly more is proper.

DECISION

The rejection of claims 1–20 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