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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JULIE WARD DREW,
FILIPPO BALESTRIERI,
ENIS KAYIS,
SHYAM SUNDAR RAJARAM,
and SHAIENDRA K. JAIN

Appeal 2017–000668
Application 13/634,772
Technology Center 3600¹

Before ANTON W. FETTING, BRUCE T. WIEDER, and
TARA L. HUTCHINGS, *Administrative Patent Judges*.
FETTING, *Administrative Patent Judge*.

DECISION ON APPEAL

¹ According to Appellants, the real party in interest is Hewlett Packard Enterprise Development LP. Appeal Br. 1.

STATEMENT OF THE CASE²

Julie Ward Drew, Filippo Balestrieri, Enis Kayis, Shyam Sundar Rajaram, and Shailendra K. Jain (Appellants) seek review under 35 U.S.C. § 134 of a final rejection of claims 1–4 and 7–15, 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 to permit a retailer to select which products to offer for sale to consumers, such as where there are a limited number of slots that can be populated with products. Specification 2:21–23.

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] assigning, by a computing device,

each product of a plurality of products

to one of a plurality of popularity tiers,

the popularity tiers ordered from a most popular tier to a least popular tier,

the popularity tiers indicating how popular the products are expected to be among consumers;

[2] assigning, by the computing device,

² Our decision will make reference to the Appellants’ Appeal Brief (“App. Br.,” filed March 25, 2016) and Reply Brief (“Reply Br.,” filed October 11, 2016), and the Examiner’s Answer (“Ans.,” mailed August 11, 2016), and Final Action (“Final Act.,” mailed October 23, 2015).

each product

to one of a plurality of margin tiers,

the margin tiers ordered from a highest margin tier to a lowest margin tier,

the margin tiers indicating how much money a retailer makes in selling the products to the consumers

on a web page having a predetermined number of slots that are visible on displays viewed by the consumers without the consumers having to scroll;

[3] selecting, by the computing device,

which of the products

to offer for sale by the retailer to the consumers

by applying a plurality of decision rules

to the products that have been assigned to the popularity tiers and to the margin tiers

to fill the slots that are each to be populated with one of the products,

each slot being an empty slot before the one of the products has been assigned thereto and a filled slot after the one of the products has been assigned thereto;

and

[4] displaying the web page, by the computing device,

to the consumers on the displays,

in which the slots of the web page have been populated with the products assigned thereto,

wherein each decision rule comprises a parameter selected from:

a first value indicating that the products that are present in both the given popularity tier and the

given margin tier are to be selected for offering for sale to the consumers;

one or more second values indicating that the products that are present in both the given popularity tier and the given margin may be selected for offering for sale to the consumers;

and

a third value indicating that the products that are present in both the given popularity tier and the given margin tier are not to be selected for offering for sale to the consumers.

Claims 1–4 and 7–15 stand rejected under 35 U.S.C. § 101 as directed to non–statutory subject matter.

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

Method claim 1 recites assigning each product to a popularity tier and a margin tier, selecting which products to sell using decision rules, and displaying products in display slots. Thus, claim 1 recites storing data in data structures, applying decision criteria to the data, and displaying the data according to the decision outcomes. None of the limitations recite implementation details for any of these steps, but instead recite functional

results to be achieved by any and all possible means. Data reception, analysis and modification, and display are all generic, conventional data processing operations to the point they are themselves concepts awaiting implementation details. The sequence of data reception—analysis—display is equally generic and conventional. The ordering of the steps is therefore ordinary and conventional. The remaining claims merely describe parameters for decision criteria or grouping products for sale, with no implementation details.

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 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, 134 S.Ct. 2347, 2355 (2014) (citing *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (2012)).

To perform this test, we must first determine whether the claims at issue are directed to a patent-ineligible concept. The Examiner finds the claims directed to “selling products, which is considered to be an abstract idea

inasmuch as such activity is considered both a fundamental economic practice and a method of organizing human activity.” Final Act. 3–4.

Although the Court in *Alice* made a determination as to what the claims were directed to, we find that this case’s claims themselves and the Specification provide enough information to inform one as to what they are directed to.

The preamble to claim 1 does not recite what it is directed to, but the steps in claim 1 result in displaying a web page of products, some of which may be offered for sale. The Specification at 2:21–23 recites that the invention relates to permitting a retailer to select which products to offer for sale to consumers, such as where there are a limited number of slots that can be populated with products. Thus, all this evidence shows that claim 1 is directed to selecting products for sale, i.e. sales. This is consistent with the Examiner’s finding.

It follows from prior Supreme Court cases, and *Bilski* (*Bilski v Kappos*, 561 U.S. 593 (2010)) in particular, that the claims at issue here are directed to an abstract idea. Like the risk hedging in *Bilski*, the concept of sales is a fundamental economic practice long prevalent in our system of commerce. The use of sales is also a building block of ingenuity in any market economy. Thus, sales, like hedging, is an “abstract idea” beyond the scope of §101. See *Alice Corp. Pty. Ltd.* at 2356.

As in *Alice Corp. Pty. Ltd.*, we need not labor to delimit the precise contours of the “abstract ideas” category in this case. It is enough to

recognize that there is no meaningful distinction in the level of abstraction between the concept of risk hedging in *Bilski* and the concept of sales at issue here. Both are squarely within the realm of “abstract ideas” as the Court has used that term. *See Alice Corp. Pty. Ltd.* at 2357.

Further, claims involving data collection, analysis, and display are directed to an abstract idea. *Elec. Power Grp. v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016) (holding that “collecting information, analyzing it, and displaying certain results of the collection and analysis” are “a familiar class of claims ‘directed to’ a patent ineligible concept”); *see also 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 retrieval, analysis, and display 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 the abstract idea of receiving, analyzing, and displaying data.

The remaining claims merely describe parameters for decision criteria or grouping products for sale. We conclude that the claims at issue are directed to a patent–ineligible concept.

The introduction of a computer into the claims does not 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 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 Corp. Pty. Ltd., 134 S.Ct. at 2358 (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 Corp. Pty. Ltd.*, 134 S.Ct. at 2359. 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 to store data in a structure, apply decision criteria, and display the data according to the results of those decisions amounts to electronic data query and retrieval—one of the most basic functions of a computer. All of these computer functions are well–understood, routine, conventional

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activities previously known to the industry. *See Elec. Power Grp. v. Alstom S.A., supra.* 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”). 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*, 890 F.3d 1016, 1022 (Fed. Cir. 2018).

Considered as an ordered combination, the computer components of Appellants’ method add nothing that is not already present when the steps are considered separately. The sequence of data reception–analysis–display is equally generic and conventional or otherwise held to be abstract. *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.

Viewed as a whole, Appellants' method claims simply recite the concept of sales as performed by a generic computer. To be sure, the claims recite doing so by advising one to assign products to various tiers and decide which products to sell based on rules applied to those tiers. But this is no more than abstract conceptual advice on the parameters for such sales decisions and the generic computer processes necessary to process those parameters, and do not recite any particular implementation.

The method claims do not, for example, purport to improve the functioning of the computer itself. Nor do they effect an improvement in any other technology or technical field. The 19 pages of Specification do not bulge with disclosure, but only spell out different generic equipment³ and parameters that might be applied using this concept and the particular steps such conventional processing would entail based on the concept of sales under different scenarios. They do not describe any particular improvement in the manner a computer functions. Instead, the claims at issue amount to nothing significantly more than an instruction to apply the abstract idea of sales using some unspecified, generic computer. Under our precedents, that is not enough to transform an abstract idea into a patent-eligible invention. *See Alice Corp. Pty. Ltd.* at 2360.

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

³ Specification 18:10–19 describing generic computer equipment.

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 Corp. Pty. Ltd. at 2360.

We adopt the Examiner’s determinations from Final Action 3–4 and Answer 4–12 and reach similar legal conclusions. We turn now to the Reply Brief arguments.

We are not persuaded by Appellants’ argument that the claims are directed to more than selling products. Appellants contend that independent claim 1 “recites specific, detailed steps for selecting which products from a plurality of products to fill a predetermined number of slots on display on a webpage.” Reply Br. 6. The steps in claim 1 are specific only in the sense they are specified using words. The steps are the most generalized data processing operations of storing data in data structures, applying decision criteria to the data, and displaying the data according to the decision outcomes.

Affinity also objects to the magistrate judge’s conclusion that the claims merely set forth “routine and generic processing and storing capabilities of computers generally.” Yet the claim terms to which the magistrate judge referred, such as a “network based media management system” and a “graphical user interface,” are simply generic descriptions of well-known computer components. . . . Affinity makes no claim that it invented any of those components or their basic functions, nor does it suggest that those components, at that level of generality, were unknown in the art as of the priority date of the ’085 patent.

Affinity Labs of Texas, LLC v. Amazon.com Inc., 838 F.3d 1266, 1270 (2016)

We are not persuaded by Appellants’ argument that the claims are analogous to those in *Enfish*, 822 F.3d 1327 (Fed. Cir. 2016). Reply Br. 6–7. In *Enfish*, the claims were “specifically directed to a *self-referential* table for a computer database.” *Id.* at 1337. The claims thus were “directed to a specific improvement to the way computers operate” rather than an abstract idea implemented on a computer. *Id.* at 1336. Here, by contrast, the claims are not directed to an improvement in the way computers operate. Though the claims purport to accelerate the process of selecting products for sale, our reviewing court has held that speed and accuracy increases stemming from the ordinary capabilities of a general purpose computer “do[] not materially alter the patent eligibility of the claimed subject matter.” *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can. (U.S.)*, 687 F.3d 1266, 1278 (Fed. Cir. 2012). Instead, the claims are more analogous to those in *FairWarning*, wherein claims reciting “a few possible rules to analyze audit log data” were found directed to an abstract idea because they asked “the same questions (though perhaps phrased with different words) that humans in analogous situations detecting fraud have asked for decades.” *Fairwarning*, 839 F.3d at 1094, 1095.

Appellants also attempt to analogize the claims to those involved in *McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299 (Fed. Cir. 2016). Reply Br. 7–8. In *McRO*, the court held that, although the processes were previously performed by humans, “the traditional process

and newly claimed method . . . produced . . . results in fundamentally different ways.” *FairWarning*, 839 F.3d at 1094 (differentiating the claims at issue from those in *McRO*). In *McRO*, “it was the incorporation of the claimed rules for the process of creating animation, not the use of the computer, that improved the existing technology process,” because the prior process performed by humans “was driven by subjective determinations rather than specific, limited mathematical rules.” 837 F.3d at 1314 (internal quotation marks, citation, and alterations omitted). In contrast, the claims of the instant application merely implement an old practice of using decision criteria in making sales decisions in a new environment. Appellants have not argued that the claimed processes of selecting products apply rules of selection in a manner technologically different from those which humans used, albeit with less efficiency, before the invention was claimed. Merely pigeon holing the objects of decision making in tiers to aid decision making is both old and itself abstract.

We are not persuaded by Appellants' argument that “the claims in the present application use computer technology to provide improvements to another technology or technical field of online retail systems.” *See* Reply Br. 9–10. The test is not whether there is an improvement to a technical field, but whether there is a technological improvement. The use of computer technology per se is insufficient to convert an abstract idea into something non-abstract.

We conclude that the limitations of the '545 claims do not transform the abstract idea that they recite into patent-eligible subject matter because the claims simply instruct the practitioner to implement the abstract idea with routine,

conventional activity. . . . Adding routine additional steps such as updating an activity log, requiring a request from the consumer to view the ad, restrictions on public access, and use of the Internet does not transform an otherwise abstract idea into patent-eligible subject matter. Instead, the claimed sequence of steps comprises only “conventional steps, specified at a high level of generality,” which is insufficient to supply an “inventive concept.”

Ultramercial, Inc. v. Hulu, LLC, 772 F.3d 709, 715 (2014).

CONCLUSIONS OF LAW

The rejection of claims 1–4 and 7–15 under 35 U.S.C. § 101 as directed to non–statutory subject matter is proper.

DECISION

The rejection of claims 1–4 and 7–15 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