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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DAVID SELINGER, TYLER KOHN, MICHAEL DECOURCEY, SUNDEEP AHUJA, JAMES OSIAL, and ALBERT SUNWOO

Appeal 2018-007263
Application 12/012,452
Technology Center 3600

Before HUBERT C. LORIN, ANTON W. FETTING, and BIBHU R. MOHANTY, *Administrative Patent Judges*.

FETTING, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE[1]

Pursuant to 35 U.S.C. § 134(a), Appellant[2] appeals from the Examiner's decision to reject claims 1–6 and 8–20. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

Appellant invented a way of providing targeted content, such as advertising, by analyzing the context in which the content is to be provided in light of known attributes of the content available to be provided and the one or more recipients of the content. 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 computer-implemented process comprising:

[1] obtaining, by a configured computer system, a rule set
that includes rules for use in identifying non-competitive advertisements;

[2] generating, by the configured computer system, a selection model

based on product data and user-specific data,

wherein the selection model includes a plurality of data sets identifying relationships between products;

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[1] Our decision will make reference to the Appellant's Appeal Brief ("Appeal Br.," filed October 5, 2017) and Reply Brief ("Reply Br.," filed June 1, 2018), and the Examiner's Answer ("Ans.," mailed April 4, 2018), and Final Action ("Final Act.," mailed January 24, 2017).

[2] 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 RichRelevance, Inc. Appeal Br. 2.

[3] generating, by the configured computer system, a user model

using the user-specific data,

wherein the user-specific data

includes user-specific identification data for a specific user

and

includes user-specific activity data regarding user behavior of the specific user that involves interactions with a specific retailer;

[4] using, by the configured computer system, the rule set and the selection model and the user model

to select non-competitive personalized electronic advertising to present to the specific user from a plurality of competitive and non-competitive advertisements,

including using a weighted scoring system identifying correlations between the user-specific activity data

and

using the rule set to identify advertisements not competitive to the specific retailer;

[5] transmitting, by the configured computer system and over one or more computer networks to a client device of the specific user, information about the selected non-competitive personalized electronic advertising,

to cause display of the transmitted information to the specific user on the client device as part of a displayed Web page from the specific retailer that includes additional information, and to allow the specific user to initiate further activities with the specific retailer based on interactions with the displayed Web page;

[6] obtaining, by the configured computer system and from the interactions of the specific user with the displayed Web page, additional information about the further activities initiated by the specific user;

and

> [7] modifying, by the configured computer system and based at least in part on the obtained additional information, one or more weights used in the weighted scoring system, for use in later selection of additional non-competitive personalized electronic advertising for the specific user.

Claims 1–6 and 8–20 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 1[3]

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

[3] For continuity of analysis, we adopt the steps nomenclature from 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) ("Revised Guidance").

> 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. v. CLS Bank Int'l, 573 U.S. 208, 217–18 (2014) (citations omitted) (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 the 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, 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

At a high level, and for our preliminary analysis, we note that method claim 1 recites obtaining rule set data, generating data representing two models based on other data, using the data to select advertising, using a weighted system and data, transmitting information about the advertising,

obtaining additional information, and modifying weight data. Obtaining data is receiving data. Selecting data using a weighted system and data is rudimentary data analysis. Thus, claim 1 recites receiving, generating, analyzing, transmitting, and modifying 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 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 commercial or legal interactions. Like those concepts, claim 1 recites the concept of selecting advertisements. Specifically, claim 1 recites operations that would ordinarily take place in advising one to use weights to modify data values

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[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).

applied to decision criteria used to select and present an ad. The advice to use weights to modify data values applied to decision criteria used to select and present an ad involves presenting 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 "transmitting . . . information about the selected non-competitive personalized electronic advertising," which is an activity that would take place whenever one is presenting an ad. Similarly, claim 1 recites "select non-competitive personalized electronic advertising," which is also characteristic of managing advertising.

The Examiner determines the claims to be directed to selecting and targeting personalized non-competitive advertising. Final Act. 3.

The preamble to claim 1 does not recite what it is to achieve, but the steps in claim 1 result in selecting advertisements by using weights to modify data values applied to decision criteria used to select and present an ad absent any technological mechanism other than a conventional computer for doing so.

As to the specific limitations, limitations 1 and 6 recite receiving data. Limitations 2–5 and 7 recite generic and conventional generating, analyzing, transmitting, and modifying of advertising selection data, which advise one to apply generic functions to get to these results. The limitations thus recite advice for using weights to modify data values applied to decision criteria used to select and present an ad. To advocate using weights to modify data values applied to decision criteria used to select and present an ad is conceptual advice for results desired and not technological operations.

The Specification at paragraph 1 describes the invention as relating to providing targeted content, such as advertising, by analyzing the context in

which the content is to be provided in light of known attributes of the content available to be provided and the one or more recipients of the content. Thus, all this intrinsic evidence shows that claim 1 recites selecting advertisements. 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 selecting advertisements is a technique for eliciting consumer buying behavior. The concept of selecting advertisements by using weights to modify data values applied to decision criteria used to select and present an ad is one idea for how to conceptually make such a selection. 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. *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014)(advertising).

From this we conclude that at least to this degree, claim 1 recites selecting advertisements by using weights to modify data values applied to decision criteria used to select and present an ad, 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]

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

> 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 6 are pure data gathering steps. Limitations describing the nature of the data do not alter this. Steps 2–4 recite basic conventional data operations such as generating, updating, and storing data. Step 5 recites insignificant activity, such as storing, transmitting, or displaying the results. Steps 2–4 and 7 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, Appellant's claim 1 simply recites the concept of selecting advertisements by using weights to modify data values applied to decision criteria used to select and present an ad 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 Specification only spells out different generic equipment[8] and parameters that might be applied using this concept and the particular steps such conventional processing would entail based on the concept of selecting advertisements by using weights to modify data values applied to decision criteria used to select and present an ad under different scenarios. It does 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 advertisements by using weights to modify data values applied to decision criteria used to select and present an ad 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

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[8] The Specification describes a PC based implementation of a central control processing system. Spec. para. 138.

a 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 advertisements by advising one to use weights to modify data values applied to decision criteria used to select and present an ad, 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, generating, analyzing, transmitting, and modifying data amounts to electronic data query and retrieval—one of the most basic functions of a computer. The limitation within limitation 5 of causing display of the transmitted information is not a step, but a recitation of what is hoped to occur after the recited transmission step, *viz*. a desire, which is aspiration rather than functional. All of these computer functions are generic, routine, conventional computer activities that are performed only for their conventional uses. *See Elec. Power Grp. LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016). Also s*ee In re Katz Interactive Call Processing Patent Litig.*, 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 is 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 America, Inc. v. InvestPic LLC*, 898 F.3d 1161, 1168 (Fed. Cir. 2018).

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-generation-analysis-transmission-modification is equally generic and conventional. *See Ultramercial*, 772 F.3d at 715 (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 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 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. 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 advertisements by advising one to use weights to modify data values applied to decision criteria used to select and present an ad, without significantly more.

APPELLANT'S ARGUMENTS

As to Appellant's Appeal Brief arguments, we adopt the Examiner's determinations and analysis from Final Action 2–4 and Answer 3–8 and reach similar legal conclusions. We now turn to the Reply Brief.

Appellant attempts 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. 4–8. 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 IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1094 (Fed. Cir. 2016) (differentiating the claims at issue from those in *McRO*). In *McRO*,

"it [was] the incorporation of the claimed rules, 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 advertising decisions in a new environment. Appellant has not argued that the claimed processes of selecting ads 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 to aid decision making is both old and itself abstract.

> The claims in *McRO* were not directed to an abstract idea, but instead were directed to "a specific asserted improvement in computer animation, i.e., the automatic use of rules of a particular type." We explained that "the claimed improvement [was] allowing computers to produce 'accurate and realistic lip synchronization and facial expressions in animated characters' that previously could only be produced by human animators." The claimed rules in *McRO* transformed a traditionally subjective process performed by human artists into a mathematically automated process executed on computers.

FairWarning, 839 F.3d at 1094.

Appellant further argues that the asserted claims are akin to the claims found patent-eligible in *Core Wireless Licensing S.A.R.L. v. LG Electronics, Inc.*, 880 F.3d 1356 (Fed. Cir. 2018). Reply Br. 8–12. But the Court in *Trading Techs. Int'l, Inc. v. IBG LLC* addressed Appellant's *Core Wireless* argument.

> Relying principally on [*Core Wireless*], TT argues the claimed invention provides an improvement in the way a computer

> operates. We do not agree. The claims of the '999 patent do not improve the functioning of the computer, make it operate more efficiently, or solve any technological problem. Instead, they recite a purportedly new arrangement of generic information that assists traders in processing information more quickly.

Trading Techs. Int'l, Inc. v. IBG LLC, 921 F.3d 1084,1093 (Fed. Cir. 2019) (citations omitted). The instant claims do not improve the functioning of the computer, make it operate more efficiently, or solve any technological problem. Instead, they recite a purportedly new arrangement of generic information that assists users in processing information more quickly.

We are not persuaded by Appellant's argument that the claims "relate to automated operations performed to improve system operation over time by learning modified weighting data based on user interactions with displayed information, to allow more efficient subsequent related activities." Reply Br. 12–16. None of the claims recite learning. The Specification, particularly at paragraph 75, uses the word learning as a synonym for storing. No learning algorithms are described in the Specification. Thus, the argument devolves to using acquired (learned) data to further refine the data domain being analyzed. This is the very essence of conventional data processing. We are not persuaded by Appellant's argument that

> the recited claim language of independent claim 1 includes specific operations to implement such activities that go far beyond that general idea. Instead, . . . , the actual recited language of independent claim 1 includes improving the automated operations of computing systems by using rules to select products that are relevant for a specific user in a specific setting in specific manners, by modifying a graphical user interface to include the formatted information and to improve the relevance of information displayed to a user, and by automatically improving the operation of the system over time by learning modified weighting to use in future automated

activities based on user interactions with the modified graphical user interface

Reply Br. 16. As determined *supra*, all of the specific operations are conventional data processing operations. Using rules to select products is an example of conventional criteria based selection. Modifying a web based interface is conventional insertion of text describing fields into the HTML code used to generate the screen. Improving performance by altering weights used in selection is conventional use of stored data in search criteria.

We are not persuaded by Appellant's argument that the components cannot be shown to be conventional. Reply Br. 17–18. Such showing is provided *supra*, under Step 2B.

CONCLUSIONS OF LAW

The rejection of claims 1–6 and 8–20 under 35 U.S.C. § 101 as directed to a judicial exception without significantly more is proper.

CONCLUSION

The rejection of claims 1–6 and 8–20 is affirmed.

In summary:

Claims Rejected	35 U.S.C. §	Basis	Affirmed	Reversed
1–6, 8–20	101	Eligibility	1–6, 8–20	

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