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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MIKE FIELDS, ROBERT T. TREFZGER,
RAMAKRISHNA DUVVURI, and TIM G. SANIDAS

Appeal 2018-000035
Application 14/012,586¹
Technology Center 3600

Before CARLA M. KRIVAK, ADAM J. PYONIN, and
DAVID J. CUTITTA II, *Administrative Patent Judges*.

CUTITTA, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants seek our review under 35 U.S.C. § 134(a) of the Examiner's decision rejecting claims 1 and 4–13, which are all the claims pending in the application.² We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ Appellants identify State Farm Mutual Automobile Insurance Company as the real party in interest. *See* Appeal Br. 2.

² Claims 2 and 3 are cancelled. *See* Appeal Br. 16.

STATEMENT OF THE CASE

Invention

Appellants' invention relates to "automatically providing customized pricing and product information based on limited personal data." Spec. 1.³

Exemplary Claim

Claims 1, 5, 6, 7, and 8 are independent. Claim 1 is exemplary and is reproduced below with bracketed material added.

1. A computer implemented method of distributing over the Internet from a server to a remote user interface device quantitative information based on limited prospective customer personal data, the computer implemented method comprising:

[a] providing an interactive website interface from the server to the remote user interface device, which allows a remote user to input non-identifying prospective insurance customer information comprising: demographic information; location information; and property information;

[b] receiving, at the server and transmitted over the Internet from the remote user interface device, the non-identifying prospective insurance customer information;

[c] automatically identifying, by a processor, a comparable segment of existing customers based on the non-identifying demographic information, the non-identifying location information, and the non-identifying information about the property of the prospective customer;

³ Our Decision refers to: (1) Appellants' Specification filed August 28, 2013 ("Spec."); (2) the Final Rejection mailed November 2, 2016 ("Final Act."); (3) the Appeal Brief filed March 20, 2017 ("Appeal Br."); (4) the Examiner's Answer mailed July 28, 2017 ("Ans."); and (5) the Reply Brief filed September 28, 2017 ("Reply Br.").

[d] automatically executing, by the processor, a predictive model developed from information regarding existing customers in the comparable segment of existing customers to determine a quantitative product-related parameter for delivery to the prospective customer;

[e] generating, by the processor, displayable content comprising the determined quantitative product-related parameter, wherein the displayable content is communicated from the processor to the server;

[f] transmitting the displayable content over the Internet from the server to the remote user interface device; and

[g] displaying the displayable content on the remote user interface device, wherein the displayable content comprises the quantitative policy-related parameters and hyperlinks, wherein the hyperlinks allow the remote user to navigate the interactive website to allow the prospective customer to obtain an online quote.

Appeal Br. 16.

REJECTION

Claims 1 and 4–13 stand rejected under 35 U.S.C. § 101 as being directed to non-patent-eligible subject matter. *See* Final Act. 3–8.

Our review in this appeal is limited to the above rejection and the issues raised by Appellants. Arguments not made are waived. *See* 37 C.F.R. § 41.37(c)(1)(iv)(2016).

Principles of Law

An invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. However, the Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: “[l]aws of nature, natural phenomena, and abstract

ideas” are not patentable. *E.g.*, *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014).

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

Concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 69 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as “molding rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 192 (1981)); “tanning, dyeing, making waterproof cloth, vulcanizing India rubber, smelting ores” (*id.* at 184 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1854))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))). In *Diehr*, the claim at issue recited a mathematical formula, but the Supreme Court held that “[a] claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula.” *Diehr*, 450

U.S. at 176; *see also id.* at 192 (“We view respondents’ claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula.”). Having said that, the Supreme Court also indicated that a claim “seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, . . . and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment.” *Id.* (citing *Benson and Flook*); *see, e.g., id.* at 187 (“It is now commonplace that an application of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.”).

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

USPTO January 7, 2019 Revised Section 101 Memorandum

The USPTO recently published revised guidance on the application of § 101. *See* 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019 (“Memorandum”). Under the Memorandum guidance, we first look to whether the claim recites:

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

(2) additional elements that integrate the judicial exception into a practical application (see MPEP § 2106.05(a)–(c), (e)–(h)).

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look to whether the claim:

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

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

ANALYSIS

Appellants argue the claims as a group. *See* Appeal Br. 13. We select independent claim 1 as exemplary of the group. *See* 37 C.F.R. § 41.37(c)(1)(iv)(2016).

The Examiner determines claim 1 “recites a method of providing quantitative information based on limited prospective customer personal data,” and, thus, “relate[s] to one of the concepts identified as abstract ideas by the courts.” Final Act. 4; *see* Ans. 3–12. The Examiner also determines the claim does “not amount to significantly more than the abstract idea” Final Act. 5; *see* Ans. 12–15.

Appellants present several arguments against the § 101 rejection. We do not find Appellants' arguments persuasive, as discussed in greater detail below. The Examiner has provided a comprehensive response to Appellants' argument supported by a preponderance of evidence. *See* Ans. 3–18. Thus, we adopt the Examiner's findings and conclusions. *See* Final Act. 3–8; Ans. 3–18. We analyze the claim under the 2019 Revised § 101 Guidance and adopt the nomenclature for the steps used in the Memorandum.

STEP 1

Section 101 provides that “[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 35 U.S.C. § 101. Initially, the Examiner determines, and we agree, that independent claim 1 recites steps for a process. *See* Final Act. 4. As such, claim 1 is directed to a statutory class of invention within 35 U.S.C. § 101, i.e., a process.

STEP 2A Prong 1

Under Step 2A, Prong 1 of the Memorandum, we must determine whether claim 1, being directed to a statutory class of invention, nonetheless falls within a judicial exception.

The Examiner determines claim 1's “process describes the concepts which relate to one of the concepts identified as abstract ideas by the courts, such as using categories to organize, store and transmit information

(*Cyberfone*⁴) or collecting and comparing known information (*Classen*⁵)” and therefore “is directed to an abstract idea.” Final Act. 4.

Appellants argue that claim 1 “is clearly *directed to* identifying a comparable segment of existing customers, executing a predictive model to determine a quantitative product-related parameter, and displaying the quantitative policy-related parameters and hyperlink” and, thus, is not abstract. Appeal Br. 11.

We find Appellants’ argument unpersuasive. The preamble to claim 1 recites that it is a “computer implemented method of distributing . . . quantitative information based on limited prospective customer personal data.” Appeal Br. 16. The steps in claim 1 recite: (a) providing a website interface that allows a user to input non-identifying prospective insurance customer information; (b) receiving the information; (c) identifying a comparable segment of existing customers based on the customer information; (d) executing a model developed from existing customer information to determine a product-related parameter for delivery to the prospective customer; (e) generating displayable content comprising the product-related parameter; (f) transmitting the displayable content, and (g) displaying the displayable content with hyperlinks. *See* Appeal Br. 16.

The Specification, likewise, describes that certain “products, including insurance and other financial products and services, cannot be accurately priced or responsibly suggested until a prospective customer has provided a

⁴ *Cyberfone Sys., LLC v. CNN Interactive Grp.*, 558 Fed. Appx. 988 (Fed. Cir. 2014) (non-precedential).

⁵ *Classen Immunotherapies, Inc. v. Biogen IDEC*, 659 F.3d 1057 (Fed.Cir.2011).

substantial quantity of relevant, personal information.” Spec. 3. “This requirement is a barrier” to sales “because prospective customers are unwilling to invest the time and energy needed to complete the long form or to disclose the personal information.” *Id.* The claimed invention is seemingly intended to address this issue by identifying a comparable segment of existing customers based on limited, non-identifying information from the potential customer and providing the product information based on a predictive model developed using stored information of the comparable existing customer segment.

Considered in light of the Specification, the purported advance over the prior art is, thus, a way of providing quantitative product information to a potential customer based on limited non-identifying customer data by identifying similar existing customers and using the existing customer data to determine the quantitative product information. In that context, claim 1 is directed to: (1) collecting and analyzing limited non-identifying information of a potential customer to identify similar existing customers (steps (a), (b), (c)); (2) calculating quantitative product information for the potential customer based on information stored about the identified similar existing customers (step (d)); (3) generating, transmitting, and displaying the displayable content comprising the calculating quantitative product information with hyperlinks (steps (e), (f), (g)) — in other words, to a form of targeted advertising, which is a method of organizing human activity and, therefore, an abstract idea.

Additionally, we note that the claimed method is an example of concepts performed in the human mind as mental processes because the steps of receiving, analyzing, modifying, and displaying data mimic human

thought processes, perhaps with paper and pencil. *See Bancorp Services, L.L.C. v. Sun Life Assur. Co. of Canada (U.S.)*, 687 F.3d 1266, 1278 (Fed. Cir. 2012), cert. denied, 134 S. Ct. 2870 (2014) (“[T]he fact that the required calculations could be performed more efficiently via a computer does not materially alter the patent eligibility of the claimed subject matter.”); *see also* Memorandum n.14 (citing *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1318 (Fed. Cir. 2016) (“[W]ith the exception of generic computer-implemented steps, there is nothing in the claims themselves that foreclose them from being performed by a human, mentally or with pen and paper.”). We observe that several other Federal Circuit cases have found claims that simply collect, manipulate, and display data, like Appellants’ claim 1, are directed to patent ineligible subject matter. *See, e.g., Electric Power Grp. v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016) (collection, manipulation, and display of data); *Content Extraction and Transmission LLC v. Wells Fargo Bank, National Ass’n*, 776 F.3d 1343, 1347 (Fed. Cir. 2014) (“collecting data, . . . recognizing certain data within the collected data set, and . . . storing that recognized data in a memory.”).

From this we conclude that claim 1 recites either a method of organizing human activity or a mental process, or both, as provided for in the Memorandum.

STEP 2A Prong 2

Next, we determine whether the claim is directed to the abstract 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. *See, e.g., Alice*, 573 U.S. at 223, discussing *Diehr*, 450 U.S. at 175.

Applying step 2 of the *Alice/Mayo* analysis, the Examiner concludes claim 1 does not recite:

improvements to another technology or technical field; improvements to the functioning of the computer itself; applying the judicial exception with, or by use of, a particular machine; effecting a transformation or reduction of a particular article to a different state or thing; adding a specific limitation other than what is well-understood, routine and conventional in the field, or adding unconventional steps that confine the claim to a particular useful application; or other meaningful limitations beyond generally linking the use of the judicial exception to a particular technological environment.

Ans. 14.

We agree with the Examiner. The mere introduction of a computer or generic computer technology into the claim need not alter the analysis. *See Alice*, 573 U.S. at 223–24. “[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. We determine claim 1 does not. Viewed as a whole, Appellants’ method claim simply recites the abstract idea of providing quantitative insurance product information to a potential customer based on non-identifying customer information by identifying similar existing customers and using the existing customer data to determine the quantitative insurance product information, as performed by a generic computer processor. To be sure, the claims recite doing so by providing an interactive website interface to receive the non-identifying customer information, automatically executing a predictive model developed from information regarding existing customers, generating displayable

content, transmitting the displayable content, and displaying the content with hyperlinks to allow the prospective customer to obtain an online quote. But this is no more than abstract conceptual advice on the parameters for such insurance data generation and the generic computer processes necessary to process those parameters, and does not recite any particular implementation.

Claim 1, thus, simply recites an abstract idea executed using generic computer technology, such as “a server,” “a remote user interface device,” and “a processor” of a generic computer. Appeal Br. 16. Moreover, because claim 1 fails to recite a specific algorithm for automatically identifying “a comparable segment of existing customers based on the non-identifying demographic information,” the broadly recited “identifying” can be interpreted as being executed based merely on a subjective judgement of a similarity between the existing customer data and the prospective customer data, rather than on specific technological implementation details. To identify similar data based on subjective judgement is *not* a technological operation.

In view of Appellants’ Specification, and consistent with the Examiner’s determinations, we conclude that claim 1 does not integrate the judicial exception into a practical application. We, thus, agree with the Examiner that claim 1 is *directed to* a judicial exception.

Appellants argue claim 1, similar to the claims in *McRO*, “is focused on a specific asserted improvement in computer identification of comparable customers and determination of products, i.e., the automatic use of rules of a particular type.” Reply Br. 3 (citing *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299 (Fed. Cir. 2016)). This argument is unpersuasive because Appellants’ claim 1 is unlike the claims in *McRO*. The patent at

issue in *McRO* describes that, prior to the claimed invention, character animation and lip synchronization were accomplished by human animators, with the assistance of a computer, and involved the use of a so-called “keyframe” approach in which animators set appropriate parameters, i.e., morph weights, at certain important times, i.e., in order to produce accurate and realistic lip synchronization and facial expressions. *McRO*, 837 F.3d. at 1305. Animators knew what phoneme a character pronounced at a given time from a time-aligned phonetic transcription (a “timed transcript”). *Id.* In accordance with the prior technique, animators, using a computer, thus, manually determined the appropriate morph weight sets for each keyframe based on the phoneme timings in the timed transcript. *Id.*

Thus, in *McRO*, the improvement in computer animation was realized by using “rules, rather than artists [i.e., human animators], to set the morph weights and transitions between phonemes” (*id.* at 1313 (citation omitted)), i.e., in *McRO*, the invention used “rules to automatically set a keyframe at the correct point to depict more realistic speech, achieving results similar to those previously achieved manually by animators.” *Id.* at 1307. The rules in *McRO*, thus, allowed the *computer* to produce accurate and realistic synchronization in animated characters that could only previously be produced by humans.

Appellants argue that their claim, similar to those in *McRO*, “recites a specific set of rules directed to identifying a comparable segment of existing customers, executing a predictive model to determine a quantitative product-related parameter, and displaying the quantitative parameters and hyperlinks.” Reply Br. 4. However, Appellants do not identify *any* specific rules in the claim that enable the computer to identify a comparable segment

of existing customers, let alone identify specific rules that act in the same way as the specific rules enabling the computer in *McRO* to generate the computer animated characters. We, therefore, find no evidence of record to support the argument that the present situation is similar to the one in *McRO*, where computers were unable to make certain subjective determinations, i.e., regarding morph weight and phoneme timings, which could only be made prior to the claimed invention by human animators.

Claim 1 is not directed to a specific asserted improvement in computer technological implementation or otherwise integrated into a practical application and, thus, is directed to a judicial exception.

STEP 2B

Next, we determine whether the claim includes additional elements that provide significantly more than the recited judicial exception, thereby providing an inventive concept. *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 566 U.S. at 72–73).

The Examiner determines the “additional limitations of the claim includes [sic] an interactive website interface, a server, a remote user interface device, and a processor.” Final Act. 4. Specifically, the Examiner determines:

The interactive website interface is recited at a high level of generality with the only required function of input the information, which is a well-known routine function of interfaces. The server and the remote user interface device are recited at a high level of generality with the required functions of receiving the customer information and transmitting the displayable content over the Internet. Thus, the server and the remote user interface device perform the functions of nothing more than the generic computer functions of receiving or

transmitting data over a network, e.g., using the Internet to gather data. The processor is also recited at a high level of generality with the required function of identifying information, executing a predictive model to determine a quantitative product-related parameter and generate the displayable content

Final Act. 4–5.

We agree with the Examiner’s findings. Taking the claim elements separately, the functions performed by the computer processor at each step of the method are purely conventional. Using a server computer for providing an interactive website interface, receiving data at the server from another device, processing data using a processor, and transmitting and displaying certain results, 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*, 830 F.3d at 1354 (the “focus of the asserted claims . . . is on collecting information, analyzing it, and displaying certain results of the collection and analysis,”); *see also 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 an unconventional manner nor do any produce an unexpected result. Appellants do not contend they have invented any of these activities. In short, each step does no more than require a generic computer server to perform generic computer functions. Spec. 21 (“Computer 110 may be any type of general purpose or specialized computer system. . . . CPU 101 may be any general purpose processor”); *see also*

Spec. 22–23. 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 Appellants’ method claim add nothing that is not already present when the steps are considered separately. The sequence of data reception—analysis—modification, and transmission 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. We, thus, conclude that the claim does not provide an inventive concept because the additional elements recited in the claim do not provide significantly more than the recited judicial exception.

Appellants argue that the Examiner “never analyzed all the limitations as an ordered combination, which requires analysis of both the ‘additional limitations’ and the claim limitations mischaracterized as ‘abstract idea.’”
Appeal Br. 12.

We find this argument unpersuasive of error because the Examiner does consider all of the limitations in the analysis of claim 1. *See* Final Act. 4–5; Ans. 4–10. Furthermore, Appellants merely argue, but fail to provide persuasive evidence, that the Examiner mischaracterized any particular limitation as an abstract idea or failed to consider any specific limitation.

DECISION

We affirm the Examiner’s rejection of claims 1 and 4–13 under 35 U.S.C. § 101.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED