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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte CHRISTOPHER PETER DRABBLE and GARY PAUL NOBLE

Appeal 2017–002364
Application 12/016,255
Technology Center 3600

Before MURRIEL E. CRAWFORD, ANTON W. FETTING, and
BIBHU R. MOHANTY, *Administrative Patent Judges*.

FETTING, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE¹

Christopher Peter Drabble and Gary Paul Noble (Appellants) seek
review under 35 U.S.C. § 134 of a final rejection of claims 1, 3, 4, 7, 8, 10–

¹ Our decision will make reference to the Appellants’ Appeal Brief (“App. Br.,” filed April 8, 2016) and Reply Brief (“Reply Br.,” filed November 23, 2016), and the Examiner’s Answer (“Ans.,” mailed September 23, 2016), and Final Action (“Final Act.,” mailed November 18, 2015).

13, and 18–28, 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 publish[ed] and subscribe system in a geofence² environment. Specification 1:2–3.

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 for providing location specific information, said method configured to be implemented in a data processing network, said method comprising:

[1] a processing server of the data processing network receiving subscriptions to topics subscribed to by a plurality of subscribers,

wherein the processing server comprises three distinct data stores consisting of a first data store, a second data store, and a third data store,

wherein first data stored in the first data store consists of a plurality of locations and an associated at least one geofence within which each location stored in the first data store is located interior to each exterior boundary of the at least one geofence,

wherein second data stored in the second data store consists of a plurality of topics and a geofence to which each topic is associated such that each said geofence identified in the second data store is identified in the first data in the first data store in association with a location of the plurality of locations,

² A geofence is a virtual boundary on a geographic region.
<https://wordspy.com/index.php?word=geofence>

wherein third data stored in the third data store consists of a subscriber profile of each subscriber of the plurality of subscribers along with a topic that each subscriber has subscribed to

such that each subscribed to topic is comprised by the plurality of topics in the second data in the second data store, and wherein each geofence has a geometric shape located within a geographic area;

[2] after said receiving subscriptions, said processing server receiving event data pertaining to an event that has occurred,

said event data being received from an event reporting system that has gathered the event data from a data gathering means situated where the event has occurred, wherein the event data comprises location identification data from which a location of the event may be determined and event description data that describes the event;

[3] after said receiving event data, said processing server identifying,

from analysis of the location identification data in the received event data and the first data stored in the first data store,

one or more geofences associated with the location determined from the location identification data;

[4] after said identifying one or more geofences, said processing server identifying,

from analysis of the identified one or more geofences and the second data stored in the second data store,

at least one topic associated with each geofence of the identified one or more geofences;

[5] after said identifying at least one topic associated with each geofence of the identified one or more geofences, said processing server identifying,

from analysis of each identified topic and the third data stored in the third data store,

at least one subscriber of the plurality of subscribers having a subscription to at least one topic associated with a geofence of the identified one or more geofences;

and

[6] after said identifying at least one subscriber, said processing server publishing the event description data across a network to a computer device directly accessed by each subscriber of the identified at least one subscriber.

Claims 1, 3, 4, 7, 8, 10–13, and 18–28 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 a series of telescoping data selections based on several predefined data associations to select which data regarding events to send to subscribers of such services. To the extent claim 1 may be novel and non-obvious, it is only in the choice of data sets and selection criteria. Appellants ask for a patent on what is perhaps a novel set of selection criteria upon which to base data selection and transmission. Any such novelty is outside the scope determining patent eligibility.

Method claim 1 recites receiving subscription and event data, identifying geofence, topic, and subscriber data, and publishing event data. Thus, claim 1 recites receiving, analyzing, modifying, and transmitting data. 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, modification, and transmission are all generic, conventional data processing operations to the point they are themselves concepts awaiting implementation details. The sequence of data reception–analysis–modification–display–transmission is equally generic and conventional. The ordering of the steps is therefore ordinary and conventional. The remaining claims merely describe process parameters, 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 determines the claims to be directed to location based customer service and information look–up. The Examiner further determines that this is accomplished by managing location based topics associated with subscribers and their profile information, identifying when a particular trigger for a topic has occurred based on location information of the subscriber (e.g., when the user has entered the location, general location, geofence, or the like associated with the topic), and informing the subscriber of the specifics of the topic in response to the trigger, which is (i) a fundamental economic practice, (ii) a method of organizing human activities, (iii) an idea of itself, or (iv) a mathematical relationship or formula. Final Act. 2–3.

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 recites that it is a method for providing location specific information. The steps in claim 1 result in publishing event description data across a network absent any technological mechanism other than a conventional computer for doing so. The Specification at 1:2–3 recites that the invention relates to a publish and subscribe system in a geofence environment. Thus, all this evidence shows that claim 1 is directed to providing and publishing information, i.e., publishing. This is consistent with the Examiner’s determination.

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 publishing is a fundamental business practice long prevalent in our system of commerce. The use of publishing is also a building block of ingenuity in information gathering. Thus, publishing, 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 publishing 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 reception, analysis, modification, and transmission and does not recite an improvement to a particular computer technology. *See, e.g., McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314–15 (Fed. Cir. 2016) (finding claims

not abstract because they “focused on a specific asserted improvement in computer animation”). As such, claim 1 is directed to the abstract idea of receiving, analyzing, modifying, and transmitting data.

The remaining claims merely describe process parameters. 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.

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 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 for receiving, analyzing, modifying, and transmitting data amounts to electronic data query and retrieval—one of the most basic functions of a computer. All of these computer functions are well-understood, routine, conventional 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*, 898 F.3d 1161, 1168 (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—modification—display—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.

Viewed as a whole, Appellants’ method claims simply recite the concept of publishing as performed by a generic computer. To be sure, the claims recite doing so by advising one to receive subscription and event data, identify geofence, topic, and subscriber data, and publish event data. But this is no more than abstract conceptual advice on the parameters for such publishing 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 14+ 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 publishing 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 publishing using some unspecified, generic computer.

³ The Specification describes hand held devices and desktop computers. Spec. 6:7–9.

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 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.

As to Appellants’ Appeal Brief arguments, we adopt the Examiner’s determinations and analysis from Final Action 2–21 and Answer 2–31 and reach similar legal conclusions. We now turn to the Reply Brief.

Appellants analogize their claims to those in *McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299 (Fed. Cir. 2016). Reply Br. 2–5. Appellants do so by relating specific limitations to each step in a claim table. These limitations are specific only in the sense they are specified with words. The limitations recite conventional data reads and writes and analysis based on predefined associations. These are the most generic of computer operations. This differs from the claims reciting physical improvements in *McRO*. The instant claims offer no technological implementations and therefore no technological improvements.

Contrary to InvestPic’s contention, the claims here are critically different from those we determined to be patent eligible in *McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299 (Fed. Cir. 2016). The claims in *McRO* were directed to the creation of something physical—namely, the

display of “lip synchronization and facial expressions” of animated characters on screens for viewing by human eyes. *Id.* at 1313. The claimed improvement was to how the physical display operated (to produce better quality images), unlike (what is present here) a claimed improvement in a mathematical technique with no improved display mechanism. The claims in *McRO* thus were not abstract in the sense that is dispositive here. And those claims also avoided being “abstract” in another sense reflected repeatedly in our cases (based on a contrast not with “physical” but with “concrete”): they had the specificity required to transform a claim from one claiming only a result to one claiming a way of achieving it. *McRO*, 837 F.3d at 1314; *see Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299, 1305–06 (Fed. Cir. 2018); *1168 *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1241 (Fed. Cir. 2016); *Affinity Labs of Texas, LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1265 (Fed. Cir. 2016); *see also Two-Way Media*, 874 F.3d at 1337; *Secured Mail Solutions LLC v. Universal Wilde, Inc.*, 873 F.3d 905, 909 (Fed. Cir. 2017); *RecogniCorp*, 855 F.3d at 1326; *Symantec*, 838 F.3d at 1316.

SAP America v. Investpic, 898 F.3d 1161, 1167–1168 (Fed. Cir. 2018). In contrast, the claims of the instant application merely implement an old practice of using decision criteria in making content decisions in a new environment. Appellants have not argued that the claimed processes of selecting content do so in a manner technologically different from those which humans used, albeit with less efficiency, before the invention was claimed. Merely using particular subsets of geographic and interest matching for the objects of decision making to aid decision making is both old and itself abstract.

We are not persuaded by Appellants' argument that “there is no nexus in the claims between the provision of services and parameters of the economy.” Reply Br. 5–6. The Examiner perhaps might have better

referred to business than the economy, but the principle remains that publishing data is a vital part of the market economy.

We are not persuaded by Appellants' argument that “there is no disclosure in independent claims 1, 19 and 20 that the subscribers wish to be notified about particular events, since the subscribers subscribe to topics and not to events.” Reply Br. 6–7. A plain reading of claim 1 shows that subscribers receive event data. The fact that they subscribe to receive this data implies a desire to do so.

We are not persuaded by Appellants' argument that the subscribers are not being monitored. Reply Br. 14. Although we agree that the subscribers are not being monitored, this is harmless error as the issue is whether the claims are directed to a fundamental economic or business practice. We determined they are, *supra*.

We are not persuaded by Appellants' argument that “the claims are totally silent as to customers.” Reply Br. 15. The claims recite subscribers, which are a species of the genus customer.

We are not persuaded by Appellants' argument that “claims 1, 19 and 20 improve the technology of providing location specific information.” Reply Br. 18. Appellants goes on to contend this is evidenced by the prior appeal determining the claims to be non-obvious. *Id.* This conflates obviousness with eligibility. “A claim for a new abstract idea is still an abstract idea. The search for a § 101 inventive concept is thus distinct from demonstrating § 102 novelty.” *Synopsys, Inc. v. Mentor Graphics Corporation*, 839 F.3d 1138, 1151 (Fed. Cir. 2016).

We are not persuaded by Appellants' argument that “it is logically impossible for the claims to be both (i) novel and unobvious over the prior art and (ii) well-understood, routine and conventional in the field of the claimed invention.” Br. 20. It is only the data operated upon that may be non-obvious. As determined supra, data reads and writes are primitive computer operations and therefore conventional. *SAP America Inc.*, supra, holds that the nature of the data cannot render a claim non-abstract.

We are not persuaded by Appellants' argument that the claims recite significantly more and do not preempt. Br. 20–23. The claims do not recite a technological solution to a technological problem.

Unlike the claim in Content Extraction, claim 1 of the '065 patent depends upon a specific enhancing limitation that necessarily incorporates the invention's distributed architecture—an architecture providing a technological solution to a technological problem. This provides the requisite ‘something more’ than the performance of “well-understood, routine, [and] conventional activities previously known to the industry.”

Amdocs (Israel) Ltd. v. Openet Telecom, Inc., 841 F.3d 1288, 1301 (Fed. Cir. 2016)

As to preemption, “Where a patent's claims are deemed only to disclose patent ineligible subject matter under the *Mayo* 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).

Appellants further argue that the asserted claims are akin to the claims found patent-eligible in *DDR Holdings, LLC v. Hotels.com, L.P.* 773 F.3d 1245 (Fed. Cir. 2014). Reply Br. 24–25. In *DDR Holdings*, the Court evaluated the eligibility of claims “address[ing] the problem of

retaining website visitors that, if adhering to the routine, conventional functioning of Internet hyperlink protocol, would be instantly transported away from a host’s website after ‘clicking’ on an advertisement and activating a hyperlink.” *Id.* at 1257. There, the Court found that the claims were patent eligible because they transformed the manner in which a hyperlink typically functions to resolve a problem that had no “pre-Internet analog.” *Id.* at 1258. The Court cautioned, however, “that not all claims purporting to address Internet-centric challenges are eligible for patent.” *Id.* For example, in *DDR Holdings* the Court distinguished the patent-eligible claims at issue from claims found patent-ineligible in *Ultramercial*. *See id.* at 1258–59 (citing *Ultramercial*, 772 F.3d 709, 715–16 (Fed. Cir. 2014)). As noted there, the *Ultramercial* claims were “directed to a specific method of advertising and content distribution that was previously unknown and never employed on the Internet before.” *Id.* at 1258 (quoting *Ultramercial*, 772 F.3d at 715–16). Nevertheless, those claims were patent ineligible because they “merely recite[d] the abstract idea of ‘offering media content in exchange for viewing an advertisement,’ along with ‘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.’” *Id.*

Appellants’ asserted claims are analogous to claims found ineligible in *Ultramercial* and distinct from claims found eligible in *DDR Holdings*. The ineligible claims in *Ultramercial* recited “providing [a] media product for sale at an Internet website;” “restricting general public access to said media product;” “receiving from the consumer a request to view [a] sponsor message;” and “if the sponsor message is an interactive message,

presenting at least one query to the consumer and allowing said consumer access to said media product after receiving a response to said at least one query.” 772 F.3d at 712. Similarly, Appellants’ asserted claims recite receiving, analyzing, modifying, and transmitting data. This is precisely the type of Internet activity found ineligible in *Ultramercial*.

We are not persuaded by Appellants' argument that “claims 27 and 28 specify that the data gathering means for gathering the event data is special purpose hardware, namely a camera, a speed sensor apparatus, a RFID reader, or a GPS device.” Reply Br. 26–28. These components are used only for their conventional purpose.

Turning to the second step in our analysis, we find that the claims fail to recite any elements that individually or as an ordered combination transform the abstract idea of classifying and storing digital images in an organized manner into a patent-eligible application of that idea. It is well-settled that mere recitation of concrete, tangible components is insufficient to confer patent eligibility to an otherwise abstract idea. Rather, the components must involve more than performance of 'well-understood, routine, conventional activit[ies]' previously known to the industry." *Alice*, 134 S. Ct. at 2359 (quoting *Mayo*, 132 S.Ct. at 1294). We agree with the district court that the claims' recitation of a "telephone unit," a "server", an "image analysis unit," and a "control unit" fail to add an inventive concept sufficient to bring the abstract idea into the realm of patentability.

As an initial matter, TLI argues that, even if known in the prior art, the components recited in the claims cannot be "conventional" within the meaning of the *Alice* absent fact-finding by the court. While we must be mindful of extraneous fact finding outside the record, particularly at the motion *614 to dismiss stage, here we need to only look to the specification, which describes the telephone unit and server as either performing basic computer functions such as sending and receiving data, or performing functions "known" in the art. In other words, as will be

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discussed below, the claimed functions are "well-understood, routine, activit[ies]' previously known to the industry." *Id.* at 2359 (quoting *Mayo*, 132 S. Ct. at 1294).

In re TLI Communications LLC Patent Litigation, 823 F.3d 607,613–614 (2016).

CONCLUSIONS OF LAW

The rejection of claims 1, 3, 4, 7, 8, 10–13, and 18–28 under 35 U.S.C. § 101 as directed to non–statutory subject matter is proper.

DECISION

The rejection of claims 1, 3, 4, 7, 8, 10–13, and 18–28 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