UNITED STATES PATENT AND TRADEMARK OFFICE

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Mintz Levin/SAP
Mintz Levin Cohn Ferris Glovsky and Popeo, P.C.
One Financial Center
Boston, MA 02111

EXAMINER
NANO, SARGON N

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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Ex parte HILMAR DEMANT, SEBASTIAN DROLL, JOACHIM FITZER,
IOANNIS GRAMMATIKAKIS, JAN HEILER, JUERGEN SATTLER,
FRANK SCHERTEL, MARKUS VIOL, and THORSTEN WEBER

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Appeal 2018-006960
Application No. 15/344,977[1]
Technology Center 2400

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Before MARC S. HOFF, JAMES R. HUGHES, and JOYCE CRAIG,
Administrative Patent Judges.

HOFF, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from a Final Rejection of
claims 21–40. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

_____

[1] Appellants state that the real party in interest is SAP SE. App. Br. 2.

Appellants' invention is a method for, a computer-readable medium storing instructions for, and a client device that performs functions for client-side processing based on component relationships. In the method, a client device stores a first component and a second component, and a relationship value representing a dependent relationship between the first component and second component. A client database manager may be configured to send to the server side of a network, in response to a request to process the first component, a request for an update of at least one of the components. A client processing module may be configured to cause the processor to process, at the client device, at least a portion of the first component and at least a portion of the second component, based on the relationship value. Spec. ¶ 4.

Claim 21 is reproduced below:

> 21. A non-transitory computer-readable storage medium storing code representing instructions that when executed are configured to cause a processor to perform a process, the code comprising code to:
>
> receive a request to process a component at a client device on a client side of a network;
>
> send, to a server device on a server side of the network, a request to retrieve the component;
>
> receive, in response to the request to retrieve the component, a plurality of relationship values and a plurality of components including the component, each relationship value from the plurality of relationship values representing at least a portion of a dependent relationship between one component from the plurality of components and another component from the plurality of components;
>
> store the plurality of relationship values in a relationship metadata database in a memory of the client device, the relationship metadata database at the client device mirroring at

least a portion of a relationship metadata database maintained at the server device; and

trigger, starting at a time, processing of the plurality of components at the client device in an order based on the plurality of relationship values after the storing of the plurality of relationship values in the relationship metadata database of the client device.

The Examiner rejects the claims on appeal as follows:

Claims 21–40 stand rejected under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter.

Throughout this decision, we make reference to the Appeal Brief ("App. Br.," filed Mar. 22, 2018), the Reply Brief ("Reply Br.," filed June 25, 2018), and the Examiner's Answer ("Ans.," mailed Apr. 30, 2018) for their respective details.

ISSUES

Is the claimed invention directed to a judicial exception?

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. *See, 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 water-proof cloth, vulcanizing India rubber, smelting ores" (*id.* at 182 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.* at 191 (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.*

The PTO recently published revised guidance on the application of § 101. USPTO's January 7, 2019 Memorandum, *2019 Revised Patent Subject Matter Eligibility Guidance* ("Memorandum"). 84 Fed. Reg. 50. Under that 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, conventional
> activities previously known to the industry, specified at a high
> level of generality, to the judicial exception.

See Memorandum.

ANALYSIS

SECTION 101 REJECTION

Claim 21 recites the following process steps, embodied as computer-
readable stored code:

(a) receiving a request to process a component at a client device on a
client side of a network;

(b) sending, to a server device, a request to retrieve the component;

(c) in response to the request to retrieve the component, receiving a
plurality of relationship values and a plurality of components;

(d) storing the plurality of relationship values in a relationship
metadata database in a memory of the client device, which mirrors a
database maintained at the server device; and

(e) triggering processing of the plurality of components at the client
device in an order based on the plurality of relationship values after the

storage of the plurality of relationship values in the relationship metadata database of the client device.

Method claim 28 and "client device" claim 35 recite functionally identical limitations.

These limitations, under their broadest reasonable interpretation, recite having a client device process a component upon request, the processing based on a plurality of client-stored relationship values. Further, a server device is responsible for providing the component and the plurality of relationship values to the client.

Under the 2019 Guidelines, we first determine whether the claims recite one of several groupings of abstract ideas: mathematical concepts, certain methods of organizing human activity, and mental processes. *See* Memorandum, 84 Fed. Reg. at 52.

We first determine that the claims under appeal do not recite mathematical concepts. In reviewing the claims, we do not discern mathematical relationships, mathematical formulas or equations, or mathematical calculations. *See id.*

Second, we determine that the appealed claims do not recite a mental process. Limitations such as receiving a request to process a component at a client device, storing relationship values in a database in a memory of a client device, and triggering processing of a plurality of components at the client device, recite specific physical elements and are not concepts that could fairly be characterized as being "performed in the human mind." *See id.*

The remaining category of abstract ideas for consideration is "certain methods of organizing human activity," subcategorized as fundamental

economic principles or practices; commercial or legal interactions; or managing personal behavior or relationships or interactions between people. *See id.* The Examiner characterizes the claimed invention as being "directed to the abstract idea of rapid processing of client-side component." Final Act. 3. Without elaboration, the Examiner concludes that such a concept of "rapid processing" "is similar to the kind of 'organizing human activity' at issue in *Alice Corp.* . . . [it] is similar to the abstract idea of Creating an index, and using that index to search for and retrieve data . . . and Data recognition and storage." *Id.* at 3–4 (emphasis added).

We do not agree with the Examiner's characterization of the claims directed to a method of organizing human activity. First, we do not consider the claimed invention to recite economic principles or practices, or commercial or legal interactions, or managing personal behavior or relationships or interactions between people. Second, we agree with Appellants' argument that the claimed invention can be distinguished from the inventions in other "organizing human activity" cases. App. Br. 6. For example, *Bilski* concerned a method of hedging risk, "something that humans do." *Id.* We agree with Appellants that in contrast, the claimed invention, with limitations such as "to process a component at a client device," or "send, to a server device on a server side of the network, a request to retrieve the component," does not concern "something that humans do" and cannot fairly be characterized as a method of organizing human activity. App. Br. 6–7.

We conclude that the claims are not directed to a judicial exception because the claimed invention is not directed to any of the categories of

abstract ideas enumerated in the 2019 Guidelines. *See* Memorandum, 84 Fed. Reg. at 52.

Having determined that the claimed invention does not recite an abstract idea, we need not reach the question of whether any claimed idea is integrated into a practical application. We conclude that the claims are directed to patent-eligible subject matter, and we do not sustain the Examiner's 35 U.S.C. § 101 rejection of claims 21–40.

CONCLUSION

The claimed invention is not directed to a judicial exception.

ORDER

The Examiner's decision to reject claims 21–40 under 35 U.S.C. § 101 is reversed.

REVERSED