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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DAVID R. WENDER

Appeal 2017-005800
Application 14/175,274¹
Technology Center 3600

Before JOHN A. JEFFERY, CATHERINE SHIANG, and
CARL L. SILVERMAN, *Administrative Patent Judges*.

SHIANG, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1–21, 47, and 48, which are all the claims pending and rejected in the application.² We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

STATEMENT OF THE CASE

Introduction

¹ Appellant identifies Intercontinental Exchange Holdings, Inc. as the real party in interest. App. Br. 1.

² Claims 22–46 and 49 have been withdrawn. App. Br. 16–20.

According to the Specification, the present invention relates “to systems and apparatus for receiving and processing trade orders, and more particularly to calculating and visually displaying the profitability and risk profile of a proposed trade to facilitate processing of a trade order.” *See* Spec. ¶ 1. Claim 1 is exemplary:

1. A computer device comprising:
 - a user interface configured to display, in a window:
 - a theoretical price indicator associated with a theoretical price that is calculated based on at least one proposed order price, at least one pricing parameter, and market data for at least one type of asset traded on at least one electronic exchange, and
 - one or more market data indicators displayed relative to the theoretical price indicator; and
 - one or more processors configured to execute computer executable instructions stored in a non-transitory memory, the computer executable instructions being configured, when executed, to cause the one or more processors to:
 - construct one or more proposed trades based on at least one proposed order quantity and on the at least one proposed order price,
 - wherein the one or more market data indicators are associated with the one or more proposed trades,
 - compare the theoretical price and the one or more proposed trades to identify a relation between said one or more market data indicators and the theoretical price indicator, and
 - cause the user interface to display the one or more market data indicators at a location in the window relative to the theoretical price indicator according to the identified relation.

*Rejection*³

Claims 1–21, 47, and 48 stand rejected under 35 U.S.C § 101 because they are directed to patent-ineligible subject matter. *See* Final Act. 10–13.

ANALYSIS

We disagree with Appellant’s arguments, and agree with and adopt the Examiner’s findings and conclusions in (i) the action from which this appeal is taken (Final Act. 10–13) and (ii) the Answer (Ans. 2–15) to the extent they are consistent with our analysis below.⁴

The Examiner rejects the claims under 35 U.S.C. § 101 because they are directed to patent-ineligible subject matter. *See* Final Act. 10–13; Ans. 2–15. In particular, the Examiner concludes the claims are directed to the abstract idea of constructing, comparing, and displaying information. *See* Ans. 5–6. The Examiner determines the claims do not identify an inventive concept to transform the nature of the claims into a patent-eligible application. *See* Ans. 5–15. Appellant argues the Examiner erred. *See* App. Br. 3–11; Reply Br. 1–7.

Appellant has not persuaded us of error. Section 101 of the Patent Act provides “[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

³ Throughout this opinion, we refer to (1) the Final Rejection dated August 1, 2016 (“Final Act.”); (2) the Appeal Brief dated September 15, 2016 (“App. Br.”); (3) the Examiner’s Answer dated December 21, 2016 (“Ans.”); and (4) the Reply Brief dated February 17, 2017 (“Reply Br.”).

⁴ To the extent Appellant advances new arguments in the Reply Brief without showing good cause, Appellant has waived such arguments. *See* 37 C.F.R. § 41.41(b)(2).

and requirements of this title.” 35 U.S.C. § 101. That provision “contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014) (quoting *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2116 (2013)). According to the Supreme Court:

[W]e 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, we 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, we 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. . . . We have 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., 134 S. Ct. at 2355 (quoting *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 132 S.Ct. 1289, 1294, 1296–98 (2012)).

The Federal Circuit has described the *Alice* step-one inquiry as looking at the “focus” of the claims, their “character as a whole,” and the *Alice* step-two inquiry as looking more precisely at what the claim elements add—whether they identify an “inventive concept” in the application of the ineligible matter to which the claim is directed. *See Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016); *Enfish, LLC v.*

Microsoft Corp., 822 F.3d 1327, 1335–36 (Fed. Cir. 2016); *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015).

Regarding *Alice* step one, the Federal Circuit has “treated *collecting information*, including when limited to particular content (which does not change its character as information), as within the realm of abstract ideas.” *Elec. Power*, 830 F.3d at 1353 (emphasis added); see also *Internet Patents*, 790 F.3d at 1348–49; *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015); *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat’l Ass’n*, 776 F.3d 1343, 1347 (Fed. Cir. 2014). “In a similar vein, we have treated *analyzing information* [including manipulating information] by steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes within the abstract-idea category.” *Elec. Power*, 830 F.3d at 1354 (emphasis added); see also *In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 613 (Fed. Cir. 2016). “And we have recognized that *merely presenting the results of abstract processes of collecting and analyzing information, without more* (such as identifying a particular tool for presentation), is abstract as an ancillary part of such collection and analysis.” *Elec. Power*, 830 F.3d at 1354 (emphases added); see also *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 714–15 (Fed. Cir. 2014).

The rejected claims “fall into a familiar class of claims ‘directed to’ a patent-ineligible concept.” *Elec. Power*, 830 F.3d at 1353. Contrary to Appellant’s arguments (App. Br. 3–11; Reply Br. 1–7), we agree with the Examiner that the claims are similar to the claims of *Electric Power*, and are focused on the combination of abstract-idea processes or functions. See Ans. 14–15; *Elec. Power*, 830 F.3d at 1354. For example, claim 1 is

directed to displaying information (“display . . .”), and analyzing information (“construct . . . based on . . .” and “compare . . . to identify . . .”). *See Elec. Power*, 830 F.3d at 1353.⁵

We also agree with the Examiner that the claims are directed to a fundamental economic activity (collecting, analyzing, and displaying information associated with trading). *See* Final Act. 11. Our determination is consistent with the Specification, which states “[t]he present disclosure relates generally to a method and a system for processing a trade order.” Spec. ¶ 4.

Appellant’s assertion regarding pre-emption (Reply Br. 5) is unpersuasive, because “[w]hile preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility 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); *see also OIP*, 788 F.3d at 1362–63 (“that the claims do not preempt all price optimization or may be limited to price optimization in the e-commerce setting do not make them any less abstract”).

Contrary to Appellant’s assertion (App. Br. 3–10), the rejected claims are unlike the claims in *Enfish*. In *Enfish*, the court determines:

⁵ Some dependent claims are also directed to collecting information. *See* claims 13, 15, 17–18. We select claim 1 as the representative claim, and group the remaining claims accordingly under 37 C.F.R. 41.37(c)(1)(iv) (“[T]he failure of appellant to separately argue claims which appellant has grouped together shall constitute a waiver of any argument that the Board must consider the patentability of each grouped claim separately.”).

The . . . patents are directed to *an innovative logical model for a computer database*. . . . A logical model generally results in the creation of particular tables of data, but it does not describe how the bits and bytes of those tables are arranged in physical memory devices. *Contrary to conventional logical models, the patented logical model includes all data entities in a single table, with column definitions provided by rows in that same table*. The patents describe this as the “self-referential” property of the database.

Enfish, 822 F.3d at 1330 (emphases added).

[T]he plain focus of the claims is on an improvement to computer functionality itself, not on economic or other tasks for which a computer is used in its ordinary capacity.

[T]he claims . . . are directed to a specific improvement to the way computers operate, embodied in the self-referential table.

Id. at 1336.

The rejected claims are unlike the claims of *Enfish* because they are not “directed to an innovative logical model for a computer database [that] includes all data entities in a single table, with column definitions provided by rows in that same table.” *Id.* at 1330. Instead, the pending claims are directed to manipulating information in a known user interface, and “the focus of the claims is not on such an improvement in computers as tools, but on certain independently abstract ideas that use computers as tools.” *Elec. Power*, 830 F.3d at 1354.

Further, Appellant’s assertion (Reply Br. 1–2, 4–5) about *McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299 (Fed. Cir. 2016) is unpersuasive. In *McRO*, the Court determines:

Claim 1 of the ’576 patent is focused on *a specific asserted improvement in computer animation*, i.e., the automatic use of rules of a particular type. . . . It is the incorporation of the claimed rules, not the use of the computer, that “improved [the]

existing technological process” by allowing the automation of further tasks.

Further, the automation goes beyond merely “organizing [existing] information into a new form” or carrying out a fundamental economic practice. . . . *The claimed process uses a combined order of specific rules that renders information into a specific format that is then used and applied to create desired results: a sequence of synchronized, animated characters.*

McRO, 837 F.3d at 1314–15 (emphases added).

Unlike the claims of *McRO*, the rejected claims are not directed to “a specific asserted improvement in computer animation,” let alone “us[ing] a combined order of specific rules that renders information into a specific format that is then used and applied to create desired results: a sequence of synchronized, animated characters.” *McRO*, 837 F.3d at 1314–15.

Appellant cites *Trading Techs. Int’l Inc. v. CQG Inc.*, 2017 WL 192716 (Fed. Cir. 2017) (unpublished) (Reply Br. 1, 4–5), but does not persuasively explain why that case is similar to the present case. In *Trading Techs.*, the Court determines:

The patents explain problems that arise *when a trader attempts to enter an order at a particular price, but misses the price because the market moved before the order was entered and executed.* It also sometimes occurred that *trades were executed at different prices than intended*, due to rapid market movement. This is the problem to which these patents are directed.

. . . In the patented system bid and asked prices are displayed dynamically along the static display, and *the system pairs orders with the static display of prices and prevents order entry at a changed price.*

The district court explained that *the challenged patents do not simply claim displaying information on a graphical user*

interface. The claims require a specific, structured graphical user interface paired with a prescribed functionality directly related to the graphical user interface's structure that is addressed to and resolves a specifically identified problem in the prior state of the art. The district court concluded that the patented subject matter meets the eligibility standards of Alice Step 1. We agree with this conclusion

The district court alternatively continued the analysis under *Alice* Step 2, and determined that the challenged claims recite an “inventive concept.” . . . *The court identified the static price index as an inventive concept that allows traders to more efficiently and accurately place trades using this electronic trading system.*

Trading Techs., 2017 WL 192716 at *1, *3 (emphases added).

Unlike the claims of *Trading Techs.*, the claims here do not address the problem of “when a trader attempts to enter an order at a particular price, but misses the price because the market moved” or “trades were executed at different prices than intended.” *Trading Techs.*, 2017 WL 192716 at *1.

Nor do the pending claims “pair[] orders with the static display of prices and prevents order entry at a changed price” or require any “static price index.” *Trading Techs.*, 2017 WL 192716 at *1, *3.

Regarding *Alice* step two, contrary to Appellant’s assertion (App. Br. 3–11; Reply Br. 1–7), Appellant has not shown the claims in this case require an arguably inventive set of components or methods, or invoke any assertedly inventive programming. *See Elec. Power*, 830 F.3d at 1355.

Contrary to Appellant’s arguments (App. Br. 3–11; Reply Br. 1–7), the claims are similar to the claims of *Electric Power*, because they do not require any nonconventional computer, network, or display components, or even a “non-conventional and non-generic arrangement of known,

conventional pieces,” but merely call for performance of the claimed information collection, analysis, and display functions on generic computer components and display devices. *See Elec. Power*, 830 F.3d at 1355; *see also* Claim 1 (reciting “[a] computer device comprising . . . a user interface . . . one or more processors”). The Specification makes it clear the recited user interface was generic:

[t]he term “user interface” shall refer to any suitable type of device, connection, display and/or system through which information may be conveyed to a user, such as, without limitation, a monitor, a computer, a graphical user interface, a terminal, a screen, a telephone, a personal digital assistant, a smartphone, or an interactive television.

Spec. ¶ 17.

Similar to the claims of *Electric Power*, the rejected claims specify what information is desirable to gather, analyze, and display, but they “do not include any requirement for performing the claimed functions of gathering, analyzing, and displaying . . . by use of anything but entirely conventional, generic technology.” *Elec. Power*, 830 F.3d at 1356. Therefore, similar to the claims of *Electric Power*, the rejected claims “do not state an arguably inventive concept in the realm of application of the information-based abstract ideas.” *Elec. Power*, 830 F.3d at 1356.

Appellant’s assertions that “the claimed GUI . . . us[es] minimal GUI space” and “the claims are taking a GUI and reconfiguring it to operate differently from conventional GUI’s” (App. Br. 3, 4 (emphases omitted); *see also* App. Br. 4–11; Reply Br. 2–7) are not commensurate with the scope of the claims, as the claims do not recite such limitations. For example, claim 1 recites using a generic “user interface” to display information, which is a conventional operation. *See* Spec. ¶ 17. Contrary to Appellant’s assertions,

the claims are directed to collecting and analyzing information, and displaying *different information content* in a user interface. And our determination is consistent with the Specification, which describes presenting different information in order to facilitate trading. *See* Spec. ¶¶ 1–3. Appellant has not explained why displaying *different information content* in a generic user interface renders the claims patent eligible under *Alice*.

Appellant’s argument regarding the absence of a prior art rejection (App. Br. 10; Reply Br. 4, 6) is unpersuasive, because a prior art rejection is determined under 35 U.S.C. § 102 and § 103, which are different statutory requirements. As the Supreme Court emphasizes: “[t]he ‘novelty’ of any element or steps in a process, or even of the process itself, is of *no relevance* in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter.” *Diamond v. Diehr*, 450 U.S. 175, 188–89 (1981) (emphasis added). Our reviewing court further guides that “[e]ligibility and novelty are separate inquiries.” *Two-Way Media Ltd. v. Comcast Cable Commc’ns, LLC*, 874 F.3d 1329, 1340 (Fed. Cir. 2017).

Appellant’s assertion (App. Br. 3, 7–9) about *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014) is unpersuasive. In *DDR Holdings*, the Court found:

the claims at issue here specify how interactions with the Internet are manipulated to yield a desired result—a result that overrides the routine and conventional sequence of events ordinarily triggered by the click of a hyperlink. Instead of the computer network operating in its normal, expected manner by sending the website visitor to the third-party website that appears to be connected with the clicked advertisement, the

claimed system generates and directs the visitor to the above-described hybrid web page that presents product information from the third-party and visual “look and feel” elements from the host website. When the limitations of the ‘399 patent’s asserted claims are taken together as an ordered combination, the claims recite an invention that is not merely the routine or conventional use of the Internet.

DDR Holdings, 773 F.3d at 1258–59 (emphasis added).

Unlike the claims of *DDR*, the claims here do not “specify how interactions with the Internet are manipulated to yield . . . a result that overrides the routine and conventional sequence of events.” *DDR Holdings*, 773 F.3d at 1258. Further, this case is distinguished from *DDR* because as discussed above, the claims here recite inventions that are merely the routine or conventional use of the technology—the opposite of what the claims of *DDR* represent. *See DDR Holdings*, 773 F.3d at 1258–59.

Appellant cites *BASCOM Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016) (Reply Br. 1–2, 5–6), but do not persuasively explain why that case is similar to the present case. In *BASCOM*, the court determined that at the pleading stage and construed in favor of the nonmovant,

The inventive concept described and claimed . . . is the installation of a filtering tool at a specific location, remote from the end-users, with customizable filtering features specific to each end user. This design gives the filtering tool both the benefits of a filter on a local computer and the benefits of a filter on the ISP server. *BASCOM* explains that the inventive concept rests on taking advantage of the ability of at least some ISPs to identify individual accounts that communicate with the ISP server, and to associate a request for Internet content with a specific individual account.

Id. at 1350 (emphasis added).

The rejected claims are unlike the claims of *BASCOM* because they are not directed to an “installation of a filtering tool at a specific location, remote from the end-users, with customizable filtering features specific to each end user.” *Id.* at 1350. Nor do they “give[] the filtering tool both the benefits of a filter on a local computer and the benefits of a filter on the ISP server.” *Id.* In fact, the pending claims do not even recite any ISP server.⁶

Contrary to Appellant’s assertion (Reply Br. 1–2, 6), the rejected claims are unlike the claims in *Amdocs (Israel) Limited v. Openet Telecom, Inc.*, 841 F.3d 1288 (Fed. Cir. 2016). In *Amdocs*, the court determines:

claim 1 of the ’065 patent is tied to a specific structure of various components (network devices, gatherers, ISMs, a central event manager, a central database, a user interface server, and terminals or clients). It is narrowly drawn to not preempt any and all generic enhancement of data in a similar system, and does not merely combine the components in a generic manner, but instead purposefully *arranges the components in a distributed architecture to achieve a technological solution to a technological problem specific to computer networks.*

. . . 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, 841 F.3d at 1301 (citation omitted, emphases added).

⁶ Appellant also cites pages 15 and 16 of *BASCOM*, and asserts “[t]he court in *Bascom* made it clear that ‘any specific, discrete implementation of the abstract idea’ that improves upon the prior art is patent eligible.” Reply Br. 5. Appellant mischaracterizes *BASCOM*, as those pages do not include such a statement.

The rejected claims are unlike the claims of *Amdocs* because they do not “necessarily incorporate[] the invention’s distributed architecture—an architecture providing a technological solution to a technological problem.” *Amdocs*, 841 F.3d at 1301.

In short, Appellant has not shown the claims, read in light of the Specification, require anything other than conventional computer, network, and display technology for collecting, analyzing, and presenting the desired information. *See Elec. Power*, 830 F.3d at 1354. Such invocations of computers and networks are “insufficient to pass the test of an inventive concept in the application” of an abstract idea and, therefore, do not add significantly more to that idea. *Elec. Power*, 830 F.3d at 1355.

Because Appellant has not persuaded us the Examiner erred, we sustain the Examiner’s rejection of claims 1–21, 47, and 48 under 35 U.S.C. § 101.

DECISION

We affirm the Examiner’s decision rejecting claims 1–21, 47, and 48.

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). *See* 37 C.F.R. § 41.50(f).

AFFIRMED