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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte THOMAS F. VAN BUSKIRK, STEPHEN A. ZIELE,
CHARLES C. WILLIAMS, KRISTA LOUISE MILHOLM,
ROBERT ANDREW MCCARROLL, and MUSTAPHA ILES

Appeal 2018-003821
Application 13/865,023
Technology Center 3600

BEFORE ADAM J. PYONIN, MICHAEL J. ENGLE, and
SCOTT RAEVSKY, *Administrative Patent Judges*.

ENGLE, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Level 3 Communications, LLC (“Appellant”¹) appeals under 35 U.S.C. § 134(a) from the Examiner’s decision rejecting claims 1, 3–8, 10–15, and 17–23, which are all of the claims pending in the application. Final Act. 1. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as Level 3 Communications, LLC of Broomfield, Colorado. Appeal Br. 3.

TECHNOLOGY

The claims are directed to “providing one or more questions and/or prompts to . . . customers that enable the customer to identify, diagnose, and/or resolve any technical problems the customer may currently be facing,” including using “a graphical user interface . . . to automatically . . . generate the series of questions/prompts provided to the customer.” Spec. Abstract.

ILLUSTRATIVE CLAIM

Claim 1 is illustrative and reproduced below with certain limitations at issue emphasized:

1. A method for generating questions, comprising:

authenticating a user to obtain *classification data that identifies a group of users* for which at least one question, associated with the group of users, is displayed, the at least one question stored in a prompt tree data structure comprising a collection of nodes defining *a hierarchical relationship between the at least one question, a response, and at least one other question*;

providing the at least one question to the user for display;

receiving the response for the at least one question; and

in response to receiving the response, providing the at least one other question to the user, *the at least one other question hierarchically associated with at least one command that, when executed by a computing device, automatically initiates generation of a trouble ticket corresponding to the at least one question.*

REJECTIONS

Claims 1, 3–8, 10–15, and 17–21 stand rejected under 35 U.S.C. § 101 as being directed to ineligible subject matter without significantly more.

Final Act. 2.

Claims 1, 3–8, 10–15, and 17–21 stand rejected under 35 U.S.C. § 103 as obvious over Malden (US 7,765,165 B2; July 27, 2010) and Coughlin (US 2007/0106542 A1; May 10, 2007). Final Act. 18.

ISSUES

1. Did the Examiner err in concluding that claim 1 was directed to patent-ineligible subject matter without significantly more under § 101?
2. Did the Examiner err in finding Malden teaches or suggests “classification data that identifies a group of users” and “a hierarchical relationship between the at least one question, a response, and at least one other question,” as recited in claim 1?
3. Did the Examiner err in finding the combination of Malden and Coughlin teaches or suggests “the at least one other question hierarchically associated with at least one command that, when executed by a computing device, automatically initiates generation of a trouble ticket corresponding to the at least one question,” as recited in claim 1?

ANALYSIS

§ 101

Section 101 defines patentable subject matter: “Whoever 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. The Supreme Court, however, has “long held that this provision contains an important implicit exception” that “[l]aws of nature, natural phenomena, and abstract ideas are not patentable.” *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70 (2012)

(quotation omitted). “Eligibility under 35 U.S.C. § 101 is a question of law, based on underlying facts.” *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1166 (Fed. Cir. 2018). To determine patentable subject matter, the Supreme Court has set forth a two part test.

“First, we determine whether the claims at issue are directed to one of those patent-ineligible concepts” of “laws of nature, natural phenomena, and abstract ideas.” *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 217 (2014). A court must be cognizant that “all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas” (*Mayo*, 566 U.S. at 71), and “describing the claims at . . . a high level of abstraction and untethered from the language of the claims all but ensures that the exceptions to § 101 swallow the rule.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1337 (Fed. Cir. 2016). Instead, “we evaluate the focus of the claimed advance over the prior art to determine if the character of the claim as a whole, considered in light of the specification, is directed to excluded subject matter.” *Trading Techs. Int’l, Inc. v. IBG LLC*, 921 F.3d 1084, 1092 (Fed. Cir. 2019) (quotation omitted). “The inquiry often is whether the claims are directed to ‘a specific means or method’ for improving technology or whether they are simply directed to an abstract end-result.” *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1326 (Fed. Cir. 2017).

If the claims are directed to an abstract idea or other ineligible concept, then we continue to the second step and “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.” *Alice*, 573 U.S. at 217 (quoting *Mayo*, 566 U.S.

at 79, 78). The Supreme Court has “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.” *Id.* at 217–18 (quotation omitted). However, “[t]he abstract idea itself cannot supply the inventive concept, no matter how groundbreaking the advance.” *Trading Techs.*, 921 F.3d at 1093 (quotation omitted). Moreover, “features that are not claimed are irrelevant as to step 1 or step 2 of the *Mayo/Alice* analysis.” *Am. Axle & Mfg., Inc. v. Neapco Holdings LLC*, 939 F.3d 1355, 1363 (Fed. Cir. 2019).

In 2019, the U.S. Patent & Trademark Office published revised guidance on the application of § 101. USPTO, *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) (“Guidance”); USPTO, *October 2019 Update: Subject Matter Eligibility*, available at https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf (“Oct. Update”). Under that guidance, we look to whether the claim recites

- (1) a judicial exception, such as a law of nature or any of the following groupings of abstract ideas:
 - (a) mathematical concepts, such as mathematical formulas;
 - (b) certain methods of organizing human activity, such as a fundamental economic practice; or
 - (c) mental processes, such as an observation or evaluation that could be performed in the human mind;

- (2) any additional limitations beyond the judicial exception that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h)); and
- (3) any additional limitations beyond the judicial exception that, alone or in combination, were not “well-understood, routine, conventional” in the field (*see* MPEP § 2106.05(d)).

See Guidance 52, 55, 56.

USPTO Step 2A, Prong 1

Here, claim 1 recites the following, with italics, brackets, and whitespace added:

[(A)] authenticating a user to obtain classification data that identifies a group of users for which at least one question, associated with the group of users, [(B)] *is displayed*,

[(C)] the at least one question stored in a prompt tree data structure comprising a collection of nodes defining a hierarchical relationship between the at least one question, a response, and at least one other question;

[(D)] providing the at least one question to the user *for display*;

[(E)] receiving the response for the at least one question;
and

[(F)] in response to receiving the response, providing the at least one other question to the user,

[(G)] the at least one other question hierarchically associated with at least one command that, *when executed by a computing device*, automatically initiates generation of a trouble ticket corresponding to the at least one question.

Thus, claim 1 recites providing a series of hierarchically-related questions and answers in order to generate a trouble ticket, where the first question is based upon a classification of the user in a group. *See also* Final Act. 3.

Other than the displaying and computing device (italicized above), all of the limitations can be performed either mentally (e.g., steps A, C, and G) or verbally between two people (e.g., steps B and D–F). For example, the Specification explains that “[a]ny input received may be processed and used to identify a particular user and any corresponding classification data corresponding to the user” and “[u]ser authentication data includes any information that may be used to identify a particular user, such as name, customer contact information, unique identifier (e.g. number, code), business type, etc.” Spec. ¶ 29. Thus, a store owner can mentally use a customer’s name or face to remember what type of product that customer previously bought. A store owner also can mentally have a series of questions to help narrow in on the problem and solution, where each subsequent question is based on the answers to the previous questions (e.g., “What seems to be the problem?” with the next question being “Have you tried _____?” where the blank changes depending upon the answer to the first question). And once the last question identifies the problem or solution, a store owner can make a mental or written note (i.e., “trouble ticket”), such as to order a replacement part or to follow up with the customer later that week. Claim 1 therefore recites mental processes, which are abstract ideas. *E.g., Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353–54 (Fed. Cir. 2016) (“we have treated analyzing information by steps people go through in their minds, . . . without more, as essentially mental processes within the abstract-idea category”).

Similarly, asking a question and receiving an answer (e.g., a store owner verbally asking questions of a customer) are basic human communication that form one foundation of collecting information. These

steps therefore also fall within managing personal behavior or relationships or interactions between people, which are among the certain methods of organizing human activity identified as abstract ideas. *See, e.g.*, MPEP § 2106.04(a)(2)(II); *see also Intellectual Ventures I LLC v. Erie Indem. Co.*, 850 F.3d 1315, 1327 (Fed. Cir. 2017) (“We have previously held other patent claims ineligible for reciting similar abstract concepts that merely collect, classify, or otherwise filter data.”).

The October Update makes clear that the Guidance’s groupings “encompass both activity of a single person (for example, a person following a set of instructions or a person signing a contract online) and activity that involves multiple people (such as a commercial interaction), and thus, certain activity between a person and a computer (for example a method of anonymous loan shopping that a person conducts using a mobile phone) may fall within the ‘certain methods of organizing human activity’ grouping.” Oct. Update 4. Moreover, “[a]dding one abstract idea . . . to another abstract idea . . . does not render the claim non-abstract.” *RecogniCorp, LLC*, 855 F.3d at 1327; *see also* Oct. Update 2.

Claim 1 therefore recites an abstract idea.

USPTO Step 2A, Prong 2

As presently written, the additional limitations beyond the judicial exception (i.e., displaying and the computing device) have repeatedly been held insufficient under § 101. For example, the collection and display of information on a conventional computer was held unpatentable in *Electric Power Group*:

Though lengthy and numerous, the claims do not go beyond requiring the collection, analysis, and display of available

information in a particular field, stating those functions in general terms, without limiting them to technical means for performing the functions that are arguably an advance over conventional computer and network technology. The claims, defining a desirable information-based result and not limited to inventive means of achieving the result, fail under § 101.

Elec. Power, 830 F.3d at 1351; *see also Univ. of Fla. Research Found., Inc. v. Gen. Elec. Co.*, 916 F.3d 1363, 1367 (Fed. Cir. 2019) (“This is a quintessential ‘do it on a computer’ patent: it acknowledges that [such] data . . . was previously collected, analyzed, manipulated, and displayed manually, and it simply proposes doing so with a computer. We have held such claims are directed to abstract ideas.”).

We are not persuaded claim 1 recites a limitation that reflects an improvement in the functioning of the computer itself or any other technology or technical field. In fact, the claimed “command” is not even limited to a computer command. *E.g.*, Spec. ¶ 24 (“action(s) (referred to as ‘Commands’)”; “A command represents an action that needs to be implemented”). Thus, absent further technical details for how the claimed process is achieved, the computing environment merely automates a manual or mental process, such as a customer service or call center employee following a script. *See* Ans. 6–7 (discussing “phone trees”). “[M]ere automation of manual processes using generic computers does not constitute a patentable improvement in computer technology.” *Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044, 1055 (Fed. Cir. 2017). Therefore, claim 1 as a whole does not integrate the recited judicial exception into a practical application.

USPTO Step 2B

Claim 1 also does not provide any other inventive concept or significantly more than the recited judicial exception. To the contrary, the Specification describes the computing device as generic. *E.g.*, Spec. ¶¶ 39 (“Processor(s) 502 can be any known processor”), 21 (“server 202 . . . may be a personal computer, work station, server, mobile device, mobile phone, processor, and/or other type of processing device and may include one or more processors that process software or other machine-readable instructions”), 23 (same for “administrator device 206”), 28 (same for “user device 204”). As the Supreme Court has said, “the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.” *Alice*, 573 U.S. at 223. Similarly, the mere “display” of information without any technical improvement to *how* the information is displayed is insufficient under § 101. *E.g.*, *Trading Techs.*, 921 F.3d 1084 (addressing three patents related to the “display” of bids and offers in a GUI for electronic trading). Therefore, we agree with the Examiner that the additional limitations, individually and in ordered combination, do not provide for an inventive concept that is significantly more than the recited judicial exception. *See* Final Act. 8.

Conclusion

Accordingly, we sustain the rejection under § 101 of claim 1, and claims 3–8, 10–15, and 17–21, which Appellant argues are patentable for similar reasons. *See* App. Br. 17, 20; 37 C.F.R. § 41.37(c)(1)(iv).

§ 103

For obviousness, Appellant argues three limitations. First, claim 1 recites “classification data that identifies a group of users.”

Appellant argues that Malden teaches data that identifies an *individual* or *specific* user, not a *group* of users. Appeal Br. 22; Reply Br. 4–5. We are not persuaded by Appellant’s argument. As the Examiner correctly points out, Malden discloses identifying both the “type of inquiry ([e.g.,] sales or service or other interaction)” and the “product.” *See, e.g.*, Final Act. 19; Ans. 9–11; *see also* Malden 3:11–16, 4:17–24, 4:66–5:21. “For instance, if the customer 14 is calling to troubleshoot a product that was recently purchased, the agent 24 can initiate a script related to troubleshooting for that particular product.” Malden 5:10–12. In the present application, the Specification states, “*Any input received* may be processed and used to identify a particular user and any corresponding classification data corresponding to the user.” Spec. ¶ 29 (emphasis added). Therefore, Malden’s classifying customers by inquiry type or product is “classification data that identifies a group of users” (e.g., the group of customers who are interested in troubleshooting or the group of customers who are interested in a particular product).

Second, claim 1 further recites “a hierarchical relationship between the at least one question, a response, and at least one other question.”

Appellant argues that “Malden fails to teach a hierarchical relationship comprising *a response*, much less [the full limitation].” Appeal Br. 22. However, Malden discloses that “[b]ranching logic determines the appropriate information to present to the user *based on answers to previous questions*.” Malden 3:28–30 (emphasis added); *see also* Ans. 11. Malden

further discloses that “subsequent questions . . . can be presented to the customer . . . *based on prior answers.*” Malden 5:5–9 (emphasis added). An answer is a “response” and Malden’s branching logic provides a “hierarchical relationship” in which answers to previous questions can determine subsequent questions. Therefore, Appellant fails to adequately explain how Malden fails to teach or suggest this limitation.

Third, claim 1 also recites “the at least one other question hierarchically associated with at least one command that, when executed by a computing device, automatically initiates generation of a trouble ticket corresponding to the at least one question.”

Appellant argues that Malden’s “merely saving and resuming contact with a customer is not analogous” to “*one command that . . . automatically initiates generation of a trouble ticket.*” Appeal Br. 22–23. Further, Appellant argues that “while Coughlin discloses a ‘problem ticket,’ Coughlin also fails to teach” a command that “automatically initiates generation of a trouble ticket corresponding to the at least one question.” *Id.* at 23. However, we agree with the Examiner that one cannot show non-obviousness by attacking references individually when the rejections are based on a combination of references. Ans. 11–12 (citing *In re Keller*, 642 F.2d 413 (CCPA 1981)). Here, the Examiner relies on Malden for teaching or suggesting a “command that . . . automatically initiates generation of a *[identification]* corresponding to the at least one question,” and relies on Coughlin for teaching that such an identification could be labeled a “ticket.” Final Act. 21–23 (emphasis omitted), 22–24. The Examiner also provided a specific rationale why it would have been obvious to a person of ordinary skill in the art to implement Malden using Coughlin’s ticket. *Id.* at 24.

Thus, Appellant attacks the references individually but fails to sufficiently address the Examiner's proposed *combination*.

Accordingly, we sustain the Examiner's rejection under § 103 of claim 1, and claims 3–8, 10–15, and 17–21, which Appellant argues are patentable for similar reasons. *See* App. Br. 25; 37 C.F.R. § 41.37(c)(1)(iv).

DECISION

The following table summarizes the outcome of each rejection:

Claims Rejected	Statute	Basis	Affirmed	Reversed
1, 3–8, 10–15, 17–21	§ 101		1, 3–8, 10–15, 17–21	
1, 3–8, 10–15, 17–21	§ 103	Malden, Coughlin	1, 3–8, 10–15, 17–21	
OVERALL			1, 3–8, 10–15, 17–21	

TIME TO RESPOND

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. § 1.36(a)(1)(iv).

AFFIRMED