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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/912,552	02/17/2016	Shinichi Honda	545-552	5045

27538 7590 06/04/2020

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ART UNIT	PAPER NUMBER
3799	

NOTIFICATION DATE	DELIVERY MODE
06/04/2020	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte SHINICHI HONDA and SHINICHI KARIYA

Appeal 2019-006911[1]
Application 14/912,552
Technology Center 3700

Before PHILLIP J. KAUFFMAN, TARA L. HUTCHINGS, and ALYSSA A. FINAMORE, *Administrative Patent Judges*.

FINAMORE, *Administrative Patent Judge*.

DECISION ON APPEAL

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[1] The citations herein refer to the Specification filed February 17, 2016 ("Spec."), Final Office Action mailed January 8, 2019 ("Final Act."), Advisory Action mailed March 13, 2019 ("Advisory Act."), Appeal Brief filed May 30, 2019 ("Appeal Br."), Examiner's Answer mailed July 29, 2019 ("Ans."), and Reply Brief filed September 24, 2019 ("Reply Br."). The Claims Appendix of the Appeal Brief does not include the claims on appeal because it includes the amended claims of a Response filed February 21, 2019, which the Examiner has not entered. Advisory Act. 1. The claims on appeal are the amended claims of a Response filed October 16, 2018 ("Resp."), which the Examiner considered in the Final Office Action.

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant[2] appeals from the Examiner's decision to reject claims 1–7 and 9[3]–12. We have jurisdiction under § 6(b).

We AFFIRM.

SUBJECT MATTER ON APPEAL

The invention "relates to an information processing apparatus, an information processing method, a program, and an information storage medium wherein evaluation of an action carried out between a plurality of users or user groups is carried out." Spec. ¶ 1. Claims 1 and 10–12 are independent. Resp. 10, 12–15. Independent claim 10, reproduced below, is illustrative of the claimed subject matter.

> 10. An information processing method comprising:
>
> acquiring, regarding a plurality of users or user groups, action result data indicating results of actions carried out between the plurality of users or user groups during execution of a multi-participant application program on an information processing apparatus;
>
> executing a trace process by a plural number of times and computing an evaluation value for each of the users or user groups in response to a number of times by which the user or user group is selected as a target in the plural number of times of the trace process, the trace process including: (i) a starting point selection process randomly selecting a user or a user group as a target from among the plurality of users or user groups, and (ii) a

[2] "Appellant" refers to "applicant" as defined in 37 C.F.R. § 1.42. Appellant identifies Sony Interactive Entertainment Inc. as the real party in interest. Appeal Br. 2.

[3] Claim 9 depends from claim 8, which has been canceled. Resp. 4. In the event of further prosecution, Appellant should correct the dependency of claim 9.

target selection process repetitively performing a process newly selecting, as a next target, an opponent user or opponent user group who has been an opponent of an action carried out by the user or user group selected as the target at present on a basis of the action result data until a predetermined condition is satisfied; and

receiving a request for a recommendation for a set of potential next opponents from a requesting user or a requesting user group from among the plurality of users or user groups, and in response, to select a set of recommendable users or recommendable user groups recommendable as potential next opponents of an action of the requesting user or requesting user group, where the selection is carried out using the evaluation values computed relating to the plurality of users or user groups;

wherein the information processing apparatus: (i) provides information of the selected recommendable user or recommendable user group as the potential next opponents to the requesting user or a user who belongs to the requesting user group, (ii) receives a selection of one next opponent from among the potential next opponents by the requesting user or a user who belongs to the requesting user group, and (iii) executes the multi-participant application program such that the requesting user or a user who belongs to the requesting user group and the one next opponent engage one another in the multi-participant application program.

Resp. 4–5 (claim status identifier omitted).

REJECTION

Claims Rejected	35 U.S.C. §	Basis
1–7, 9–12	101	Eligibility

ANALYSIS

Principles of Law

35 U.S.C. § 101

An invention is patent eligible if it is a "new and useful process, machine, manufacture, or composition of matter." 35 U.S.C. § 101. The Supreme Court, however, has long interpreted § 101 to include an implicit exception: "[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) (quoting *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)).

To "distinguish[] patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts," the Supreme Court, in *Alice*, reaffirmed the two-step analysis previously set forth in *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66 (2012). *Alice*, 573 U.S. at 217. The first step of the analysis considers whether a claim is directed to a patent-ineligible concept, e.g., an abstract idea. *Id.* (citing *Mayo*, 566 U.S. at 77). According to Supreme Court precedent, concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*id.* at 219–20; *Bilski v. Kappos*, 561 U.S. 593, 611 (2010)); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 69 (1972)).

If the claim is directed to an abstract idea, we turn to the second step of the *Alice* framework. The second step considers whether the claim recites an inventive concept—an element or combination of elements sufficient to

ensure the claim amounts to significantly more than the abstract idea and transform the nature of the claim into a patent-eligible application. *Alice*, 573 U.S. at 217–18 (citing *Mayo*, 566 U.S. at 72–73, 78, 79). "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.* at 221 (quoting *Mayo*, 566 U.S. at 77). "[M]erely requiring generic computer implementation fails to transform that abstract idea into a patent-eligible invention." *Id.* at 212.

USPTO Guidance

In January 2019, the U.S. Patent and Trademark Office (USPTO) published revised guidance on the application of 35 U.S.C. § 101. 2019 Revised Patent Subject Matter Eligibility Guidance ("2019 Revised Guidance"), 84 Fed. Reg. 50 (Jan. 7, 2019).[4] "All USPTO personnel are, as a matter of internal agency management, expected to follow the guidance." *Id.* at 51; *see also* October 2019 Update *supra* at 1.

Under the 2019 Revised Guidance and the October 2019 Update, we first look to whether the claim recites:

> (1) any judicial exceptions, including certain groupings of abstract ideas, i.e., (a) mathematical concepts, (b) certain methods of organizing human activity such as a fundamental economic practice, and (c) mental processes, ("Step 2A, Prong One"); and

[4] In response to received public comments, the Office issued further guidance on October 17, 2019, clarifying the 2019 Revised Guidance. USPTO, *October 2019 Update: Subject Matter Eligibility* ("October 2019 Update"), https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf.

> (2) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h) (9th ed. Rev. 08.2017, Jan. 2018)) ("Step 2A, Prong Two").

2019 Revised Guidance, 84 Fed. Reg. at 52–55. The evaluation under Step 2A, Prong Two is performed by (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception, and (b) evaluating those additional elements individually and in combination to determine whether the claim as a whole integrates the exception into a practical application. 2019 Revised Guidance, 84 Fed. Reg. at 54–55 (Section III(A)(2)).

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look, under "Step 2B," 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.

2019 Revised Guidance, 84 Fed. Reg. at 52–56.

Rejection

Appellant argues claims 1–7 and 9–12 as a group. Appeal Br. 7–9; Reply Br. 2–5. We select independent claim 10 as representative, and the remaining claims stand or fall with independent claim 10. *See* 37 C.F.R. § 41.37(c)(1)(iv).

In rejecting independent claim 10, the Examiner analyzes the claim using the *Alice* two-step framework. Final Act. 2–4. Pursuant to the first step, the Examiner determines the claim is directed to "a method of gathering and processing data about interaction between a plurality of users or user groups." *Id.* at 2. According to the Examiner, the claimed method can be performed in the human mind with the aid of pen and paper, and a method for gathering data and calculating results has been held to be an abstract idea. *Id.* at 2 (citations omitted), 4. The Examiner also determines the claim is directed to a "method[] of organizing human activity because [the claim] manage[s] the interactions between people (including the social activity of playing a game)." Ans. 6; *see also* Advisory Act. 2 (determining the same).

Under the second step, the Examiner determines the claim does not include additional elements that are sufficient to amount to significantly more than the abstract idea because "the computer is a generic computer performing routine data processing functions." Final Act. 4. The Examiner also determines the claimed invention does not effect a technological improvement. Advisory Act. 3.

Step 2A, Prong One: Recitation of a Judicial Exception, e.g., an Abstract Idea

Under Step 2A, Prong One of the 2019 Revised Guidance, we consider whether independent claim 10 recites a judicial exception, i.e., an abstract idea, law of nature, or natural phenomenon. 2019 Revised Guidance, 84 Fed. Reg. at 54. For abstract ideas, we contemplate whether a claim limitation or combination of limitations falls within the enumerated groupings of abstract ideas set forth in the 2019 Revised Guidance. *Id.*

Independent claim 10 recites:

> acquiring, regarding a plurality of users or user groups, action result data indicating results of actions carried out between the plurality of users or user groups during execution of a multi-participant application program on an information processing apparatus;
>
> executing a trace process by a plural number of times and computing an evaluation value for each of the users or user groups in response to a number of times by which the user or user group is selected as a target in the plural number of times of the trace process, the trace process including: (i) a starting point selection process randomly selecting a user or a user group as a target from among the plurality of users or user groups, and (ii) a target selection process repetitively performing a process newly selecting, as a next target, an opponent user or opponent user group who has been an opponent of an action carried out by the user or user group selected as the target at present on a basis of the action result data until a predetermined condition is satisfied; and
>
> receiving a request for a recommendation for a set of potential next opponents from a requesting user or a requesting user group from among the plurality of users or user groups, and in response, to select a set of recommendable users or recommendable user groups recommendable as potential next opponents of an action of the requesting user or requesting user group, where the selection is carried out using the evaluation values computed relating to the plurality of users or user groups.

Resp. 4. These steps relate to gathering information and analyzing it, which could practically be performed in the human mind. October 2019 Update *supra* at 7. More specifically, "acquiring, regarding a plurality of users or user groups, action result data indicating results of actions carried out between the plurality of users or user groups during execution of a multi-participant application program on an information processing apparatus" and "receiving a request for a recommendation for a set of

potential next opponents from a requesting user or a requesting user group from among the plurality of users or user groups" relate to gathering information, which is an observation that can be performed in the human mind. "Executing a trace process," "computing an evaluation value," and "to select a set of recommendable users or recommendable user groups . . . where the selection is carried out using the evaluation values" as recited in claim 10 are evaluations that can be performed mentally. Concepts that can be performed in the human mind, including observation, evaluation, judgment, and opinion, are mental processes, which is one of the enumerated groupings of abstract ideas in the 2019 Revised Guidance. 84 Fed. Reg. at 52. As these limitations recite mental processes, they recite abstract ideas.

Independent claim 10 further recites:

> wherein the information processing apparatus: (i) provides information of the selected recommendable user or recommendable user group as the potential next opponents to the requesting user or a user who belongs to the requesting user group, (ii) receives a selection of one next opponent from among the potential next opponents by the requesting user or a user who belongs to the requesting user group, and (iii) executes the multi-participant application program such that the requesting user or a user who belongs to the requesting user group and the one next opponent engage one another in the multi-participant application program.

Resp. 4. Providing information of the selected recommendable user or recommendable user group as the potential next opponents, receiving a selection of one next opponent from the next potential opponents, and executing the multi-participant program so that the user engages the one next opponent, as recited, relate to managing the interactions of players during the social activity of gaming. Managing interactions between people,

including social activities, falls within the enumerated grouping of abstract ideas for certain methods of organizing human activity. 2019 Revised Guidance, 84 Fed. Reg. at 52; October 2019 Update *supra* at 6.

Appellant argues claims dealing with data collection and manipulation do not fall within any of the enumerated categories of abstract ideas, including mathematical concepts. Appeal Br. 8. This argument is not convincing, as the October 2019 Update specifies that a claim relating to data collection and analysis at a high level of generality, such as independent claim 10, recites a mental process, which is one of the enumerated categories of abstract ideas. October 2019 Update *supra* at 7 ("Examples of claims that recite mental processes include: a claim to 'collecting information, analyzing it, and displaying certain results of the collection and analysis,' where the data analysis steps are recited at a high level of generality such that they could practically be performed in the human mind." (quoting *Elec. Power Grp., LLC v. Alstom, S.A.*, 830 F.3d 1350, 1356 (Fed. Cir. 2016))).

Appellant also argues the Examiner has not shown independent claim 10 recites steps that can be performed in the human mind. Reply Br. 4. According to Appellant "the sheer amount of cognitive power required to perform the recited data gathering, analysis, recommendations, execution, etc. makes it impossible to carry out in the human mind." *Id.* Requiring more cognitive power, however, does not show the data gathering and analysis could not be performed mentally, but instead suggests a computer performs the data gathering and analysis more effectively. Our reviewing court has held repeatedly that using a computer to perform tasks more quickly or more accurately does not impart patent eligibility. *See OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015)

("[R]elying on a computer to perform routine tasks more quickly or more accurately is insufficient to render a claim patent eligible."); *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1367 (Fed. Cir. 2015) ("[C]laiming the improved speed or efficiency inherent with applying the abstract idea on a computer [does not] provide a sufficient inventive concept."); *Bancorp Servs., L.L.C. v. Sun Life Assur. Co. of Can. (U.S.)*, 687 F.3d 1266, 1278 (Fed. Cir. 2012) ("[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.").

For the above reasons, independent claim 10 recites mental processes and a certain method of organizing human activity, which are abstract ideas. Independent claim 10, therefore, recites a judicial exception.

Step 2A, Prong Two: Integration into a Practical Application

Having determined independent claim 10 recites a judicial exception, we next consider whether the claim recites any additional elements that integrate the judicial exception into a practical application. 2019 Revised Guidance, 84 Fed. Reg. at 54–55. More specifically, we evaluate any additional elements, individually and in combination, to determine whether they integrate the exception into a practical application, using one or more of the considerations laid out by the Supreme Court and the Federal Circuit and set forth in MPEP §§ 2106.05(a)–(c) and (e)–(h). *Id.*

Apart from the limitations reciting abstract ideas, which we identify above in accordance with the analysis under Step 2A, Prong One, independent claim 10 recites "an information processing apparatus." Resp. 4. Under the 2019 Revised Guidance, if an additional element, alone or in combination, implements a judicial exception with, or uses a judicial

exception in conjunction with, a particular machine, then the additional element may integrate the judicial exception in a practical application. 84 Fed. Reg. at 55. However, a general purpose computer that applies a judicial exception via generic computer functions does not qualify as a particular machine. MPEP § 2106.05(b)(I). Independent claim 10 recites "information processing apparatus" at a high level of generality, without any meaningful detail about the structure or configuration of the information processing apparatus. Accordingly, the recited "information processing apparatus" does not reflect a particular machine.

In determining whether a judicial exception is integrated into a practical application, we also consider whether any additional element, alone and in combination, reflects an improvement in the functioning of a computer or an improvement to another technology or technical field. 2019 Revised Guidance, 84 Fed. Reg. at 55; MPEP § 2106.05(a). Appellant contends the claimed invention "produces a result that solves a problem in the computer arts." Reply Br. 4. In particular, Appellant alleges "when a large number of users participate in a multi-player game it is impossible (or at least impractical) for each of the users to know the details of all of the other users in order to establish a next opponent." *Id.*; *see also* Appeal Br. 9 ("[W]here a large number of users participate in a multi-player game, . . . it is difficult to simply juxtapose users and carry out ranking of all of the users on the basis of results of actions of all the users."). Addressing the problem of determining a formidable opponent, however, is an improvement to the management of interactions between the users, or to the computation of evaluation values meaningful in the selection of potential next opponents. More simply put, the claimed invention represents an improvement to the

abstract idea, not to the computer. The claimed invention affects the way the computer operates only to the extent it implements the abstract idea, and uses a computer merely as a tool to implement the abstract idea. 2019 Revised Guidance, 84 Fed. Reg. at 55; MPEP § 2106.05(a)(I). Accordingly, independent claim 10 does not include any additional elements, alone or in combination, that reflect an improvement in the functioning of a computer or an improvement to another technology or technical field.

For these reasons, independent claim 10 does not include any additional elements, considered individually and in combination, that integrate the judicial exception into a practical application. Consequently, independent claim 10, as a whole, is directed to a judicial exception.

Step 2B: Well-understood, routine, and conventional

As independent claim 10 recites a judicial exception and does not integrate the judicial exception into a practical application, we consider whether the claim includes any additional elements, alone and in combination, that are not well-understood, routine, conventional activity in the field. 2019 Revised Guidance, 84 Fed. Reg. at 56. This step of the analysis considers additional elements, as limitations reciting a judicial exception cannot supply an inventive concept. *See Mayo*, 566 U.S. at 72–73 (requiring "a process that focuses upon the use of a natural law also contain *other* elements or a combination of elements, sometimes referred to as an 'inventive concept,' sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the natural law itself" (emphasis added)); *BSG Tech. LLC v. BuySeasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018) ("It has been clear since *Alice* that a claimed invention's use of the ineligible concept to which it is directed cannot supply the inventive

concept that renders the invention 'significantly more' than that ineligible concept."); *Berkheimer v. HP Inc.*, 890 F.3d 1369, 1374 (Fed. Cir. 2018) (Moore, J., concurring) ("[A]nd *Berkheimer* . . . leave[s] untouched the numerous cases from [the Federal Circuit] which have held claims ineligible because the only alleged 'inventive concept' is the abstract idea.)."

As set forth above, the recited "information processing apparatus" is an additional element. Independent claim 10 recites the "information processing apparatus" at a high level of generality, without any meaningful detail about its structure or configuration. The Specification similarly describes the computing components at a high level of generality. Spec. ¶¶ 10–14 (referring to an information processing system as, for example, "a consumer game machine, a portable game machine, a smartphone, a personal computer or the like"), Fig. 1. Furthermore, the recited "information processing apparatus" does not reflect an improvement to the functioning of the computer, but instead is used merely as a tool to implement the game. Thus, independent claim 10 does not include any additional elements, alone or in combination, that represent something other than well-understood, routine, conventional activity in the field.

Conclusion for the Rejection

In view of the foregoing, independent claim 10 is directed to a judicial exception without significantly more to transform the nature of the claim into a patent-eligible application. We, therefore, sustain the rejection of independent claim 10, with claims 1–7, 9, 11, and 12 falling therewith.

CONCLUSION

We sustain the rejection of claims 1–7 and 10–12 under 35 U.S.C. § 101.

DECISION SUMMARY

Claims Rejected	35 U.S.C. §	Basis	Affirmed	Reversed
1–7, 9–12	101	Eligibility	1–7, 9–12	

TIME PERIOD FOR RESPONSE

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).

AFFIRMED