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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte HERMANN FRANZ BURGMEIER,
RUSSELL SPEIGHT VANBLON, ROD D. WALTERMANN,
SUZANNE MARION BEAUMONT, JONATHAN GAITHER KNOX, and
PETER HAMILTON WETSEL

Appeal 2020-001563
Application 14/098,191
Technology Center 3600

BEFORE DONALD E. ADAMS, RICHARD M. LEBOVITZ, and
ELIZABETH A. LAVIER, *Administrative Patent Judges*.

ADAMS, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from Examiner's decision to reject claims 1–20 (*see* Final Act.² 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. Appellant identifies the real party in interest as “Lenovo (Singapore) PTE. LTD” (Appellant’s September 16, 2019 Appeal Brief (Appeal Br.) 3).

² Examiner’s April 16, 2019 Final Office Action.

STATEMENT OF THE CASE

Information handling devices (“devices”) come in a variety of forms, for example laptop computing devices, tablet computing devices, smart phones, and the like. Such devices are often mobile and carried by a user or otherwise routinely accessed by the user such that the user comes to rely on certain applications, e.g., calendar applications, GPS navigation applications, purchasing or Internet applications, etc. throughout their daily routine.

Certain devices provide applications that attempt to assist the user in organizing their activities. Among these applications are calendar applications that allow a user to make calendar entries, e.g., appointments, and set corresponding reminders for the calendar entries, e.g., reminder notification one hour prior a meeting. Some calendar applications provide a list that is provided, e.g., via email, to the user at the beginning of the day. The list may for example include all calendar appointments for an upcoming period of time, e.g., the day. Thus, the user is apprised of all calendar entries in the morning email such that the user can organize the day’s activities and may be periodically reminded of upcoming events, e.g., meeting at a particular time, via an individual reminder linked to that meeting in the calendar application.

(Spec.³ ¶¶ 1–2.) Appellant discloses, however, that

[c]onventional solutions to organizing user's activities, e.g., calendaring applications, do not really help users based on what is currently important to them in a broad context. This is because such solutions tend to be application specific (e.g., calendar applications are limited to providing notifications/reminders regarding calendar entries) and thus

³ Appellant’s December 5, 2013 Specification.

tend to miss the broader context of the user's life that might derived from other information accessible to the device.

(*Id.* ¶ 15.) Thus, Appellant discloses the

leveraging [of] contextual data (e.g., user search history, user purchase history, calendar entries, current and past location events, people (e.g., device contacts) the user communicated with, as well as the contents of communications, collectively communication events, etc., to determine or infer user interests and how these interests influence the relevance or priority for upcoming user events. In other words, [Appellant] . . . provides a mechanism for determining what is of interest or trending for the device user right now and may thus be used to intelligently organize upcoming events accordingly.

[Appellant also discloses a mechanism that] . . . may reorganize and/or take proactive steps if a user's trend or activity list is predicted to be disrupted for some reason. For example, . . . [a mechanism that] provides a monitoring functionality that acts to regularly calculate current adherence to the user's predicted behavior, e.g., according to the trend list of activities, such that deviation from the predicted behavior may be predicted and mitigating actions may be proposed and/or automatically implemented given the predicted disruption.

(*Id.* ¶¶ 16–17.)

Appellant's claim is reproduced below:

1. A method, comprising:
 - accessing, using a processor, an event list for a user;
 - identifying, using a processor, an event type for each event in the event list, the event type being one of: a high priority event and a low priority event;
 - predicting, based on the user's current context, a disruption to an event in the event list;
 - determining whether to initiate a proposed modification to the event list that negates the predicted disruption to the event, wherein the determining comprises initiating the

proposed modification for: a high priority event and a low priority event having a predicted delay greater than a predetermined threshold amount; and

automatically implementing, responsive to determining that the proposed modification is necessary and prior to the predicted disruption, the proposed modification.

(Appeal Br. 32.)

Grounds of rejection before this Panel for review:

Claims 1–3, 5–13, and 15–20 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Johnson⁴ and Kim.⁵

Claims 4 and 14 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Johnson, Kim, and Aaron.⁶

Claims 1–20 stand rejected under 35 U.S.C. § 101.

Obviousness:

ISSUE

Does the preponderance of evidence relied upon by Examiner support a conclusion of obviousness?

FACTUAL FINDINGS (FF)

FF 1. Johnson “relates generally to business process management systems, and more particularly to scheduling systems in the clinical setting, such as healthcare delivery institutions or hospitals” (Johnson ¶ 2; *see also id.*,

⁴ Johnson et al., US 2009/0089092 A1, published Apr. 2, 2009.

⁵ Kim et al., US 8,112,299 B2, issued Feb. 7, 2012.

⁶ Aaron et al., US 2008/0195312 A1, published Aug. 14, 2008.

Abstract (Johnson discloses “[a] method to schedule resources in delivery of healthcare to a series of patients”); *see* Ans.⁷ 19).

FF 2. Johnson’s

system and method . . . can be operable to adapt the scheduling of clinical activities and procedures in real time that incorporate variation, asset readiness, biometrical changes in the state of patient health, changes in process necessitated by protocols which must be executed that are different than what was originally scheduled, staff and equipment preferences, interdependencies and information flow into the clinical delivery of healthcare that can enable “what-if” capability for prospective decision support given the changes that are occurring and provide viable ways forward that minimize the overall negative system impacts.

(Johnson ¶ 4; *see* Final Act. 4; Ans. 4.)

FF 3. Johnson discloses a system that

can generally create and output a proactive scheduling plan that includes calculating predictions or a forecast of procedure schedules and duration to avoid delays, and can cause an advanced warning with sufficient time to respond in an event that scheduled procedures will start or end before or after their scheduled time. The system . . . can also generate a recommendation regarding one or more specific decision(s) or action(s) that can be taken to add, drop or move specific cases of patients . . . , or tasks of resources. . . . The system . . . can also generally track or monitor availability of the resources . . . and available blocks of time in the schedule of the resources . . . associated with fluctuating demand and availability for the resources.

(Johnson ¶ 22; *see also id.* ¶ 23 (Johnson’s system comprises “a scheduling module . . . configured to schedule procedures or activities in accordance

⁷ Examiner’s October 22, 2019 Answer.

with characterized times from [a] duration predictor module”); *see* Final Act. 4–6 and 8; Ans. 5–7 and 19–20.)

FF 4. Johnson discloses a “method [that] can be represented as program instructions for execution by one or more processors of the system” (Johnson ¶ 70).

FF 5. Johnson discloses that its system can

include a set of decision support rules that can be generally represented by program instructions for the processors of the system . . . to execute to resolve interdependencies in the variation of resources . . ., or to reduce change of risk or confidence associated with interdependencies to variation of resources The system . . . can execute one or more of the decision support rules to identify or calculate a strategy(s) to identify or calculate changes (e.g., add resources . . ., drop resources . . ., change locations of resources . . ., etc.) to the schedule of resources . . . with interdependencies so as to reduce changes to the risk or confidence or probable duration in the candidate schedule of resources. . . . Statuses or states of resources (e.g., assets, personnel, equipment, rooms, etc.) can be monitored periodically or continuously. In many instances, the objective is to lower clinical risk as well as schedule risk and the system can execute commands to readjust the schedule for clinical risk reduction.

(Johnson ¶ 77; *see id.* ¶ 87 (Johnson discloses that its method and system includes calculating [a] change in probabilities of completion of the start time and end times of [a] schedule of resources . . . or protocol of tasks in response to [a] delay in receiving[, for example, a] signed form from [a] first patient); *see* Final Act. 4–5; Ans. 5–6).

FF 6. Johnson discloses that a

change to [a] schedule can include automatically modifying the scheduled or allocation of blocks of time of one or more resources . . . (e.g., . . . delaying the predicted start or duration of predicted time to acquire images of a lower risk or less

critical patients, or having a lowest overall risk of completion of the modified schedule or that will result in a greatest tracked level of staff or overall resource . . . or patient satisfaction (e.g., least wait time, overall patient satisfaction, etc.).

(Johnson ¶ 103; *see* Final Act. 6; Ans. 6.)

FF 7. Examiner finds that Johnson does not disclose the identification, “using a processor, an event type for each event in the event list, the event type being one of a high priority event and a low priority event” (Final Act. 6; Ans. 7).

FF 8. Kim discloses:

A mobile terminal capable of managing schedule and a method of controlling the mobile terminal are provided[, wherein] [i]n order to register a new scheduled event to the mobile terminal, a schedule place corresponding to the new scheduled event may be displayed on a schedule map. Thereafter, a route between the schedule place and other routes may be established in consideration of a current location of the mobile terminal and traffic information. . . . Therefore, a user may easily obtain various schedule information, current location information and traffic condition information from the schedule map.

(Kim, Abstract; *see also id.* at 1: 16–20 (Kim “relates to a mobile terminal capable of managing schedule and a method of controlling the mobile terminal, and more particularly, a mobile terminal capable of managing schedule by using a map and a method of controlling the mobile terminal”); *see* Ans. 19.)

FF 9. Kim discloses:

If the control unit . . . determines that the user cannot arrive at ‘Yeoksam-dong’ in time for the predetermined scheduled event, the control unit . . . may output schedule adjustment information. The schedule adjustment information may provide at least one of a plurality of scenarios for postponing the predetermined scheduled event, changing the

time of the predetermined scheduled event, changing the place of the predetermined scheduled event, and canceling the predetermined scheduled event, and information indicating means of transportation available of recommended.

The schedule adjustment information may be displayed in the display region using a map or text. For example, the control unit . . . may display a popup window for postponing a scheduled event (e.g., an event with a low priority level or having a specific event type or having another characteristic), changing the time or the place of the scheduled event or canceling the scheduled event.

(Kim 10: 36–52; *see also id.* at 22: 24–34 (Kim discloses the performance of schedule adjustments based on the priority level of scheduled events); *see* Final Act. 6–7; Ans. 7 and 20–22.)

FF 10. Examiner finds that the combination of Johnson and Kim fails to disclose “third party service event data [that] includes one or more of weather event data and traffic event data” and relies on Aaron to make up for this deficiency in the combination of Johnson and Kim (Final Act. 11 (citing Aaron ¶ 50)).

ANALYSIS

The rejection over the combination of Johnson and Kim:

Johnson discloses “[a] method to schedule resources in delivery of healthcare to a series of patients” (FF 1; *see* Ans. 19). Johnson’s method can operate to “adapt the scheduling of clinical activities and procedures in real time” based on, *inter alia*, “asset readiness” and “biometrical changes in the state of patient health” (FF 2; *see also* FF 3 (Johnson discloses a system and method that can “generate a recommendation regarding one or more specific decision(s) or action(s) that can be taken to add, drop or move specific cases of patients . . . , or tasks of resources” and “track or monitor availability of

the resources . . . and available blocks of time in the schedule of the resources . . . associated with fluctuating demand and availability for the resources”); FF 5; Ans. 19–20). Johnson exemplifies the modification of scheduling to prioritize patient status, wherein a procedure for low risk or less critical patients may be delayed (FF 6). Kim amplifies Johnson’s disclosure of a scheduling method that priorities activities by disclosing a scheduling method that provides for schedule adjustments based on event priority level (*see* FF 8–9; Ans. 20). Thus, based on the combination of Johnson and Kim, Examiner concludes that, at the time Appellant’s invention was made, it would have been *prima facie* obvious to combine Kim’s method of modifying scheduled events based on event priority with Johnson’s scheduling system and method (*see* Final Act. 7; *see also* FF 1–9). In this regard, Examiner finds that the combination of Johnson and Kim is nothing more than the combination of familiar elements according to known methods to attain a predictable result (*see generally* Final Act. 7; Ans. 8 and 17–20). *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007) (“The combination of familiar elements according to known methods is likely to be obvious when it does not more than yield predictable results.”); *see also id.* “[W]hen a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result.”).

We find no error in Examiner’s conclusion of obviousness.

If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the

technique is obvious unless its actual application is beyond his or her skill.

KSR, 550 U.S. at 417.

For the foregoing reasons, we are not persuaded by Appellant’s contention that Examiner failed to articulate a reason “*why* one of ordinary skill in the art would have been motivated to combine Johnson and Kim, let alone *how* the combination of these references was supposed to work to teach the inventive concepts outlined in the currently claimed embodiments” (Appeal Br. 28; *see also* Reply Br. 29–30).

Kim expressly discloses a schedule modification based on the priority of an event (*see* FF 9; *see also* FF 6 (Johnson also suggests scheduling or schedule modifications, i.e. prioritizing procedures, based patient status); FF 5 (Johnson discloses schedule modifications “to lower clinical risk as well as schedule risk”); Ans. 20 (Examiner finds that Appellant’s claim 1 requires that “the event type [is] one of a high priority event and a low priority event” and, therefore, one type of event, i.e high *or* low priority, need “be found in the art to render the claimed invention obvious”)). Therefore, we are not persuaded by Appellant’s contention that the combination of Johnson and Kim fails to “differentiate between . . . high or low priority events when enacting changes to a user’s schedule” (Appeal Br. 30; *see id.* at 29 (“although an indication may be provided to a user [in Kim] regarding the importance of a scheduled event, nowhere [does Kim] . . . disclose[] that the determination of whether to initiate a proposed modification is based on this importance factor”); Reply Br. 31–32; *cf.* FF 3, 5, 6, and 9).

As discussed above, Johnson discloses a method and system that schedules activities, and modifies scheduled activities, to reduce clinical risk (*see* FF 1–6). In doing so, Johnson discloses the use, *inter alia*, of an

activity duration predictor module, wherein a proactive scheduling plan is created that predicts or forecasts “procedure schedules and duration to avoid delays” (FF 3; *see also* FF 5 (Johnson exemplifies that a schedule may be modified based on “probabilities of completion of the start time and end times of [a] schedule of resources . . . or protocol of tasks”)). Stated differently, Johnson suggests a method wherein a schedule is modified if a predicted delay is greater than a predetermined threshold amount. Therefore, we are not persuaded by Appellant’s contention that the combination of Johnson and Kim “most certainly does not disclose implementing a modification based upon . . . [an] event having a predicted delay greater than a predetermined threshold amount” (Appeal Br. 30; *see* Reply Br. 32; *cf.* Ans. 20–22).

The rejection over the combination of Johnson, Kim, and Aaron:

Based on the combination of Johnson, Kim, and Aaron, Examiner concludes that, at the time Appellant’s invention was made, it would have been *prima facie* obvious to include third party service event data, such as weather event data, as disclosed by Aaron, to the method suggested by the combination of Johnson and Kim (*see* Final Act. 11–12).

Appellant does not address this rejection. “If a ground of rejection stated by the examiner is not addressed in the appellant’s brief, appellant has waived any challenge to that ground of rejection and the Board may summarily sustain it.” Manual of Patent Examining Procedure § 1205.02 (9th Ed., Rev. 08.2017 (Jan. 2018)). Because Appellant does not address this rejection, it is summarily affirmed.

CONCLUSION

The preponderance of evidence relied upon by Examiner supports a conclusion of obviousness.

The rejection of claim 1 under 35 U.S.C. § 103(a) as unpatentable over the combination of Johnson and Kim is affirmed. Claims 2, 3, 5–13, and 15–20 are not separately argued and fall with claim 1.

The rejection of claim 4 under 35 U.S.C. § 103(a) as unpatentable over the combination of Johnson, Kim, and Aaron. Claim 14 is not separately argued and falls with claim 4.

Subject Matter Eligibility:

ISSUE

Does the preponderance of evidence of record support Examiner’s finding that Appellant’s claimed invention is directed to patent-ineligible subject matter?

PRINCIPLES OF LAW

A. Section 101

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 U.S. 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. *E.g.*, *Alice Corp. Pty. Ltd. 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 Court’s two-part 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, 67 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as “molding rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 191 (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 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 187; *see also id.* at 191 (“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 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.* (citation omitted) (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.* (alterations in original) (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.*

B. USPTO Section 101 Guidance

In January 2019, the U.S. Patent and Trademark Office (USPTO) published revised guidance on the application of § 101. 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) (“Guidance”).⁸ “All USPTO personnel are, as a matter of internal agency management, expected to follow the guidance.” *Id.* at 51; *see also* October 2019 Update at 1.

⁸ 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 (the “October 2019 Update”) (available at https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf).

Under the 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., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes) (“Step 2A, Prong One”); and
- (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”).⁹

Guidance, 84 Fed. Reg. at 52–55.

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.

Guidance, 84 Fed. Reg. at 52–56.

ANALYSIS

Appellant’s claim 1 is representative.

⁹ This evaluation 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. *See* Guidance — Section III(A)(2), 84 Fed. Reg. at 54–55.

(Step 1)

We first consider whether the claimed subject matter falls within the four statutory categories set forth in § 101, namely “[p]rocess, machine, manufacture, or composition of matter.” Guidance, 84 Fed. Reg. at 53–54; *see* 35 U.S.C. § 101. Appellant’s claim 1 is directed to a method, which we understand to be a “process,” and, therefore, squarely falls within the statutory categories set forth in § 101. Therefore, we proceed to the next steps of the analysis.

(Step 2A, Prong 1)

In the first prong of Step 2A, the Guidance instructs us to determine whether any judicial exception to patent eligibility is recited in the claim. 84 Fed. Reg. at 54. In this regard, the Guidance identifies three judicially-
excepted groupings identified by the courts as abstract ideas: (1) mathematical concepts, (2) certain methods of organizing human behavior, and (3) mental processes. Guidance, 84 Fed. Reg. at 52–54.

On this record, Examiner finds that Appellant’s claim 1 is directed to “modifying (i.e., organizing and (re)ordering) events (i.e. interpersonal and intrapersonal activities) for a user based on the user’s current contextual data ((e.g., user search history, user purchase history, calendar entries, current and past location events, people (e.g. device contacts)’ (Ans. 10 (citing Spec. ¶ 16) and 10 (citing Spec. ¶ 16)). In this regard, Examiner finds that, “but for the recitation of a processor,” the method of Appellant’s claim 1 comprises “steps that can be carried out in the human mind to organize human activity” (Final Act. 3; *see also* Ans. 3 and 9–10). We agree.

Accessing an event list, i.e. a calendar, and identifying whether events are high or low priority are activities that may be performed in the human

mind, or by a human using a pen and paper (*see* Appeal Br. 32). *See CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372–73 (Fed. Cir. 2011) (determining that a claim whose “steps can be performed in the human mind, or by a human using a pen and paper” is directed to an unpatentable mental process). The same is true for the steps of predicting a disruption, i.e. delay, to an event in the calendar due to a user’s current context, determining whether a delay will be more than a predetermined threshold amount, determining whether to initiate a proposed modification to the scheduled event, and implementing a proposed modification, if it is determined necessary, prior to a predicted disruption (*see* Appeal Br. 32).

As discussed above, the specific steps recited in the method of Appellant’s claim 1 relate to the management, i.e. scheduling, of events. The Guidance defines the management of personal behavior or relationships or interactions between people, including social activities, as a method of organizing human activity. *See* Guidance, 84 Fed. Reg. at 52.

For the foregoing reasons, we are not persuaded by Appellant’s contention that its “claims are not directed to nor do the claim limitations recite . . . certain methods of organizing human activity, or mental processes as those groupings are delineated and provided with the . . . Guidance” (Appeal Br. 22; Reply Br. 24).

(Step 2A, Prong 2)

Having determined that Appellant’s claim recites a judicial exception, the Guidance requires an evaluation as to whether the claim as a whole integrates the recited judicial exception into a practical application of the exception. *See* 84 Fed. Reg. at 54.

On this record, Examiner finds that the “judicial exception is not integrated into a practical application because the modification to the event list is simply the display of the results of the analysis” (Final Act. 3; Ans. 3).

Appellant contends, however, that the method of Appellant’s claim 1 is “directed to technological improvements to the field of scheduled event disruption avoidance” (Appeal Br. 24 (citing Spec. ¶¶ 1, 2, and 15–17); *see also id.* at 25; Reply Br. 26 (citing Spec. ¶¶ 1, 2, and 15–17)). In this regard, Appellant contends that the method of its claim 1 is “directed to an improvement in existing computer technology,” wherein “a technological improvement over existing techniques for automatically adjusting one or more aspects of an event list in order to ensure that a planned disruption to a particular event is negated” (*id.* at 24). Appellant, therefore, contends that the method of its claim 1 is similar to the claims in *McRO, Inc. v. Bandai Namco Games Am.*, 837 F.3d 1299 (Fed. Cir. 2016) (*see* Appeal Br. 24; Reply Br. 26). We are not persuaded.

The claims in *McRO* focused on a specific improvement in computer animation. *McRO*’s claimed process used a combined order of specific rules that renders information into a specific format used and applied to create a desired result—a sequence of synchronized, animated characters. *McRO*, 873 F.3d at 1314–15. The claims in *McRO* recited a process of automated lip-synchronization of 3-D characters that resulted from a specific order of rules as a relationship between sub-sequences of phonemes, timing, and weight of visual expression at a particular timing by a morph weight set. *Id.* at 1315. Thus, the rules in *McRO* improved the synchronization of 3-D characters on computers. In contrast, although the method of Appellant’s claim 1 may provide an improvement in the management of personal behavior or

relationships or interactions between people, including social activities, unlike *McRO*, Appellants' alleged improvement is not to computer technology implementing the method of organizing human activity, but rather to the method of organizing human activity itself (*see* Appeal Br. 24 (citing Spec. ¶¶ 1–2 and 15–17) (Appellant contends that the method of its claim 1 is “directed to technological improvements to the field of scheduled event disruption avoidance); *cf.* Ans. 11–12).

In addition to this, unlike in *McRO* where the specific rules by which the animation was accomplished were claimed, here, the claim does not specify how the steps are carried out. For example, the claim states that the event types are identified, that predictions of disruptions are made, and that modifications are automatically implemented, but the claim does not recite with any specificity the rules by which the steps are accomplished. As explain in *McRO*, “abstract idea exception has been applied to prevent patenting of claims that abstractly cover results where ‘it matters not by what process or machinery the result is accomplished.’ [*O’Reilly v. Morse*, 56 U.S. (15 How.) 62, 113,]; see also *Mayo*, 132 S.Ct. at 1301.” *McRO*, 837 F.3d at 1314. *McRO* stated that therefore, a court must “look to whether the claims in these patents focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery.” *McRO*, 837 F.3d at 1314. Here, the result is claimed, but not specifically the means to accomplish it.

Further, “[i]n cases involving software innovations, th[e] inquiry often turns on whether the claims focus on the specific asserted improvement in computer capabilities . . . or, instead, on a process that qualifies as an abstract idea for which computers are invoked merely as a tool.” *Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299, 1303 (Fed. Cir. 2018) (quoting *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335–36 (Fed. Cir. 2016)) (internal quotation marks omitted, alteration original). On this record, a computer is used merely as a tool, which automates a method of organizing human activity, i.e. a scheduling method.

As discussed above, the last step of the method of Appellant’s claim 1 can be performed in the human mind, wherein, if it is determined necessary, a proposed modification is implemented prior to a predicted disruption (*see* Appeal Br. 32). Although this step in the method of Appellant’s claim 1 requires the automatic implementation of a modification, we find that the “mere 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).

(Step 2B)

Having determined that Appellant’s claim 1: (1) recites a judicial exception and (2) does not integrate that exception into a practical application, the Guidance requires that we evaluate whether Appellant’s claim 1: (a) adds a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field or (b) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception. 84 Fed. Reg. at 52–56.

On this record, Examiner finds that the method of Appellant’s claim 1 does “not include additional elements that are sufficient to amount to significantly more than the judicial exception because the additional elements of the claim are found to be pre/post extra solution activity (i.e. accessing data and displaying (implementing) modification to the event list)” and the processor limitation recited in the claim is nothing more than a “generic off-the-shelf” computing device (Final Act. 3; Ans. 3 and 12–14 (citing Spec. ¶ 5)). Appellant disagrees, contending instead that the method of its “claim 1 requires something more than a generic computer by predicting, based on user context data, a disruption to an event in a scheduled event list and thereafter determin[ing] a proposed modification to the event list that negates the predicted disruption to a particular event” and, even “if the elements as claimed are considered known elements . . . [the method of Appellant’s claim 1 combines the known elements] in a manner that is unconventional and non-generic, and are, thus, directed to substantially more than any abstract idea” (Appeal Br. 25–26; Reply Br. 27–28; *cf.* Ans. 12–17). We are not persuaded.

As discussed above, the method of Appellant’s claim 1 relates to the management, i.e. scheduling, of events. Thus, the method of Appellant’s claim 1 is a method of organizing human activity. In addition, each step of the method set forth in Appellant’s claim 1 can be performed in a human mind and, thus, recites a mental process. “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.” *BSG Tech LLC v. BuySeasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018).

In addition, we are not persuaded by Appellant’s contention that a person of ordinary skill in this art would not have found it routine, convention, and well-known that a scheduled event may be modified if a higher priority event or unplanned event overtakes the scheduled event. For example, we find that those of ordinary skill in this art would have reasonably found it routine, convention, and well-known that an upcoming scheduled event may be postponed due to travel restrictions associated with a global pandemic, i.e. user context data, and, thus, a schedule modification may be made to negate the predicted disruption to the upcoming event.

We are also not persuaded by Appellant’s contention that just like the discussion of the Guidance’s Example 34,¹⁰ which is based upon *BASCOM Global Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016), the method of its claim 1 includes “limitations [that] amount to significantly more than any abstract idea that may be present in the claims” (Appeal Br. 26; *see also* Reply Br. 28). In contrast to the method of Appellant’s claim 1, in *BASCOM* the “specific method of filtering Internet content cannot be said, as a matter of law, to have been conventional or generic.” *Id.* at 1350; *see id.* (“Filtering content on the Internet was already a known concept, and the patent describes how its particular arrangement of elements is a technical improvement over prior art ways of filtering such content”). In upholding the patent-eligibility of the claims, the *BASCOM* court emphasized that, unlike the method of Appellant’s claim 1 on this record, “[t]he claims [in *BASCOM*] do not merely recite the abstract idea of

¹⁰ *Example 34 – System for Filtering Internet Content*, Subject Matter Eligibility Examples: Business Methods, available at: <https://www.uspto.gov/sites/default/files/documents/101examples1to36.pdf>.

filtering content along with the requirement to perform it on the Internet, or to perform it on a set of generic computer components. Such claims would not contain an inventive concept.” *Id.* at 1350. In addition, *BASCOM* instructs that “[a]n inventive concept that transforms the abstract idea into a patent-eligible invention must be significantly more than the abstract idea itself, and cannot[, as on this record,] simply be an instruction to implement or apply the abstract idea on a computer.” *Id.* at 1349. Here, Appellant made the assertion that the recited steps are arranged in an unconventional way to achieve the stated result of implementing the proposed modification (Appeal Br. 25–26; Reply Br. 27–28), but did not explain why the arrangement of the recited steps is not conventional, or specifically identify an additional element, apart from the abstract idea, that is arranged unconventionally, as found in *BASCOM*.

To be complete, we are not persuaded by Appellants’ contentions regarding preemption (*see* App. Br. 24 (Appellant contends that it “does not claim any or all types of event list modifications that might be applied; rather, . . . limits the claims to a specific technique”); *see also* Reply Br. 26). *See Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015) (Although “preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.”).

CONCLUSION

The preponderance of evidence of record supports Examiner's finding that Appellant's claimed invention is directed to patent ineligible subject matter. The rejection of claim 1 under 35 U.S.C. § 101 is affirmed. Appellant's claims 2–20 are not separately argued and fall with Appellant's claim 1.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1–20	101	Eligibility	1–20	
1–3, 5–13, 15–20	103	Johnson, Kim	1–3, 5–13, 15–20	
4, 14	103	Johnson, Kim, Aaron	4, 14	
Overall Outcome			1–20	

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).

AFFIRMED