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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JEREMY A. GREENBERGER and
ZACHARY M. GREENBERGER

Appeal 2018-007599
Application 15/270,362
Technology Center 3600

BEFORE ROBERT E. NAPPI, KRISTEN L. DROESCH, and
SCOTT E. BAIN, *Administrative Patent Judges*.

DROESCH, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision rejecting claims 1–20. 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 (2017). Appellant indicates the real party-in-interest is International Business Machines Corporation. Appeal Br. 2.

BACKGROUND

The disclosed invention relates to customizing active time periods for promotional campaigns (e.g., discounts, sales, etc.) for individual users based on location trends of individual user devices. Spec. ¶¶ 1–2, Abstract.

CLAIMED SUBJECT MATTER

Claim 1, which is representative of the subject matter of the appeal and is reproduced from the Claims Appendix of the Appeal Brief, reads as follows:

1. A computer-implemented method comprising:
 - receiving, by a computing device, user device location information for a plurality of user devices via a computer network;
 - storing, by the computing device, location history for the plurality of user devices corresponding to the user device location information;
 - receiving, by the computing device, campaign criteria in connection with offering a campaign to one or more of the plurality of user devices;
 - determining, by the computing device, active time periods for each the one or more of the plurality of user devices based on the stored location history for the one or more of the plurality of user devices and the campaign criteria, wherein the active time periods correspond to times period in which the campaign is active;
 - generating, by the computing device, and presenting a visual representation of the active time periods; and
 - providing, by the computing device, respective notifications regarding the campaign to each of the one or more of the plurality of user devices based on the determining the active time periods, wherein each of the respective notifications identify a respective active time period.

REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Mankoff et al. (“Mankoff”)	US 2015/0149277 A1	May 28, 2015
Nacer et al. (“Nacer”)	US 2017/0006656 A1	Jan. 5, 2017

REJECTIONS ON APPEAL

Claims 1–20 stand rejected under 35 U.S.C. § 101 as directed to patent-ineligible subject matter.

Claims 1–20 stand rejected under 35 U.S.C. § 103 as unpatentable over Mankoff and Nacer.

Claim 16 stands rejected under 35 U.S.C. § 112 (a) as failing to comply with the written description requirement.

ANALYSIS

§ 101 Rejection

Claims 1, 10–14, and 19

Appellant disputes the Examiner’s conclusions that claims 1–20 are directed to patent-ineligible subject matter. *See* Appeal Br. 6–45. Appellant argues claims 1 and 10–13 together as a group. *See id.* at 6–17, 24.

Consequently, we choose claim 1 as representative of the group. 37 C.F.R. 41.37(c)(1)(iv). Appellant’s arguments addressing independent claims 14 and 19 are substantially identical to the arguments presented addressing claim 1. *Compare* Appeal Br. 24–32, 36–45, *with id.* at 6–17. As a result we choose claim 1 as representative of independent claims 1, 14, and 19.

The Supreme Court’s two-step framework guides our analysis of patent eligibility under 35 U.S.C. § 101. *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. 208, 217 (2014). In addition, the Office published revised guidance for evaluating subject matter eligibility under 35 U.S.C. § 101,

specifically with respect to applying the *Alice* framework. USPTO, 2019 *Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) (“Guidance”). If a claim falls within one of the statutory categories of patent eligibility (i.e., a process, machine, manufacture, or composition of matter) then the first inquiry is whether the claim is directed to one of the judicially recognized exceptions (i.e., a law of nature, a natural phenomenon, or an abstract idea). *Alice*, 573 U.S. at 217. As part of this inquiry, we must “look at the ‘focus of the claimed advance over the prior art’ to determine if the claim’s ‘character as a whole’ is directed to excluded subject matter.” *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016). According to the Guidance, this first inquiry has two prongs of analysis (i) does the claim recite a judicial exception (e.g., an abstract idea); and (ii) if so, is the judicial exception integrated into a practical application. *See* Guidance, 84 Fed. Reg. at 54. Under the Guidance, if the judicial exception is integrated into a practical application, the claim is patent eligible under § 101. *See id.* at 54–55. If the claims are not directed to a judicial exception, the inquiry ends. *See McRO Inc. v. Bandai Namco Games Amer. Inc.*, 837 F.3d 1299, 1312 (Fed Cir. 2016). However, if the claim is directed to a judicial exception (i.e., recites a judicial exception and does not integrate the exception into a practical application), the next step is to determine whether any element, or combination of elements, amounts to significantly more than the judicial exception. *See Alice*, 573 U.S. at 217; *see also* Guidance, 84 Fed. Reg. at 56.

Here, we conclude claim 1 recites determining active time periods of a campaign for each of a plurality of user devices based on stored location history of each of the user devices and the campaign criteria, presenting a visual representation of the active time periods, and providing notifications

to the user devices regarding the campaign and active time periods. This is consistent with how Appellant describes the claimed invention. *See* Spec. ¶¶ 1, 15–16 (disclosing customizing active time periods for promotional campaigns for individual users based on location trends of individual user devices and then providing notifications to user devices regarding the campaign and the active time period), ¶¶ 80–86, Fig. 7 (disclosing flowchart including determining campaign active time periods for each user device based on historical location data for each user device and the campaign, and providing notifications of the campaign to user devices).

Consistent with the Guidance and case law, we conclude that determining active time periods of a campaign for each of a plurality of user devices based on the stored location history of the user devices and the campaign criteria, presenting a visual representation of the active time periods, and providing notifications to the user devices of the campaign and active time periods is a commercial interaction in the form of advertising or marketing—a method of organizing human activity, and, thus, an abstract idea. *See* Guidance, 84 Fed. Reg. at 52; *see also Ultramercial, Inc. v. Hulu LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014) (holding that a claim describing only the abstract idea of showing an advertisement before delivering free content is patent ineligible); *OIP Techs. Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362–63 (Fed. Cir. 2015) (concluding that claimed concept of “offer-based price optimization” is an abstract idea).

Claim 1 includes the following claim limitations that recite a commercial interaction in the form of advertising or marketing, emphasized in *italics*:

determining, by the computing device, active time periods for each the one or more of the plurality of user devices based on the stored location history for the one or more of the plurality of user devices and the campaign criteria, wherein the active time periods correspond to times period in which the campaign is active;

generating, by the computing device, and presenting a visual representation of the active time periods; and

providing, by the computing device, respective notifications regarding the campaign to each of the one or more of the plurality of user devices based on the determining the active time periods, wherein each of the respective notifications identify a respective active time period.

Because the claim recites a judicial exception, we next determine whether the claim integrates the judicial exception into a practical application. *See* Guidance, 84 Fed. Reg. at 54. To determine whether the judicial exception is integrated into a practical application, we identify whether there are “*any additional elements recited in the claim beyond the judicial exception(s)*” and evaluate those elements to determine whether they integrate the judicial exception into a recognized practical application. Guidance, 84 Fed. Reg. at 54–55 (emphasis added); *see* Manual of Patent Examining Procedure (“MPEP”) § 2106.05(a)–(c), (e)–(h) (9th ed. Rev. 08.2017, Jan. 2018).

Here, we find the additional limitations do not integrate the judicial exception into a practical application. Although Appellant asserts that “the claimed invention is directed to a specific computer-based application,” “provides a system having practical, real-life and specific use cases,” and “provides a solution to the problem of providing campaigns at different active time periods for different user devices based on different location histories” (Appeal Br. 10–11; *see also* Reply Br. 8–9 (arguing

unconventional arrangement of steps confine claimed invention to a particular useful application)), the claims do not recite an improvement to the functionality of a computer or other technology or technical field (*see* MPEP § 2106.05(a)). The claims also do not recite (i) a “particular machine” to apply or use the judicial exception (*see* MPEP § 2106.05(b)); (ii) a particular transformation of an article to a different thing or state (*see* MPEP § 2106.05(c)); or (iii) any other meaningful limitation beyond generally linking the use of the judicial exception to a particular technological environment, such that the claim as a whole is more than a drafting effort to designed to monopolize the exception (*see* MPEP § 2106.05(e)). *See* Guidance, 84 Fed. Reg. at 55.

The additional limitations of claim 1 recite: (1) “receiving . . . user device location information for a plurality of user devices via a computer network;” (2) “storing . . . location history for the plurality of user devices corresponding to the user device location information;” (3) “receiving . . . campaign criteria in connection with offering a campaign to one or more of the plurality of user devices;” and (4) “by the computing device.”

We agree with the Examiner that the additional elements require no more than a generic computer, i.e., “by the computing device.” *See* Final Act. 7. We are not persuaded by Appellant’s assertion that the claimed features include functions that are not generic computer functions, which Appellant supports by merely reproducing the limitations of claim 1 describing the abstract idea. *See* Appeal Br. 12 (citing May 4, 2016 USPTO Memorandum regarding Formulating a Subject Matter Eligibility Rejection and Evaluating the Applicant’s Response to a Subject Matter Eligibility Rejection). Implementing an abstract idea on a generic computer is not a practical application of the abstract idea. *See Alice*, 573 U.S. at 221. In

contrast to Appellant’s arguments, Appellant’s Specification discloses the use of computers or processors in generic terms, for example, by disclosing: (1) computer readable program instructions for implementing the method provided to *a processor* or a *general purpose computer, special purpose computer, or other programmable data processing apparatus* (*see* Spec. ¶¶ 25, 26 (emphasis added)); and (2) a computer system/server as a *general purpose computing device* with a memory storing a program module for implementing the method (*see id.* ¶¶ 46–49, 51–52, 61; Fig. 1 (emphasis added)).

The additional elements of: (1) receiving user device location information for a plurality of user devices, (2) storing user device location histories, and (3) receiving campaign criteria, are the types of extra-solution activity (i.e., in addition to the judicial exception), the courts have determined insufficient to transform judicially excepted subject matter into a patent-eligible application. *See* MPEP § 2106.05(g); *see also Bilski v. Kappos*, 561 U.S. 593, 612 (2010) (the use of well-known techniques to establish inputs to the abstract idea is extra-solution activity that fails to make the underlying concept patent eligible); *OIP*, 788 F.3d at 1363 (gathering statistics generated based on customer testing for input to a pricing calculation “fail[s] to ‘transform’ the claimed abstract idea into a patent-eligible invention”).

We also find unpersuasive Appellant’s arguments that the claimed invention improves the field of providing notifications of ad campaigns by providing ad campaigns at active time periods, which may differ between different user devices based on location histories of each user device. *See* Appeal Br. 14; *see also* Reply Br. 7 (arguing the claimed invention improves the effectiveness of ad campaigns to improve ineffective and wasteful ad

campaigns, which is a common problem in the art of ad campaign generation and dissemination). Appellant does not explain sufficiently how providing ad campaigns at active time periods, which may differ between different user devices based on location histories provides an improvement to *technology* or a *technical field*, rather than, for example, providing an improvement to marketing techniques, or to the field of marketing.

We also are not persuaded by Appellant's argument that the claimed invention improves the functioning of the computer itself. *See* Appeal Br. 14–15 (citing May 4, 2016 USPTO Memorandum; Spec. ¶ 18); Reply Br. 8. Appellant argues that the claimed invention improves the functioning of the computer itself by reducing CPU usage/processing, power consumption, network activity, congestion etc., and improving the efficiency of computing resources because resource consumption for the campaign management system may be reduced because fewer campaigns are provided to user devices at more effective times. *See* Appeal Br. 14–15; Reply Br. 8; *see also* Reply Br. 7 (arguing the claimed invention improves the technical field of computer resource reduction). Similarly, Appellant contends the operations of the computer are improved when the need to consume computing resources for an application are reduced, system capacity is increased, and/or overall system resource consumption efficiency is improved. *See* Appeal Br. 14–16 (citing *Enfish LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016)). Appellant does not direct us to evidence sufficient to demonstrate that the claimed invention provides an improvement in computer capabilities, like *Enfish* where the Federal Circuit found a self-referential table in a computer database improved the computer functionality itself. Instead, Appellant's arguments suggest improvements in computer function would be the result of providing fewer promotional

campaigns. Claim 1 does not recite or otherwise require fewer campaigns. Moreover, it is quite possible that, although individual promotional campaigns may be made more effective, the number of promotional campaigns may be increased, foreclosing any realization of computer resource consumption reduction.

Finally, we also find unpersuasive Appellant's assertion, unsupported by any evidence, that the claimed invention adds meaningful limitations beyond generally linking the use of an abstract idea to a particular technological environment. *See* Appeal Br. 16–17; Reply Br. 9–10. In sum, we determine that the additional elements do not integrate the judicial exception into a practical application, and, therefore, conclude that claim 1 is directed to the judicial exception.

Because we determine claim 1 is directed to a judicial exception, next we analyze the claims under step two of *Alice* to determine if there are additional elements that individually, or as an ordered combination, ensure the claims amount to “significantly more” than the abstract idea. *Alice*, 573 U.S. at 217–18 (citing *Mayo*, 566 U.S. 66, 77–79 (2012)). As stated in the Guidance, many of the considerations to determine whether the claims amount to “significantly more” under step two of the *Alice* framework are already considered as part of determining whether the judicial exception has been integrated into a practical application. *See* Guidance, 84 Fed. Reg. at 56. Therefore, at this point of our analysis, we determine if the claims add a specific element, or combination of elements, that is not well-understood, routine, conventional activity in the field, or simply append well-understood, routine, conventional activities at a high level of generality. *See id.* “Whether something is well-understood, routine, and conventional to a

skilled artisan at the time of the patent is a factual determination.”
Berkheimer v. HP Inc., 881 F.3d 1360, 1369 (Fed. Cir. 2018).

Here, Appellant’s claims do not recite specific elements or a combination of elements that are not well-understood, routine, and conventional. Again, the additional elements of claim 1 are: (1) “receiving . . . user device location information for a plurality of user devices via a computer network;” (2) “storing . . . location history for the plurality of user devices corresponding to the user device location information;” (3) “receiving . . . campaign criteria in connection with offering a campaign to one or more of the plurality of user devices;” and (4) “by the computing device.”

We are not persuaded by Appellant’s undeveloped argument that claim 1 includes features that, when considered in combination, amount to significantly more because claim 1 includes steps that are in a non-conventional and non-generic arrangement. *See* Appeal Br. 12–13 (citing May 4, 2016 USPTO Memorandum, November 2, 2016 USPTO Memorandum); *id.* at 16 (citing *Mayo*, U.S. at 81, 87). Appellant merely reproduces the limitations of claim 1 describing the abstract idea, and alleges, without explanation, that these limitations of claim 1 is a non-conventional and non-generic arrangement of elements. *See id.* at 13, 16; Reply Br. 8–9. Appellant’s arguments do not address sufficiently whether the additional elements, individually, or as an ordered combination, are unconventional. “What is needed is an inventive concept in the non-abstract application realm.” *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1168 (Fed. Cir. 2018). “[A] claim for a new abstract idea is still an abstract idea.” *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016).

We agree with the Examiner that receiving, and storing data is well-understood, routine and conventional, and that the collection and analysis of data or information using generic computer components is not a non-conventional arrangement of known conventional features. *See* Final Act. 7; Ans. 6–7. In the Reply Brief, Appellant contends the Examiner has not provided evidence or reasoning to support the conclusion that the additional elements are routine and conventional. *See* Reply Br. 10. Appellant argues that the Examiner does not utilize any of the evidentiary sources set forth in the April 19, 2018 USPTO Memorandum “Changes in Examination Procedure Pertaining to Subject Matter Eligibility.” *See id.* at 10–11.

Appellant’s arguments are not persuasive because our reviewing courts have determined that receiving information and storing information, are conventional computer functions. *See OIP*, 788 F.3d at 1363–64 (gathering statistics generated during testing and storing test results); *Trading Techs.*, 921 F.3d at 1093 (agreeing with Board’s determination that “receiving market information is simply routine data gathering”). Upon consideration of the additional elements, individually, or as an ordered combination, we determine that the additional elements do not provide an inventive concept.

For the foregoing reasons, we are not persuaded the Examiner erred in rejecting claims 1, 10–14, and 19 under 35 U.S.C. § 101. Accordingly, we sustain the Examiner’s rejection of claims 1, 10–14, and 19 under 35 U.S.C. § 101 as directed to patent-ineligible subject matter.

Dependent Claims 2, 5, 6, 15, and 20

Claims 2, 15, and 20 depend from independent claims 1, 14, and 19, respectively, and further recite “the active time period for each of the one or more of the plurality of user devices are different.” Claims 5 and 6 depend

from claim 1 and each further recite “the at least one of the notifications of the respective notifications includes” The Examiner finds that the limitations of these claims fail to establish that the claims are not directed to an abstract idea because they recite analyzing information and displaying results of the analysis. *See* Final Act. 7; Ans. 7.

We are not persuaded by Appellant’s following arguments addressing claims 2, 5, 6, 15, and 20: (1) the claims are not directed to an abstract idea because the features define the specific application and processes of the claimed invention, and (2) the claims recite unconventional steps that confine the claims to a useful application and therefore significantly more than the abstract idea itself. *See* Appeal Br. 17, 20–21, 32–33, 44–45; Reply Br. 11–13, 17, 21. In support of its arguments, Appellant merely reproduces the limitations of claims 2, 5, 6, 15, and 20. *See* Appeal Br. 17–18, 20–21 32–33, 44–45; Reply Br. 11–13, 17, 21. The limitations of claims 2, 15, and 20, describe the abstract idea, recited in claims 1, 14, and 19, as including different active time periods for each one of the one or more plurality of user devices. And claims 5 and 6 further describe the abstract idea recited in claim 1 as including certain types of notifications. Appellant’s bare arguments reiterating the limitations of claims 2, 5, 6, 15, and 20 do not sufficiently demonstrate that the claims recite additional elements that integrate the abstract idea into a practical application by, for example, reciting an improvement to the functionality of a computer or other technology or technical field, a “particular machine” to apply or use the judicial exception, a particular transformation of an article to a different thing or state, or any other meaningful limitation beyond generally linking the use of the judicial exception to a particular technological environment, such that the claim as a whole is more than a drafting effort to designed to

monopolize the exception. *See* Guidance, 84 Fed. Reg. at 55. Because Appellant’s bare arguments focus on the additional descriptions recited in claims 2, 5, 6, 15 of the abstract idea recited in claim 1, Appellant’s arguments also are insufficient to demonstrate that claims 2, 5, 6, 15 and 20 recite additional elements that individually, or in combination, are not well-understood, routine, or conventional, such that the additional elements provide significantly more than the abstract idea itself—an inventive concept. *See id.* 56. “What is needed is an inventive concept in the non-abstract application realm.” *SAP*, 898 F.3d at 1168.

For the foregoing reasons, we are not persuaded the Examiner erred in rejecting claims 2, 5, 6, 15, and 20 under 35 U.S.C. § 101. Accordingly, we sustain the Examiner’s rejection of claims 2, 15, and 20 under 35 U.S.C. § 101 as directed to patent-ineligible subject matter.

Dependent Claims 3, 8, 9, 16, and 18

Claim 3 depends from claim 1 and further recites “the campaign criteria is selected from the group consisting of” Claim 16 depends from independent claim 14 and further recites “the campaign criteria includes all of” Claim 8 depends from claim 1 and further recites “the location history for the plurality of user devices identifies time periods when the plurality of user devices were located within a merchant facility or a section of the merchant facility.” Claims 9 and 18 depend from claims 1 and 14, respectively, and further recite “the user device location information is received from one or more location determination devices.” The Examiner finds that the limitations of claims 3, 8, 9, 16, and 18 fail to establish that the claims are not directed to an abstract idea because they recite collecting information. *See* Final Act. 7; Ans. 7.

We are not persuaded by Appellant’s following arguments addressing claims 3, 8, 9, 16, and 18: (1) the claims are not directed to an abstract idea because the features define the specific application and processes of the claimed invention; and (2) the claims recite unconventional steps that confine the claims to a useful application and, therefore, significantly more than the abstract idea itself. *See* Appeal Br. 18–19, 21–23, 33–35; Reply Br. 12, 14–15, 18. In support of its arguments, Appellant merely asserts that claims 3 and 16 recite examples of campaign criteria, and for claims 8, 9, and 18 reproduces the limitations of claims 8, 9, and 18. *See* Appeal Br. 18–19, 21–23, 33–35; Reply Br. 12, 14–15, 18. Claims 3 and 16 describe the additional element “receiving campaign criteria,” recited in claims 1 and 14, as including certain campaign criteria parameters. Claims 8, 9, and 18 describe the additional element of “storing location history,” recited in claims 1 and 14, as including certain types of location history, and the origins thereof. Appellant’s undeveloped arguments are insufficient to demonstrate that claims 3, 8, 9, 16, and 18 recite additional elements that integrate the abstract idea into a practical application by, for example, reciting an improvement to the functionality of a computer or other technology or technical field, a “particular machine” to apply or use the judicial exception, a particular transformation of an article to a different thing or state; or any other meaningful limitation beyond generally linking the use of the judicial exception to a particular technological environment, such that the claim as a whole is more than a drafting effort to designed to monopolize the exception. *See* Guidance, 84 Fed. Reg. at 55. Appellant’s bare arguments also are insufficient to demonstrate that the additional elements individually, or in combination, are not well-understood, routine, or conventional, such that the additional elements provide significantly more

than the abstract idea itself—an inventive concept. *See id.* at 56. As explained above, our reviewing courts have determined that receiving information and storing information, are conventional computer functions. *See OIP*, 788 F.3d at 1363–64, (Fed. Cir. 2015) (gathering statistics generated during testing and storing test results); *Trading Techs. Int’l*, 921 F.3d at 1093 (agreeing with Board’s determination that “receiving market information is simply routine data gathering”).

Accordingly, we are not persuaded the Examiner erred in rejecting claims 3, 8, 9, 16, and 18 under 35 U.S.C. § 101. Therefore, we sustain the Examiner’s rejection of claims 3 and 16 under 35 U.S.C. § 101 as directed to patent-ineligible subject matter.

Dependent Claims 4, 7, and 17

Claim 4 depends from claim 1 and further recites “determining the one or more of the plurality of user devices based on targeted user identified in the campaign criteria.” Claims 7 and 17 depend from claims 1 and 14, respectively, and each further recite “generating a graph representing the location history for a particular user device of the plurality of user devices, and determining an active time period for the particular user device of the plurality of user devices based on generating the graphs.” The Examiner finds that the limitations of these claims fail to establish that the claims are not directed to an abstract idea because they recite analyzing information and displaying results based on the analysis. *See* Final Act. 7; Ans. 7.

We are not persuaded by Appellant’s following arguments addressing claims 4, 7, and 17: (1) the claims are not directed to an abstract idea because the features of claim 4 define the specific application and processes of the invention, and (2) the claims recite significantly more than the alleged abstract idea because it recites unconventional steps that confine the claims

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to a useful application and therefore significantly more than the abstract idea itself. *See* Appeal Br. 19, 21, 34–35; Reply Br. 12, 14, 18. In support of its arguments, Appellant merely reproduces the limitations of claims 4, 7, and 17. *See* Appeal Br. 19, 21, 34–35; Reply Br. 12, 14, 18. Claim 4 further describes the abstract idea recited in claim 1 as including a determination of one or more user devices based on targeted users. And claims 7 and 17 further describe the abstract idea recited in claims 1 and 14 as including generating a graph representing a location history and determining an active time period based on the generated graph. Appellant’s undeveloped arguments reiterating the limitations of claims 4, 7, and 17 are insufficient to demonstrate that claims 4, 7, and 17 recite additional elements that integrate the abstract idea into a practical application by reciting, for example, an improvement to the functionality of a computer or other technology or technical field, a “particular machine” to apply or use the judicial exception, a particular transformation of an article to a different thing or state, or any other meaningful limitation beyond generally linking the use of the judicial exception to a particular technological environment, such that the claim as a whole is more than a drafting effort to designed to monopolize the exception. *See* Guidance, 84 Fed. Reg. at 55. Because Appellant’s arguments focus on the abstract idea recited in claims 4, 7, and 17, Appellant’s arguments also are insufficient to demonstrate that claims 4, 7, and 17 recite additional elements that individually, or in combination, are not well-understood, routine, or conventional, such that the additional elements provide significantly more than the abstract idea itself—an inventive concept. *See id.* 56. “What is needed is an inventive concept in the non-abstract application realm.” *SAP*, 898 F.3d at 1168.

For the foregoing reasons, we are not persuaded the Examiner erred in rejecting claim 4, 7, and 17 under 35 U.S.C. § 101. Accordingly, we sustain the Examiner's rejection of claim 4 under 35 U.S.C. § 101 as directed to patent-ineligible subject matter.

§ 103 Rejection

Appellant argues claims 1 and 9–13 together as a group. *See* Appeal Br. 45–48, 51. Consequently, we choose claim 1 as representative of the group. 37 C.F.R. 41.37(c)(1)(iv). Appellant's arguments addressing independent claims 14 and 19 are substantially identical to the arguments presented addressing claim 1. *Compare* Appeal Br. 51–53, 55–57, *with id.* at 45–48. As a result we choose claim 1 as representative of independent claims 1, 14, and 19.

In rejecting claim 1, the Examiner acknowledges that Mankoff does not disclose, teach, or suggest

determining, by the computing device, active time periods for each the one or more of the plurality of user devices based on the stored location history for the one or more of the plurality of user devices and the campaign criteria, wherein the active time periods correspond to times period in which the campaign is active.

See Final Act. 10. The Examiner finds that Nacer teaches this limitation based on the following disclosure:

by reference number 750, provisioning enforcement device 235 determines that campaign conditions are satisfied (e.g., the connection request is made from Kansas City, a location within the Midwest geographic region, and which matches a campaign condition for the alternative service campaign; the connection request is made on May 2, 2015 and is within the active time period of May 1, 2015-May 8, 2015 for the alternative service campaign, etc.).

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See Final Act. 10 (quoting Nacer Spec. ¶ 99); *see also* Nacer Fig. 7B (diagram showing example implementation).

Appellant argues that “Nacer makes no mention that the active time period is based on the stored location for the one or more plurality of user devices.” Appeal Br. 47; Reply Br. 22. Appellant further contends that although an “active time period” exists in Nacer, there is no teaching as to how that active time period is determined. *See* Appeal Br. 47. In the Answer, the Examiner responds that “[p]aragraph [0099] of Nacer discloses an ‘active time period of May 1, 2015-May 8, 2015’ for the promotional campaign.” Ans. 8.

We agree with Appellant’s arguments. The Examiner does not provide sufficient explanation or direct us to evidence sufficient to demonstrate that Nacer discloses, teaches or suggests that an active time period is determined based on user device location history. *See* Final Act. 10–11; Ans. 8. Nacer instead discloses a dongle device that requests mobile communication services from a provisioning enforcement device of an alternative communications service provider, where the provisioning device determines whether the dongle’s request satisfies conditions of the alternative communications service campaign, which include geographic information and an active time period. *See* Nacer Spec. ¶¶ 94–99, Figs. 7A–7B.

Therefore, we are constrained to reverse the rejection under 35 U.S.C. § 103 of independent claims 1, 14, and 19, and claims 2–13, 15–18, and 20 dependent therefrom, respectively.

Rejection under 35 U.S.C. § 112(a)

The Examiner rejects claim 16 under 35 U.S.C. § 112 (a) for failing to comply with the written description requirement. Final Act. 4. The

Examiner directs attention to the following recitations of claim 16: “wherein the campaign criteria includes all of . . . a section of a merchant facility; and a targeted group of users.” *See id.* The Examiner finds the Specification does not reasonably convey campaign criteria includes all of the limitations recited in claim 16, and instead conveys campaign criteria of one or more of the recited limitations of claim 16. *See id.* (citing Spec. 20).

To comply with the written description requirement of § 112, “the applicant must . . . convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of *the invention*[, which] is, for purposes of the ‘written description’ inquiry, *whatever is now claimed.*” *VasCath v. Mahurkar*, 935 F.2d 1555, 1563–64 (Fed. Cir. 1991). The applicant conveys possession of the invention “by such descriptive means as words, structures, figures, diagrams, formulas, etc., that fully set forth the claimed invention[,] [a]lthough the exact terms need not be used *in haec verba.*” *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997) (citing *Eiselstein v. Frank*, 52 F.3d 1035, 1038 (Fed. Cir. 1995)).

Appellant contends that one of ordinary skill in the art would readily recognize that the description of “one or more” can encompass “all.” *See* Appeal Br. 5. Appellant argues that if a group includes “one or more” of A, B, and C, that group could include A only, B only, C only, A and B only, A and C only, or all of A, B, and C. *See id.* at 5–6. In the Answer, the Examiner asserts that “one or more,” as argued by Appellant, “implies there are many options rather than a requirement for one option (as in all).” Ans. 3. In the Reply Brief, Appellant asserts that, in light of the Examiner’s interpretation, “all” necessarily has written description support because “all”

is, by definition, one of the possible combinations of “one or more.” *See* Reply Br. 2.

Notwithstanding the dispute regarding the meaning of “one or more,” we find that the Specification conveys with reasonable clarity to those skilled in the art that Appellant was in possession of campaign criteria that includes all of the parameters listed in claim 16. Specifically, paragraph 75 of the Specification discloses:

the campaign criteria may include the campaign itself (e.g., an advertisement for discounts, a printable or electronic coupon, etc.), *identification of a target audience* (e.g., direct vs. non-direct shoppers, users in a particular demographic group, all users, etc.), *and* parameters that may be used to define different active time periods for a same campaign based on the location history of different user devices 210. In embodiments, the campaign criteria may include a minimum/maximum threshold number of visits to a merchant facility (or section of the merchant facility), *a minimum/maximum threshold number amount of time spent at a merchant facility (or section of the merchant facility), a date/time range, or the like. Also, the campaign criteria may specify a minimum active time period for the campaign, as is described in greater detail herein.*

Spec. ¶ 75 (emphasis added). In summary, paragraph 75 of the Specification discloses campaign criteria as including all the following parameters recited in claim 16: (1) a time or date range, (2) a minimum or maximum threshold amount of time spent in a merchant facility, (3) a minimum or maximum active time period (i.e., minimum active time period), (4) a section of a merchant facility, and (5) a targeted group of users (i.e., target audience).

For this reason, we are constrained to reverse the rejection of claim 16 under 35 U.S.C. § 112(a).

CONCLUSION

We affirm the Examiner's rejection of claims 1–20 under 35 U.S.C. § 101. We reverse the Examiner's rejection of claims 1–20 and under 35 U.S.C. § 103. We reverse the Examiner's rejection of claim 16 under 35 U.S.C. § 112(a). In summary:

Claims Rejected	35 U.S.C. §	References/Basis	Affirmed	Reversed
1–20	101	Eligibility	1–20	
1–20	103	Mankoff and Nacer		1–20
16	112(a)	Written Description		16
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)(1)(iv).

AFFIRMED