UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/681,198	11/19/2012	Samuel Lessin	26295-20582	3880

87851   7590   02/25/2020
Facebook/Fenwick
Silicon Valley Center
801 California Street
Mountain View, CA 94041

EXAMINER
CARVALHO, ERROL A

ART UNIT	PAPER NUMBER
3622	

NOTIFICATION DATE	DELIVERY MODE
02/25/2020	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

fwfacebookpatents@fenwick.com
ptoc@fenwick.com

UNITED STATES PATENT AND TRADEMARK OFFICE

————————————

BEFORE THE PATENT TRIAL AND APPEAL BOARD

————————————

Ex parte SAMUEL LESSIN and
JUSTIN ALEXANDER SHAFFER

————————————

Appeal 2019-004405
Application 13/681,198
Technology Center 3600

————————————

Before CHARLES N. GREENHUT, JAMES P. CALVE, and
WILLIAM A. CAPP, *Administrative Patent Judges*.

CALVE, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant[1] appeals from the decision
of the Examiner to reject claims 11, 18–20, 29, 30, 34–39, 41, 42, 46–51,
and 53–59. Final Act. 2. Claims 1–10, 12–17, 21–28, 31–33, 40, 43–45,
and 52 are cancelled. *See* Appeal Br. 17–25 (Claims App.). We have
jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

---

[1] "Appellant" refers to "applicant" as defined in 37 C.F.R. § 1.42. Appellant
identifies Facebook, Inc. as the real party in interest. Appeal Br. 1.

CLAIMED SUBJECT MATTER

Claims 11, 39, and 51 are independent with claim 11 is reproduced

below.

11. A method comprising:
        receiving an indication that a plurality of users of an
                online social networking system are currently
                physically located together at a venue, the received
                indication based on one or more posts via a first
                user interface in the online social networking
                system by one or more of the plurality of users
                regarding a current location of the plurality of
                users, the plurality of users physically located at
                the venue forming a targeting cluster for targeting
                of advertisements;
        retrieving a plurality of information items about the
                plurality of users physically located at the venue
                forming the targeting cluster, the plurality of
                information items indicating that at least some of
                the plurality of users physically located at the
                venue are connected to each other within the
                online social networking system;
        retrieving a model that prices targeting clusters, the
                model comprising a plurality of criteria that
                increase the value of the targeting clusters, the
                plurality of criteria including criteria relating to a
                physical location of users of the targeting clusters
                and connections between the users of the targeting
                clusters;
        determining, by a processor, how closely the retrieved
                plurality of information items about the plurality of
                users physically located at the venue forming the
                targeting cluster match the physical location and
                connections criteria of the model;
        determining, by the processor, a price of the targeting
                cluster based on the closeness determination, the
                price increasing based on the number of the
                retrieved plurality of information items that about

> the plurality of users physically located at the
> venue forming the targeting cluster that match the
> physical location and connections criteria of the
> model;
>
> storing the price of the targeting cluster in the online
> social networking system; and
>
> providing to the one or more users of the targeting cluster
> physically located at the venue, an advertisement
> customized for the one or more users based on the
> plurality of users physically located at the venue,
> the advertisement provided to the one or more
> users of the targeting cluster via a second user
> interface.

REJECTIONS

Claims 11, 18–20, 29, 30, 34–39, 41, 42, 46–51 and 53–59 are rejected under 35 U.S.C. § 112, first paragraph, for lack of a written description.

Claims 11, 18–20, 29, 30, 34–39, 41, 42, 46–51 and 53–59 are rejected under 35 U.S.C. § 112, second paragraph, for indefiniteness.

Claims 11, 18–20, 29, 30, 34–39, 41, 42, 46–51 and 53–59 are rejected as directed to patent-ineligible subject matter under a judicial exception to 35 U.S.C. § 101.

Claims 11, 18, 19, 35–39, 47–51 and 56–59 are rejected under 35 U.S.C. § 103(a) as unpatentable over Kramer (US 2008/0306826 A1, pub. Dec. 11, 2008) and Lee (US 2013/0024297 A1, pub. Jan. 24, 2013).

Claim 20 is rejected under 35 U.S.C. § 103(a) as unpatentable over Kramer, Lee, and Kendall (US 2010/0257023 A1, pub. Oct. 7, 2010).

Claims 29, 30, 41, 42, 53, and 54 are rejected under 35 U.S.C. § 103(a) as unpatentable over Kramer, Lee, and Krishnareddy (US 2013/0006777 A1, pub. Jan. 3, 2013).

Claims 34, 46, and 55 are rejected under 35 U.S.C. § 103(a) as unpatentable over Kramer, Lee, and Gyongyi (US 8,560,605 B1, iss. Oct. 15, 2013).

ANALYSIS

*Claims 11, 18–20, 29, 30, 34–39, 41, 42, 46–51 and 53–59
Rejected for Lack of Written Description[2]*

The Examiner determines that the following limitations, which appear in independent claims 11, 39, and 51, are not supported by adequate written description as required by 35 U.S.C. § 112, first paragraph:

> determining, by a processor, how closely the retrieved plurality of information items about the plurality of users physically located at the venue forming the targeting cluster match the physical location and connections criteria of the model;
>
> providing to the one or more users of the targeting physically located at the venue, an advertisement customized for the one or more users based on the plurality of users physically located at the venue, the advertisement provided to the one or more users of the targeting cluster via a second user interface.

Final Act. 2–3; *see* Appeal Br. 17–18, 21, 24–25 (Claims App.).[3]

Regarding the "determining" limitation, the Examiner finds that the Specification describes cluster analysis module 504 generates a score for how closely a received targeting cluster of users matches or best fits characteristics of one or more highly valued populations, "as defined by advertisers and/or administrators of the social networking system 100," but not the physical location and connections criteria of the model. Final Act. 3.

---

[2] The Examiner withdrew the rejection of claims 30, 42, and 54 for lack of written description. *See* Ans. 4; Final Act. 4.
[3] Claim 51 recites these features with somewhat different terms.

Regarding the "providing" limitation, the Examiner finds that the Specification describes offer generation module 306 determines customized offers for users at a venue, and scoring module 312 determines a user is very interested in a particular product, but there is no description of providing a customized advertisement "based on the plurality of users physically located at the venue" and "via a second user interface" as claimed. *Id.* at 3–4.

Appellant does not apprise us of error in the Examiner's findings and determination. Appeal Br. 6–7 (arguing the rejection of claims 30, 42, and 54, but not claims 11, 39, and 51, for lack of written description); 37 C.F.R. § 41.37(c)(1)(iv) (the appeal brief shall explain why the examiner erred as to each ground of rejection). Thus, we sustain this rejection.

Claims 11, 18–20, 29, 30, 34–39, 41, 42, 46–51 and 53–59
Rejected for Indefiniteness

The Examiner determines that the term "how closely" in claims 11, 39, and 51 is a relative term with no standards provided to ascertain its scope. Final Act. 5. Appellant does not present arguments for this rejection. *See* Appeal Br. 6–15. Thus, we summarily sustain this rejection.

Claims 11, 18–20, 29, 30, 34–39, 41, 42, 46–51 and 53–59
Rejected under a Judicial Exception to 35 U.S.C. § 101

Section 101 of the Patent Act defines patent-eligible-subject matter as:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

35 U.S.C. § 101 (2012). However, "[l]aws of nature, natural phenomena, and abstract ideas are not patentable." *Alice Corp. Pty. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014) (citation omitted).

To distinguish patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications, we first determine whether the claims are directed to a patent-ineligible concept. *Id.* at 217. If they are, we consider the elements of each claim, individually and as an ordered combination, to determine if additional elements transform the claim into a patent-eligible application, e.g., by providing an "inventive concept" that ensures the patent amounts to significantly more than a patent on the ineligible concept. *Id.* at 217–218.

The USPTO has issued guidance about this framework. *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) ("Revised Guidance"). Under the Revised Guidance, to determine whether a claim is "directed to" an abstract idea, we evaluate whether the claim recites (1) any judicial exceptions, including certain groupings of abstract ideas listed in the Revised Guidance (i.e., mathematical concepts, certain methods of organizing human activities such as a fundamental economic practice, or mental processes); and (2) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h)). *See* Revised Guidance, 84 Fed. Reg. at 51.

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then consider 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. *Id.* at 56.

Appellant argues the claims as a group. Appeal Br. 7–9. We select claim 11 as representative. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Step 1: Is Claim 11 to a Statutory Category?

We agree with the Examiner that claim 11 recites a method that falls within the process category of 35 U.S.C. § 101. Final Act. 5; *see* Appeal Br. 1 (asserting that claim 11 recites a method).

Alice Step 1, Revised Step 2A, Prong One: Are Judicial Exceptions Recited?

The Examiner determines that, although claim 11 is directed toward a statutory category of invention, nonetheless, it is directed toward a judicial exception because it recites abstract ideas. Final Act. 6. The Examiner finds that the claimed steps of "receiving an indication," "retrieving a model," "determining . . . how closely the retrieved plurality of information items . . . match," "determining . . . a price of the targeting cluster," and "providing to one or more users" recite abstract ideas that recent court decisions identified as using advertising as an exchange or currency in *Ultramercial*, collecting and comparing known information in *Classen*, performance of financial transactions in *buySAFE*, and tailoring content based on a user's personal characteristics including a user's location in *Intellectual Ventures v. Capital One Bank*. Final Act. 6 (reciting the entire text of each limitation).

Appellant asserts the "examiner fails to clearly identify in the FOA what he believes to be the abstract idea presented in the pending claims." Appeal Br. 7. Appellant argues that the Examiner's identification of various limitations abstract ideas "never actually articulates what he believes to be the alleged abstract idea." *Id.* Appellant argues that receiving an indication, retrieving a plurality of information, determining how closely the retrieved information, and storing the price are not abstract ideas. *Id.* at 7–8.

We agree with the Examiner's analysis that claim 11 recites abstract ideas. Under the 2019 Revised Guidance, these abstract ideas are "certain methods of organizing human activity [including] commercial or legal interactions [for] advertising, marketing or sales activities or behaviors [and] managing personal behavior or relationships or interactions between people (including social activities . . .)." Revised Guidance, 84 Fed. Reg. at 52.

The first step recites

> receiving an indication that a plurality of users of an online social networking system are currently physically located together at a venue, the received indication based on one or more posts via a first user interface in the online social networking system by one or more of the plurality of users regarding a current location of the plurality of users, the plurality of users physically located at the venue forming a targeting cluster for targeting of advertisements;

Appeal Br. 17 (Claims App.). This step receives information about social activities, personal behaviors, relations, and interactions of people of an online social networking system and their organization by location and venue in order to organize commercial interactions involving advertising, marketing, and sales activities recited in subsequent steps of the claim.

The Specification makes clear that this step pertains to advertising as "[a]dvertisements are served to users of an online system" and "[a]n ad may be given a greater value if a user is near more friends, more people who have a specific interest, more people who have a high affinity for a brand, and/or surrounded by more people in general." Spec. ¶ 5. This step is a precursor to later steps to organize this human activity to identify "a highly targeted audience [that] may be available for purchase" by an advertiser. Id. ¶ 27. Toward this end, action log 218 tracks user actions/interactions. Id. ¶ 38.

> The next step furthers the advertising, marketing, and sales activity by
>
> retrieving a plurality of information items about the plurality of users physically located at the venue forming the target cluster, the plurality of information items indicating that at least some of the plurality of users physically located at the venue are connected to each other within the online social networking system;

Appeal Br. 17 (Claims App.). This steps organizes the online social network users into "targeting clusters" for advertising, marketing, and sales purposes.

Ultimately, this process allows a purveyor of a social network system to monetize the users of the social network by auctioning targeting clusters of the users to advertisers who deliver targeted advertising to the users based on location, actions, preferences, and interests. Spec. ¶¶ 3–5, 17, 22, 25, 43–45, 48–79. "[A]n ad may be worth more if a user is near more friends, more people with a certain interest, more people with a high affinity for a brand, or just more people in general." *Id.* ¶ 72.

> The next step recites this advertising, marketing, and sale activity as
>
> retrieving a model that prices targeting clusters, the model comprising a plurality of criteria that increase the value of the targeting clusters, the plurality of criteria including criteria relating to a physical location of users of the targeting clusters and connections between the users of the targeting clusters;

Appeal Br. 17 (Claims App.). The expected value of the plurality of users is based on the retrieved plurality of information items and matching the users to one or more valued populations. *Id.* ¶ 77. Paragraph 77 also provides:

> Highly valued populations may include high-income users, highly-educated users, users that travel frequently, users that use the Internet heavily, users that have a car, users having a good time with close friends, users with children, married users, users that are homeowners, and so on.

The next steps determine how closely retrieved information matches the physical locations and connections criteria of the model and determine a price of the targeting cluster based on a closeness determination as follows:

> determining, by a processor, how closely the retrieved plurality of information items about the plurality of users physically located at the venue forming the targeting cluster match the physical location and connections criteria of the model;
>
> determining, by the processor, a price of the targeting cluster based on the closeness determination, the price increasing based on the number of the retrieved plurality of information items that about the plurality of users physically located at the venue forming the targeting cluster that match the physical location and connections criteria of the model;

Appeal Br. 17–18 (Claims App.). Like the previous steps, these steps also organize the human activity involved in advertising, marketing, and sales.

> For example, advertisers may highly value users that are currently with connected users for which they have high affinity and also currently located at the same venue. Advertisers may wish to associate their brands with the users and their close friends having a good time. The data retrieval module 502 may retrieve the user connections, affinity scores, current locations, and interests from the social networking system 100 to determine this information for a targeting cluster of users that comprises users that are currently located a particular venue, for example.

Spec. ¶ 70. "[D]ifferent scoring models may be used that include different factors based on information retrieved about a viewing user, other users connected to the viewing user on the social networking system 100, the different venues, the different types of venues, and the advertisements." *Id.* ¶¶ 66. Regression analysis and machine learning may be used to identify a targeting cluster that is a highly valued population for pricing. *Id.* ¶ 74.

The final steps store the price of the targeting cluster and provide to one or more users of the targeting cluster at the venue an advertisement that is customized for the user(s) based on the other users at the venue via a second user interface. Appeal Br. 17–18 (Claims App.). These steps also involve organizing human activity for marketing, advertising, and sales by targeting users based on their social activities and personal interactions.

Targeted advertising based on a user's location and personal profile have been held to be abstract ideas when they are recited at a high level of generality without any corresponding technical innovation or improvement. *See Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1370 (Fed. Cir. 2015) (tailored information presented to a user based on particular information is an abstract idea); *Affinity Labs of Texas, LLC v. Amazon.com, Inc.,* 838 F.3d 1266, 1271 (Fed. Cir. 2016) (customizing a user interface to provide targeted advertising based on user information is an abstract idea); *see also Bridge and Post, Inc. v. Verizon Commc'ns, Inc.*, 778 F. App'x 882, 887 (Fed. Cir. 2019) (non-precedential) ("Targeted marketing is a form of 'tailoring information based on [provided] data,' which we have previously held is an abstract idea."). In *Bridge and Post*, the method used *location-centric information*, historic information, usage patterns, and *user profiles* to identify a *group* with which a user is associated to determine a directed media component to provide to the user or the group. *Bridge and Post*, 778 F. App'x at 886–87.

Accordingly, we determine that claim 11 recites certain methods of organizing human activity involving commercial advertising, marketing, and sales activities based on social activities and interactions of users of a social network. Reply Br. 2 (claims arguably involve organizing human activity).

11

We also consider Appellant's argument that claim 11 does not recite an abstract idea because

> the claims specifically use technology to link the physical presence of the user to the online environment, including via the recitations of an online social networking system, receiving posts via a first user interface in the online social networking system, and providing information to users in the cluster via a second user interface.

Appeal Br. 8 (citing *Core Wireless Licensing S.A.R.L. v. LG Elecs., Inc.,* 880 F.3d 1356, 1362 (Fed. Cir. 2018).

This argument is not persuasive because, as discussed above, claim 11 recites broad abstract ideas rather than specific technical improvements to computers or other technology. If technical improvements are made to the social networking system, first user interface, or second user interface, those improvements are not recited in claim 11. Instead, claim 11 recites generic components that perform generic functions.

The online social networking system receives and sends information to and from users of the system over a network that is not claimed. Users can "post" information via a first user interface, which is claimed generically as a device that permits a user to enter information and communicate with an online network system. The second user interface provides an advertisement to a user(s) of a group. Claim 11 does not recite the elements as innovations in computers or technology. *Credit Acceptance Corp. v. Westlake Svcs.*, 859 F.3d 1044, 1056 (Fed. Cir. 2017) (noting that the output of data analysis can be abstract); *Mortg. Grader, Inc. v. First Choice Loan Serv. Inc.,* 811 F.3d 1314, 1324–25 (Fed. Cir. 2016) (claims reciting an "interface," "network," and a "database" are nevertheless directed to an abstract idea).

The decision in *Core Wireless* illustrates the distinction. The claims in *Core Wireless* were directed to an improved interface for a mobile device that displayed an application summary of applications in unlaunched states so that users could quickly navigate to desired applications to find the data of interest in three steps from startup as compared to known devices that required a user to scroll around and switch views many times to find the right data/functionality. *Core Wireless Licensing S.A.R.L. v. LG Electronics, Inc.,* 880 F.3d 1356, 1362–63 (Fed. Cir. 2018). The user interface improved efficiency of electronic devices with small screens by providing "a limited list of common functions and commonly accessed stored data" accessible directly from the main menu rather than requiring users to "drill down through many layers to get to the desired data or functionality." *Id.* at 1363.

Here, claim 11 recites generic user interfaces and a network system. The network "may comprise any combination of local area and/or wide area networks, both wired and wireless communication systems" and may "use standard communications technologies and/or protocols." Spec. ¶ 30. The network may use linking technologies such as Ethernet, 802.11, worldwide interoperability for microwave access (WiMAX), 3G, 4G, CDMA, digital subscriber line (DSL), etc." *Id.* (listing various networking protocols and data transfer protocols as TCP/IP, UDP, HTTP, SMTP, FTP, HTML, XML, SSL, TLS, and IPsec). There is no indication that Appellant invented any of these features or improved their functionality even if we could read these features into claim 11, which we cannot. *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993); *see also In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004) ("[T]his court counsels the PTO to avoid the temptation to limit broad claim terms solely on the basis of specification passages.").

> Regarding the claimed first and second user interfaces:
>
> A content presentation module 110 may provide various types of content to viewing user devices 124 in a social networking user interface 130 operating on each viewing user device 124, including advertisements selected by an advertiser that purchased a venue where the viewing user devices 124 are currently located.

Spec. ¶ 22. Figure 1 of Appellant's disclosure illustrates social networking user interface 130 as a box. An ad may be received through an application programming interface (API) request. *Id.* ¶ 68.

Therefore, we again determine that claim 11 recites the abstract idea indicated above.

Alice Step 1, Revised Step 2A, Prong Two: Is There an Integration?

We next consider whether claim 11 recites additional elements that integrate the abstract ideas into a practical application. Revised Guidance, 84 Fed. Reg. at 54 (Revised Step 2A, Prong Two).

> Appellant argues that
>
> the claims specifically use technology to link the physical presence of the user to the online environment, including via the recitations of an online social networking system, receiving posts via a first user interface in the online social networking system, and providing information to users in the cluster via a second user interface.

Appeal Br. 8. Appellant also argues that this arrangement is unconventional in combining the physical location of users with the online context of both receiving and presenting the user with information via an online interface that leverages both physical location information and rich data of the online social networking system about the user and the user's connections. *Id.* at 9.

14

Appellant's arguments are not persuasive for two primary reasons. First, claim 11 recites the features at such a high level of generality that the recited features are abstract ideas rather than technical improvements made to networks, computers, or user interfaces sufficient to integrate the abstract ideas into a practical application. *See* Revised Guidance, 84 Fed. Reg. at 55.

Second, as a result, any innovation resides in the realm of the abstract ideas recited in claim 11 rather than a technical improvement to a particular technology that is integral to the claim. The social network system operates as expected. It connects users to one another and to the system so users can share information with one another via the system. *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017) ("Adding one abstract idea (math) to another abstract idea (encoding and decoding) does not render the claim non-abstract."). *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016) ("a claim for a *new* abstract idea is still an abstract idea."); *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306, 1335 (Fed. Cir. 2015) (claims that improved an abstract idea, but not a computer's performance, were held unpatentable).

Claim 11 recites a solution to a business issue, namely, how to market and advertise to users more effectively. The solution markets to users based on their connections (targeting clusters) and desired attributes (highly valued individuals) using generic technology as a tool. We determine that such implementation does not integrate the abstract ideas into a practical application. *See Accenture Glob. Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1345 (Fed. Cir. 2013) ("simply implementing an abstract concept on a computer, without meaningful limitations to that concept, does not transform a patent-ineligible claim into a patent-eligible one").

Indeed, Appellant contends as much by asserting that:

> The claimed method determines a price for an ad that varies based on whether the user is near more of their friends (i.e., their connections within the social network). This *concept* is *built on the idea* that one user can influence another or a group of users and, therefore, an ad system quantifies this information to vary the price of serving an ad to such a user based on how many other people may be influenced by the user to take action in accordance with content presented in the ad based on the location and real-time social network activity of those users.

Reply Br. 4 (emphasis added).

Claim 11, in effect, recites abstract ideas with the words "apply it" and uses computers as tools to implement the abstract ideas. These features do not integrate these abstract ideas into a practical application. *See* 2019 Revised Guidance, 84 Fed. Reg. at 55; *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 223 (2014) ("*Mayo* made clear that transformation into a patent eligible application requires 'more than simply stat[ing] the [abstract idea] while adding the words "apply it.""") (citation omitted).

Even if we assume that the techniques claimed are "[g]roundbreaking, innovative, or even brilliant," that is not enough for eligibility. *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 591 (2013); *accord buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1352 (Fed. Cir. 2014). Nor is it enough that a claimed technique is novel and nonobvious over prior art. *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1162 (Fed. Cir. 2018).

For the foregoing reasons, we determine claim 11 does not integrate the abstract ideas recited therein into a practical application.

Alice Step 2, Revised Step 2B — Inventive Concept

We next consider whether claim 11 recites any elements, individually, or as an ordered combination, that provide an inventive concept. *Alice*, 573 U.S. at 217–18. "The second step of the *Alice* test is satisfied when the claim limitations involve more than performance of well-understood, routine [and] conventional activities previously known to the industry." *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1367 (Fed. Cir. 2018) (internal quotations and citation omitted); *see also* Revised Guidance, 84 Fed. Reg. at 56 (explaining that the second step of the *Alice* analysis considers whether a claim adds a specific limitation beyond a judicial exception that is not "well-understood, routine, conventional" activity in the field).

We agree with the Examiner that the limitations of claim 1 considered individually recite abstract ideas and information collection, analysis, and output activities with a generic social networking system, user interface, and processor that recite the abstract ideas in a social networking environment. Final Act. 7. Considered as a combination, the limitations merely instruct the practitioner to implement the abstract idea with high-level, generic technology executing generic functions. *Id.*

USPTO Memorandum of April 19, 2018, ''Changes in Examination Procedure Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (*Berkheimer* v. *HP, Inc.*)" (Apr. 19, 2018), *available at https://www.uspto.gov/sites/default/ files/documents/memo-berkheimer-20180419.PDF* (*Berkheimer* memo) indicates that the Specification may describe additional elements in a manner that indicates the elements are sufficiently well-known that the specification need not describe their particulars to satisfy 35 U.S.C. § 112(a). *See Berkheimer* memo at 3–4.

As discussed above, the Specification describes the social networking system, processor, and user interfaces as generic components that perform generic functions. The brief description of these elements indicates they are WURC features that do not add significantly more than the abstract ideas. *See* Spec. ¶¶ 28–30, 45, 48–56, 68–78. We therefore determine claim 11 does not recite any elements, individually, or as an ordered combination, that provide an inventive concept to transform the abstract idea into a patent-eligible application. *See Berkheimer v. HP Inc.*, 890 F.3d 1369, 1374 (Fed. Cir. 2018) (Moore, J., concurring) ("*Berkheimer* . . . leave[s] untouched the numerous cases [that] held claims ineligible because the only alleged 'inventive concept' is the abstract idea.).

Thus, we sustain the rejection of claim 11 and claims 18–20, 29, 30, 34–39, 41, 42, 46–51, and 53–59, which fall therewith, as directed to patent-ineligible subject matter under a judicial exception to 35 U.S.C. § 101.

Claims 11, 18, 19, 35–39, 47–51 and 56–59
Rejected over Kramer and Lee

Appellant argues the claims as a group. Appeal Br. 10–15. We select claim 11 as representative. *See* 37 C.F.R. § 41.37(c)(1)(iv). For claim 11, the Examiner finds that Kramer receives an indication that plural users of an online social networking system are physically located together at a venue and some users are connected to each other to form a targeting cluster, but Kramer does not use this model to price the targeting cluster using criteria that increase the value of the targeting clusters and determine a price of the targeting cluster based on a closeness determination. Final Act. 8–10. The Examiner relies on Lee to teach these features and storing the price of the targeting cluster in the online social networking system. *Id.* at 9–10.

The Examiner determines it would have been obvious to a skilled artisan to modify Kramer with the teachings of Lee "to generate a purchase request/price for a targeted user group based on at least one targeting condition" as Lee teaches. *Id.* at 10.

Appellant argues that Kramer does not teach the step of "receiving an indication that a plurality of users of an online social networking system are currently physically located together at a venue . . . [and] forming a targeting cluster for targeting of advertisements." Appeal Br. 10. Appellant argues that the members located at the venue are individual members rather than a cluster or group, and the groups that users may establish for their interaction with the system are not groups of users at a venue and are not grouped by the system. *Id.* at 11. Appellant also argues that Kramer teaches individual users targeted to receive ads sent by advertisers. *Id.*

Appellant does not dispute that Kramer targets advertising to users of a social networking system based on their posts and physical locations at a venue. Appeal Br. 11 (*individual members* may be rewarded for sharing their location at a venue). Appellant argues, however, that Kramer does not teach similar location-based, targeted advertising to *groups* of members as "users physically located at the venue are connected to each other within the online social networking system" as recited in claim 11. *See id.* at 10–12.

We agree with the Examiner Kramer teaches this feature. Kramer allows individual members of the social networking system to form Groups with Leaders and Friends lists that are publicly available to other members to facilitate networking. Kramer ¶¶ 85–88, 299–303. Individuals form groups of friends who may be treated as a group for visibility, messaging, and *other purposes*. *Id.* ¶ 303. These other purposes include advertising.

19

Kramer also tracks the locations of members and groups of members and friends at locations and venues. In this regard, Kramer tracks member locations in relation to venues such as night clubs to determine targeted ads to send to the member. *Id.* ¶ 19. Member profiles may include "preferred customer" status. *Id.* ¶ 27. Kramer's system not only tracks locations of individual members at or near venues, but Kramer also consolidates and presents real-time venue demographic data to other members including a list of other members present at each venue. *Id.* ¶ 92. A system venue view displays current members present at the venue with their demographics and current advertising offers. *Id.* ¶¶ 137–42. Members use their mobile phones to view promotions currently offered to them. *Id.* ¶ 195. Members within different demographics groups typically see different promotions. *Id.*

Venues can send promotions directly to a mobile phone of one user or *a group of members*. *Id.* ¶ 196. Members at a club are listed individually or *as a group* using customized filters. *Id.* ¶ 356. Thus, the system can follow members in the groups that they form with others, and members can select to view My Friends and My Groups at a venue. *Id.* ¶¶ 379–80, 391–94, 478.

The system "brings together mobile communication device users and venues" and "venues pay to send offers to members." *Id.* ¶ 482. Venues can market customized offers directly to members using demographics, location, time, VIP status and to *the group* including the venue that the member/group is at presently. *Id.* ¶¶ 168, 196, 445, 446, 487, 489, 493–495.

Therefore, Kramer allows members to form groups as My Friends and My Groups. Kramer tracks the groups at locations and venues so members can connect with others friends in their group who are at that venue, and businesses can market/advertise promotions to members *and their groups*.

20

Individual members rank clubs according to whether most of the members there belong to My Friends or one of My Groups. *Id.* ¶¶ 317, 318. Individual members also receive Alerts according to the Groups to which they belong. *Id.* ¶ 329. Club details at a venue include a list of members and their groups. *Id.* ¶ 354–56. Members may organize as My Friends and as Groups based on demographic data. *Id.* ¶¶ 73–90. Therefore, Kramer sends ads and promotions to groups with desired demographic criteria at a venue and also selectively targets ads to a group (a targeting cluster) that matches a promoter's demographic and group connection criteria as claimed.

Members of the social network can view customized ads offered to them as individuals or member of a demographic group. *Id.* ¶ 195. Venues send promotions to mobile phones of members and *groups* of members. *Id.* ¶ 196. The system stores information for traits, locations, and behaviors of member and venues, and promoters forward promotional materials to system members including members of a desired demographic group, which would include groups of friends or groups of individual members formed as social networks in the system. *Id.* ¶¶ 12, 13. Clubs send targeted advertisements to members based on their location at or relative to a club. ¶ 19. Kramer uses special pricing models for members classified as a "nightclub candidate" or a "preferred customer" who receives special targeted incentives to encourage their attendance at a particular club. *Id.* ¶¶ 19–27. Venues offer different incentives to one group than another. *Id.* ¶ 445 ("NoCoverCharge" for one group; "2 for 1" offer for another group"). The system thus brings together users and venues that pay to send offers to members and *groups* based on the demographics, venue, and current location of the members and connections of their *groups* as claimed. *Id.* ¶¶ 196, 446, 465, 482, 487, 488.

21

Kramer therefore uses a pricing model that prices member groups or "targeting clusters" based on the physical location and demographics of the members of the group to include connections between members of the group and prices promotions or offers according to the demographics of the group and its members and their location. Kramer sends ads to the members of a group based on matching criteria such as location, VIP or preferred status, demographics, behaviors, location, and time. *Id.* ¶¶ 168, 195, 196, 445, 446, 487.

Lee uses pricing models for groups or targeting clusters based on a location where a user is positioned and "targeting conditions." Lee ¶¶ 130, 188, 189. Businesses determine targeting conditions based on location and profile information to generate a *user group* that is a marketing target and bid for that user group based on the targeting conditions. *Id.* ¶¶ 108, 188. Like Kramer, the groups are formed by interactions on a *social network* in Lee. *Id.* ¶ 49.

Lee's pricing model attributes cost increases for a marketing message sent to a user group as a "weight assignment" based on the assignment of additional targeting conditions (conditions used to generate a marketing targeting group) to a *target group*. *Id.* ¶ 112. Lee's pricing model compares a targeting condition(s) of a user or a group to a targeting condition(s) set by an owner (i.e., a criteria of the model as claimed) to determine if a marketing message can be issued to a user. *Id.* ¶ 129 (targeting may be set by bidding).

The targeting information/conditions that make up a pricing model are used to classify a user group and affect pricing thereby. *See id.* ¶¶ 112, 129. Lee thus uses targeting conditions and customized marketing based on users' locations, demographics, and purchase power. *See id.* ¶¶ 129–33, 188–89.

Lee teaches the benefits of customized advertising and offers to send to groups (clusters) of users connected on a social network. The teachings complement Kramer's targeted advertising to groups (clusters) of user who are connected on a social networking system and located at the same venue. Lee's teachings would improve Kramer's system similarly. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007).

Thus, we sustain the rejection of claim 11 and claims 18, 19, 35–39, 47–51 and 56–59, which fall with claim 11.

Rejections of Dependent Claims 20, 29, 30, 34, 41, 42, 46, and 53–55

Appellant argues that the references relied on to reject claims 20, 29, 30, 34, 41, 42, 46, and 53–55 do not remedy the deficiencies of Kramer and Lee and thus all pending claims are patentably distinguishable over the cited references. Appeal Br. 15. To the extent this argument asserts patentability of these claims based on their dependency from an independent claim[4], this argument is not persuasive for the reasons discussed above for the rejection of the independent claims. This argument also does not allege error by the Examiner in rejecting these dependent claims (37 C.F.R. § 41.37(c)(1)(iv) (each ground of rejection contested by an appellant must be argued under a separate heading identifying the ground of rejection, claim number, statutory basis, and applied reference(s) explaining why the examiner erred as to each ground of rejection so contested)). Thus, we sustain the rejections of these dependent claims as well.

---

[4] Claims 20, 29, 30, and 34 depend directly from claim 11. Claims 41, 42, and 46 depend directly from independent claim 39. Claims 53–55 depend directly from independent claim 51. *See* Appeal Br. 18–25 (Claims App.).

CONCLUSION

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
11, 18–20, 29, 30, 34–39, 41, 42, 46–51 53–59	112, first paragraph	Lack of written description	11, 18–20, 29, 30, 34–39, 41, 42, 46–51 53–59	
11, 18–20, 29, 30, 34–39, 41, 42, 46–51 53–59	112, second paragraph	Indefiniteness	11, 18–20, 29, 30, 34–39, 41, 42, 46–51 53–59	
11, 18–20, 29, 30, 34–39, 41, 42, 46–51 53–59	101	Patent eligibility	11, 18–20, 29, 30, 34–39, 41, 42, 46–51 53–59	
11, 18, 19, 35–39, 47–51, 56–59	103(a)	Kramer, Lee	11, 18, 19, 35–39, 47–51, 56–59	
20	103(a)	Kramer, Lee, Kendall	20	
29, 30, 41, 42, 53, 54	103(a)	Kramer, Lee, Krishnareddy	29, 30, 41, 42, 53, 54	
34, 46, 55	103(a0	Kramer, Lee, Gyongyi	34, 46, 55	
1–3, 6–8, 10–12, 15–21	101	Patent eligibility	1–3, 6–8, 10–12, 15–21	
Overall Outcome			11, 18–20, 29, 30, 34–39, 41, 42, 46–51, 53–59	

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).

<u>AFFIRMED</u>