AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method comprising:

maintaining, by an online system, one or more advertising policies identifying one or more positions in a newsfeed of content items in which advertisements may not be presented, the online system presenting content items and advertisements to a user of the online system in the newsfeed within a limited display space in a user interface;

receiving, by the online system, information describing an advertisement request from an advertiser;

retrieving prior interactions by the user with content items presented by the online system from information maintained by the online system;

determining a likelihood of the user performing one or more interactions with the advertisement included in the advertisement request based at least in part on the prior interactions by the user with the content items presented by the online system;

determining that the likelihood of the user performing the one or more interactions with the advertisement including the advertisement request is greater than a threshold likelihood;

responsive to determining that the likelihood of the user performing the one or more interactions with the advertisement is greater than the threshold likelihood, generating a modification to the one or more of the advertising policies, the modification to the one or more advertising policies allowing insertion of the advertisement into a position in the newsfeed identified by the one or more

advertising policies as one of the identified positions in the newsfeed of content items in which advertisements may not be presented;

selecting, for inclusion in the newsfeed in compliance with the generated modification, the advertisement for inclusion in the newsfeed in the position identified by the one or more advertising policies, a plurality of content items, and one or more additional advertisements; and

providing, by the online system, the newsfeed including the selected content items and advertisements within the limited display space in the user interface to a client device for presentation to the user.

2. (Canceled)

3. (Previously presented) The method of claim 1, wherein the threshold value is based at least in part on likelihoods of the user interacting with one or more content items identified as eligible for inclusion in the newsfeed of content items.

4. (Previously presented) The method of claim 1, wherein generating the modification to the one or more of the advertising policies comprises:

determining likelihoods of the user interacting with one or more content items identified as eligible for inclusion in the newsfeed based on prior interactions by the user with content items;

ranking the likelihood of the user interacting with the advertisement and the likelihoods of the user interacting with the one or more content items identified as eligible for inclusion in the newsfeed; and

modifying one or more of the advertising policies if the likelihood of the user performing one or more interactions with the advertisement has at least a threshold position in the ranking.

5. (Previously presented) The method of claim 1, wherein generating the modification to the one or more of the advertising policies comprises:

determining to modify one or more of the advertising policies; and

ignoring one or more of the advertising policies in response to determining to modify one or more of the advertising policies.

6. (Previously presented) The method of claim 1, wherein generating the modification to the one or more of the advertising policies comprises:

determining to modify one or more of the advertising policies; and

modifying one or more advertising policies to increase a likelihood of the advertisement being selected for inclusion in the newsfeed of content items.

7. (Previously presented) The method of claim 6, wherein modifying one or more advertising policies comprises:

modifying an advertising policy based at least in part on the likelihood of the user performing one or more interactions with the advertisement included in the advertisement request.

8. (Canceled)

9. (Previously presented) The method of claim 1, wherein the one or more advertising policies include a minimum distance between positions in which advertisements are presented in the newsfeed.

10. (Previously presented) The method of claim 1, wherein the one or more advertising policies include a minimum number of content items presented in the newsfeed between advertisements presented in the newsfeed.

11. (Previously presented) The method of claim 1, wherein selecting, for inclusion in the newsfeed in compliance with the generated modification, the advertisement for inclusion in the newsfeed in the position identified by the one or more advertising policies, a plurality of content items, and one or more additional advertisements comprises:

ranking the advertisement for inclusion in the position, the plurality of content items, and the one or more additional advertisements based at least in part on a bid amount associated with the advertisement for inclusion in the position and bid amounts associated with the one or more additional advertisements; and

selecting content items for presentation to the user via the newsfeed of content items based at least in part on the ranking and the generated modification.

12. (Previously presented) A computer program product comprising a non-transitory computer readable storage medium having instructions encoded thereon that, when executed by a processor, cause the processor to:

maintain, by an online system, one or more advertising policies identifying one or more positions in a newsfeed of content items in which advertisements may not be presented, the online system presenting content items and advertisements to a user

of the online system in the newsfeed within a limited display space in a user interface;

receive, by the online system, information describing an advertisement request from an advertiser;

retrieve prior interactions by the user with content items presented by the online system from information maintained by the online system;

determine a likelihood of the user performing one or more interactions with the advertisement included in the advertisement request based at least in part on the prior interactions by the user with the content items presented by the online system;

responsive to determining that the likelihood of the user performing the one or more interactions with the advertisement is greater than a threshold likelihood, generate a modification to the one or more of the advertising policies, the modification to the one or more advertising policies allowing insertion of the advertisement into a position in the newsfeed identified by the one or more advertising policies as one of the identified positions in the newsfeed of content items in which advertisements may not be presented;

select, for inclusion in the newsfeed in compliance with the generated modification, the advertisement for inclusion in the newsfeed in the position identified by the one or more advertising policies, a plurality of content items, and one or more additional advertisements; and

provide, by the online system, the newsfeed including the selected content items and advertisements to a client device within the limited display space in the user interface of the client device for presentation to the user.

13. (Canceled)

14. (Previously presented) The computer program product of claim 12, wherein the threshold value is based at least in part on likelihoods of the user interacting with one or more content items identified as eligible for inclusion in the newsfeed of content items.

15. (Previously presented) The computer program product of claim 12, wherein generate the modification to the one or more of the advertising policies based at least in part on the likelihood of the user performing one or more interactions with the advertisement included in the advertisement request comprises:

determine likelihoods of the user interacting with one or more content items identified as eligible for inclusion in the newsfeed based on prior interactions by the user with content items;

rank the likelihood of the user interacting with the advertisement and the likelihoods of the user interacting with the one or more content items identified as eligible for inclusion in the newsfeed; and

modify one or more of the advertising policies if the likelihood of the user performing one or more interactions with the advertisement has at least a threshold position in the ranking.

16. (Previously presented) The computer program product of claim 12, wherein generate the modification to the one or more of the advertising policies based at least in part on the

likelihood of the user performing one or more interactions with the advertisement included in the advertisement request comprises:

determine to modify one or more of the advertising policies; and

ignore one or more of the advertising policies in response to determining to modify one or more of the advertising policies.

17. (Previously presented) The computer program product of claim 12, wherein generate the modification to the one or more of the advertising policies based at least in part on the likelihood of the user performing one or more interactions with the advertisement included in the advertisement request comprises:

determine to modify one or more of the advertising policies; and

modify one or more advertising policies to increase a likelihood of the advertisement being selected for inclusion in the newsfeed of content items.

18. (Previously presented) The computer program product of claim 17, wherein modify one or more advertising policies comprises:

modify an advertising policy based at least in part on the likelihood of the user performing one or more interactions with the advertisement included in the advertisement request.

19. (Previously presented) The computer program product of claim 12, wherein the one or more advertising policies include a minimum distance between positions in which advertisements are presented in the newsfeed.

20. (Previously presented) The computer program product of claim 12, wherein select, for inclusion in the newsfeed in compliance with the generated modification, the

advertisement for inclusion in the newsfeed in the position identified by the one or more advertising policies, a plurality of content items, and one or more additional advertisements comprises:

rank the advertisement for inclusion in the position, the plurality of content items, and the one or more advertisements based at least in part on a bid amount associated with the advertisement for inclusion in the position and the amounts associated with the one or more additional advertisements; and

select content items for presentation to the user via the newsfeed of content items based at least in part on the ranking and the generated modification.

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EXAMINER	
TOKARCZYK, CHRISTOPHER B	

ART UNIT	PAPER NUMBER
3622	

NOTIFICATION DATE	DELIVERY MODE
11/26/2018	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

Office Action Summary	Application No. 14/562,547	Applicant(s) Tang, Yi	
	Examiner CHRISTOPHER B TOKARCZYK	Art Unit 3622	AIA Status Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☑ Responsive to communication(s) filed on 4 OCTOBER 2018.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☑ This action is **FINAL.** 2b)☐ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) ☑ Claim(s) 1,3-7,9-12 and 14-20 is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6) ☐ Claim(s) _____ is/are allowed.

7) ☑ Claim(s) 1,3-12 and 14-20 is/are rejected.

8) ☐ Claim(s) _____ is/are objected to.

9) ☐ Claim(s) _____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to **PPHfeedback@uspto.gov.**

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

4) ☐ Other: _____.

DETAILED ACTION

Notice of Pre-AIA or AIA Status

1. The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

Status of Application

2. This action is in reply to the reply filed October 4, 2018 (hereinafter "Reply").

3. Claims 1 and 12 are amended.

4. Claims 2, 8, and 13 are canceled.

5. Claims 1, 3-7, 9-12, and 14-20 are pending.

Claim Rejections - 35 U.S.C. § 101

6. 35 U.S.C. 101 reads as follows:

> 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.

7. **Claims 1, 3-7, 9-12, and 14-20** are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. Claims 1-20 are directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an abstract idea) but do not include additional elements that are sufficient to amount to significantly more than the judicial exception.

Step 1

Claims 1, 3-7, 9-12, and 14-20 are directed to a process, machine, manufacture, or composition of matter.

Step 2A

Claims 1, 3-7, 9-12, and 14-20 are directed to abstract ideas, as explained below.

Claims 1 and 12 recite the following limitations. **Claim 1** recites maintaining one or more advertising policies identifying positions is a newsfeed of content items in which advertisements may not be presented, receiving information, retrieving prior interactions, determining a likelihood, determining that the likelihood is greater than a threshold, generating a modification to the one or more advertising policies responsive to the previous determination, the modification allowing insertion of the advertisement into a position identified as one in which advertisements may not be presented, selecting the advertisement for inclusion in the newsfeed in the position identified by the one or more advertising policies, a plurality of content items and additional advertisements, and providing the newsfeed. **Claim 12** recites similar limitations.

These limitations describe abstract ideas that correspond to concepts identified as abstract ideas by the courts as a "an idea 'of itself'"—such as collecting and comparing known information (*Classen*), collecting, displaying, manipulating data (*Int. Ventures v. Cap One Financial*), collecting information, analyzing it, and displaying certain results of the collection and analysis (*Electric Power Group*), obtaining and comparing intangible data (*Cybersource*), organizing information through mathematical correlations (*Digitech*), and generating a second menu from a first menu and sending the second menu to another location (*Ameranth*)—for the following reasons. First, like the concepts in these decisions, the claimed maintaining, receiving, retrieving, determining, generating, selecting, and providing are (i) uninstantiated concepts, plans, or schemes and (ii) mental processes that can be performed in the human mind or by a human using a pen and paper. Second, like the concepts in *Classen*, these claim features facilitate collecting and comparing known information of content, content displayed in a feed, and ad policies. Third, like the concepts in *Int. Ventures v. Cap One Financial*, these claim features facilitate collecting, displaying, and manipulating information about content, content displayed in a feed, and ad policies. Fourth, like the concepts in *Electric Power Group*, these claim features facilitate collecting information of content, content displayed in a feed, and ad policies, analyzing it, and displaying results of

the collection and analysis. Fifth, like the concepts in *Cybersource*, these claim features facilitate obtaining and comparing intangible information about content, content displayed in a feed, and ad policies. Sixth, like the concepts in *Digitech*, these claim features facilitate organizing information about content, content displayed in a feed, and ad policies using mathematical correlations, e.g., by determining and using likelihoods. Seventh, like the concepts in *Ameranth*, these claim features facilitate generating second feed content from first feed content and delivering the second feed content to another computing location.

Further, these limitations describe abstract ideas that correspond to concepts identified by the courts as "certain methods of organizing human activity"—such as classifying and storing digital images in an organized manner (*TLI Comms.*), creating an index and using that index to search for and retrieve data (*Int. Ventures v. Erie Indemnity '434 patent*), and filtering content (*BASCOM*)—for the following reasons. First, like the concepts in these decisions, the claimed maintaining, receiving, retrieving, determining, generating, selecting, and providing relate to interpersonal and intrapersonal activities, such as managing relationships or transactions between people, social activities, and human behavior; satisfying or avoiding a legal obligation; advertising, marketing, and sales activities or behaviors; and managing human mental activity. Second, like the concepts in *TLI Comms.*, these claim features facilitate classifying and storing ad content. Third, like the concepts in *Int. Ventures v. Erie Indemnity '434 patent*, these claim features facilitate indexing ad content according to policies and using that index to search for and retrieve data. Fourth, like the concepts in *BASCOM*, these claim features facilitate filtering the content of a feed.

Thus, the concepts set forth in claims 1 and 12 relate to an "idea" of itself as well as "certain methods of organizing human activity" and are not meaningfully different than those "ideas" and "certain methods of organizing human activity" found by the courts to be abstract ideas.

Claims 3-6 and 14-17 further specify how to determine whether to modify one or more of the advertising policies. **Claims 7, 9, 10, 18, and 19** further specify how the one or more advertising policies are modified. **Claims 11 and 20** further specify how to select the content from the various content items.

These concepts also correspond to concepts identified as abstract ideas by the courts as "an idea 'of itself'" and "certain methods of organizing human activity" for the reasons stated above regarding claims 1 and 12.

Accordingly, claims 1, 3-7, 9-12, and 14-20 are directed to abstract ideas.

Step 2B

The claims do not include additional elements that are sufficient to amount to significantly more than the judicial exception because the additional elements, when considered both individually and as an ordered combination, do not amount to significantly more than the abstract idea.

The claims recite the following additional elements beyond those identified above as being directed to an abstract idea. **Claims 1 and 12** recite an ***online system***, ***receiving*** a request from an ***advertiser***, ***providing*** the newsfeed within the limited ***display space*** in the ***user interface*** to a ***client device***, and the intended-use to ***presenting*** the newsfeed to the user. **Claim 12** also recites a ***computer-readable storage medium*** having instructions encoded thereon that, when executed by a ***processor***, cause the processor to implement the identified abstract ideas.

Evaluated individually, the additional elements do not amount to significantly more than a judicial exception. The additional computer elements identified above—the ***computer-readable storage medium***, ***processor***, ***online system***, ***client device***, ***display space***, ***user interface***, and ***advertiser***—are recited at a high level of generality (see at least ¶¶ [0058]-[0061] of applicant's specification). Inclusion of these additional elements amounts to mere instructions to implement the identified abstract ideas on a computer. These additional computer elements provide conventional computer functions that do not add meaningful limits to practicing the abstract idea. Generic computer components recited as performing generic computer functions that are well-understood, routine and conventional activities amount to no more than implementing the abstract idea with a computerized system. The use of generic computer components to ***provide*** and ***receive*** information between machines (such as the advertiser, computing system performing the methods, and the client device) is the well-understood, routine, and conventional

computer functions of receiving or transmitting data over a network, e.g., the Internet, and does not impose any meaningful limit on the computer implementation of the identified abstract ideas. See M.P.E.P. 2106.05(d)(II). Similarly, Veach (U.S. Pub. No. 2004/0267612 A1) discloses at ¶¶ [0006]-[0009] how web-based advertising, e.g., displaying ads on webpages (i.e., user interfaces) while viewed on device having limited display areas, was commonly used on websites like the "home page of the New York Times Website, or the USA Today Website" and thus well-known at that time. And even if ***presentation*** of the feed were positively recited by the claims—which it is not—the use of conventional computer components to ***provide*** interfaces or to ***present*** them merely adds insignificant, extrasolution activities to the abstract idea that does not impose any meaningful limit on the computer implementation of the identified abstract ideas. Thus, taken alone, the additional elements do not amount to significantly more than a judicial exception.

Evaluating the claim limitations as an ordered combination adds nothing that is not already present when looking at the elements taken individually. There is no indication that the combination of elements improves the functioning of a computer or improves any other technology. Their collective functions amount to mere instructions to implement the identified abstract ideas on a computer in an online-advertising field of use.

Thus, claims 1, 3-7, 9-12, and 14-20, taken individually and as an ordered combination of elements, are not directed to eligible subject matter since they are directed to an abstract idea without significantly more.

Claim Rejections - 35 U.S.C. § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a)(1) the claimed invention was patented, described in a printed publication, or in public use, on sale or otherwise available to the public before the effective filing date of the claimed invention.

9. **Claims 1, 3-7, 9-12, and 14-20** are rejected under 35 U.S.C. § 102(a)(1) as being anticipated by Veach (U.S. Pub. No. 2004/0267612 A1).

Claims 1 and 12: Veach, as shown, discloses the following limitations:

maintaining, by an online system, one or more advertising policies identifying one or more positions in a newsfeed of content items in which advertisements may not be presented, the online system presenting content items and advertisements to a user of the online system in the newsfeed (see at least ¶¶ [0024]-[0026]: content server may combine the requested content with one or more of the advertisements provided by the system 120. This combined information including the content and advertisement(s) is then forwarded toward the end user that requested the content, for presentation to the viewer with content such as articles, discussion threads, music video, graphics, search results, web page listings—i.e., newsfeeds. The logic used to determine whether and where to present or not present advertisements are advertising policies that specify which positions content and advertising will/may and will not/may not be presented in; see also at least ¶ [0062]: various enhanced features to each of the ads based on their scores using an enhanced feature application policy 350; see also at least ¶ [0097]: precluding ad features; see also at least ¶¶ [0096]-[0097]: enhanced features include whether to display ads as pop-up ads. Before this feature is applied, the advertisements will not be displayed in that position in the news feed; see also at least ¶¶ [0081], [0088], [0093], [0108], and [0111]) *within a limited display space in a user interface* (see at least ¶ [0089]: output device(s) 734 may include a monitor or other type of display device—i.e., device with limited display spaces; see also at least ¶¶ [0024]-[0026], [0062], and [0095]-[0097]: limited amount of ads and content are displayed on the display)*;*

receiving, by the online system, information describing an advertisement request from an advertiser (see at least ¶ [0053]: ad features may be specified by an application and/or an advertiser; see also at least ¶ [0036]: the ads can be associated with bids)*;*

retrieving prior interactions by the user with content items presented by the online system from information maintained by the online system (see at least ¶ [0026]: information about the ads and how, when, and/or where the ads are to be rendered are transmitted back to the system 120—i.e., information about feed items previously presented to the user; see also at least ¶ [0074]: information used in selecting advertisements includes past performance of that ads that were previously presented to the user through the system);

determining a likelihood of the user performing one or more interactions with the advertisement included in the advertisement request based at least in part on the prior interactions by the user with the content items presented by the online system (see at least ¶¶ [0065] and [0074]: the score uses a model trained on performance information, including user ratings of the advertisement, focus group ratings of the advertisement, a measure of user interest for the advertisement weighted for a size or some other enhanced feature of the advertisement relative to that of other advertisements, a measure of user interest for the advertisement weighted for past positions of the advertisement relative to those past positions of other advertisements, expected user interest in the advertisement, and a measure of user interest for the advertisement weighted for a media type of the advertisement. The users' rankings and measures of interests are likelihoods of the user interacting with the ads; see also at least ¶ [0036]: the ads can be associated with bids);

determining that the likelihood of the user performing the one or more interactions with the advertisement including the advertisement request is greater than a threshold likelihood (see at least ¶ [0065]: enhanced feature eligibility scores for the ad is determined (or accepted if already determined). Then, it is determined whether or not to apply one or more enhanced features using, at least, one or more of the determined enhanced feature eligibility score(s). The policy is modified and the threshold value exceeded when an alternate ad or ad parameters are selected; see also at least ¶¶ [0072], [0074], [0076], and [0077]-[0078]; see also at least ¶¶ [0080] and [0108]-[0110]: policy thresholds are applied to ads to determine whether they will be displayed and in what manner, including moving ads up or down in

position to alter the policy. The policy is modified and the threshold value exceeded when an alternate ad or ad parameters are selected);

responsive to determining that the likelihood of the user performing the one or more interactions with the advertisement is greater than the threshold likelihood, generating a modification to the one or more of the advertising policies, the modification to the one or more advertising policies allowing insertion of the advertisement into a position in the newsfeed identified by the one or more advertising policies as one of the identified positions in the newsfeed of content items in which advertisements may not be presented (see at least ¶ [0065]: enhanced feature eligibility scores for the ad is determined (or accepted if already determined). Then, it is determined whether or not to apply one or more enhanced features using, at least, one or more of the determined enhanced feature eligibility score(s). The policy is modified when an alternate ad or ad parameters are selected. When the ad changes positions, the advertising policy is modified to allow the ad to be in a different position, namely, one it previously was not allowed to be presented in; see also at least ¶ [0072]: the enhanced feature eligibility score(s) can be determined using, among other things, (i) price information associated with the ad, (ii) performance information associated with the ad, and/or (iii) quality information about an advertiser associated with the ad; see also at least ¶ [0074]: performance information used to determine the enhanced feature eligibility score can be a function of user ratings of the advertisement, focus group ratings of the advertisement, a measure of user interest for the advertisement weighted for a size or some other enhanced feature of the advertisement relative to that of other advertisements, a measure of user interest for the advertisement weighted for past positions of the advertisement relative to those past positions of other advertisements, expected user interest in the advertisement, and a measure of user interest for the advertisement weighted for a media type of the advertisement; see also at least ¶¶ [0077]-[0078]; see also at least ¶¶ [0055], [0063], [0080]-[0083], [0095], [0097], and [0108]-[0110]; see also at least ¶¶ [0096]-[0097]: enhanced features include whether to display ads as pop-up ads. After this feature is applied, the advertisements will be displayed in the news feed where they advertising previously was not permitted to be displayed, thereby modifying the advertising policies);

selecting, for inclusion in the newsfeed in compliance with the generated modification, the advertisement for inclusion in the newsfeed in the position identified by the one or more advertising policies, a plurality of content items and one or more additional advertisement (see at least ¶ [0065]: enhanced feature eligibility scores for the ad is determined (or accepted if already determined). Then, it is determined whether or not to apply one or more enhanced features using, at least, one or more of the determined enhanced feature eligibility score(s); see also at least ¶ [0072]: the enhanced feature eligibility score(s) can be determined using, among other things, (i) price information associated with the ad, (ii) performance information associated with the ad, and/or (iii) quality information about an advertiser associated with the ad; see also at least ¶ [0074]: performance information used to determine the enhanced feature eligibility score can be a function of user ratings of the advertisement, focus group ratings of the advertisement, a measure of user interest for the advertisement weighted for a size or some other enhanced feature of the advertisement relative to that of other advertisements, a measure of user interest for the advertisement weighted for past positions of the advertisement relative to those past positions of other advertisements, expected user interest in the advertisement, and a measure of user interest for the advertisement weighted for a media type of the advertisement; see also at least ¶ [0097]: precluding ad features; see also at least ¶¶ [0077]-[0078], [0080]-[0083], [0095]-[0097], and [0108]-[0110);

providing, by the online system, the newsfeed including the selected content items and advertisements within the limited display space in the user interface to a client device for presentation to the user (see at least ¶¶ [0024]-[0026]: content server may combine the requested content with one or more of the advertisements provided by the system 120. The information provided through the user's browser as it is updated—i.e., as the feed is refreshed—include articles, discussion threads, music, video, graphics, search results, and web page listings; see also at least ¶ [0089]: output device(s) 734 may include a monitor or other type of display device—i.e., device with limited display spaces; see also at least ¶¶ [0029], [0062], and [0095]-[0097]: limited amount of ads and content are displayed on the display).

Claims 3 and 14: Veach discloses the limitations as shown in the rejection above. Further, Veach, as shown, discloses the following limitations:

wherein the threshold value is based at least in part on likelihoods of the user interacting with one or more content items identified as eligible for inclusion in the newsfeed of content items (see at least ¶ [0065]: threshold values are based on the enhanced feature eligibility scores; see also at least ¶ [0072]: the enhanced feature eligibility score(s) can be determined using, among other things, (i) price information associated with the ad, (ii) performance information associated with the ad, and/or (iii) quality information about an advertiser associated with the ad; see also at least ¶ [0074]: performance information used to determine the enhanced feature eligibility score can be a function of user ratings of the advertisement, focus group ratings of the advertisement, a measure of user interest for the advertisement weighted for a size or some other enhanced feature of the advertisement relative to that of other advertisements, a measure of user interest for the advertisement weighted for past positions of the advertisement relative to those past positions of other advertisements, expected user interest in the advertisement, and a measure of user interest for the advertisement weighted for a media type of the advertisement).

Claims 4 and 15: Veach discloses the limitations as shown in the rejection above. Further, Veach, as shown, discloses the following limitations:

wherein generating the modification to the one or more of the advertising policies comprises:

determining likelihoods of the user interacting with one or more content items identified as eligible for inclusion in the newsfeed based on prior interactions by the user with content items (see at least ¶¶ [0065] and [0074]: the score uses a model trained on performance information, including user ratings of the advertisement, focus group ratings of the advertisement, a measure of user interest for the advertisement weighted for a size or some other enhanced feature of the advertisement relative to that of other advertisements, a measure of user interest for the

advertisement weighted for past positions of the advertisement relative to those past positions of other advertisements, expected user interest in the advertisement, and a measure of user interest for the advertisement weighted for a media type of the advertisement. The users' rankings and measures of interests are likelihoods of the user interacting with the ads; see also at least ¶ [0036]: the ads can be associated with bids)*;*

ranking the likelihood of the user interacting with the advertisement and the likelihoods of the user interacting with the one or more content items identified as eligible for inclusion in the newsfeed (see at least ¶¶ [0065] and [0070]: the ads chosen for available ad spot positions are modified as the scores are determined; see also at least ¶ [0078]: more than one enhanced feature eligibility score are determined for each ad, such as for (i) each enhanced feature permitted on a document, (ii) each enhanced feature desired by the advertiser, (iii) each enhanced feature that is both permitted on a document and desired by the advertiser, (iv) a type of enhanced features, and/or (v) a grouping of enhanced features. Multiple scores results in multiple orders; see also at least ¶¶ [0037] and [0076])*; and*

modifying one or more of the advertising policies if the likelihood of the user performing one or more interactions with the advertisement has at least a threshold position in the ranking (see at least ¶¶ [0080] and [0108]-[0110]: policy thresholds are applied to ads to determine whether they will be displayed and in what manner, including moving ads up or down in position to alter the policy; see at least ¶ [0065]: enhanced feature eligibility scores for the ad is determined (or accepted if already determined). Then, it is determined whether or not to apply one or more enhanced features using, at least, one or more of the determined enhanced feature eligibility score(s). The policy is modified and the threshold value exceeded when an alternate ad or ad parameters are selected; see also at least ¶ [0076]).

Claims 5 and 16: Veach discloses the limitations as shown in the rejection above. Further, Veach, as shown, discloses the following limitations:

wherein generating the modification to the one or more of the advertising policies comprises:

determining to modify one or more of the advertising policies (see at least ¶ [0065]: enhanced feature eligibility scores for the ad is determined (or accepted if already determined). Then, it is determined whether or not to apply one or more enhanced features using, at least, one or more of the determined enhanced feature eligibility score(s). The policy is modified when an alternate ad or ad parameters are selected; see also at least ¶ [0072]: the enhanced feature eligibility score(s) can be determined using, among other things, (i) price information associated with the ad, (ii) performance information associated with the ad, and/or (iii) quality information about an advertiser associated with the ad; see also at least ¶ [0074]: performance information used to determine the enhanced feature eligibility score can be a function of user ratings of the advertisement, focus group ratings of the advertisement, a measure of user interest for the advertisement weighted for a size or some other enhanced feature of the advertisement relative to that of other advertisements, a measure of user interest for the advertisement weighted for past positions of the advertisement relative to those past positions of other advertisements, expected user interest in the advertisement, and a measure of user interest for the advertisement weighted for a media type of the advertisement; see also at least ¶¶ [0077]-[0078]; see also at least ¶¶ [0080]-[0083] and [0095])*; and*

ignoring one or more of the advertising policies in response to determining to modify one or more of the advertising policies (see at least ¶¶ [0065] and [0072]: the dictates of a policy are ignored when the policy is changed to have other requirements; see also at least ¶¶ [0080] and [0108]-[0110]: policy thresholds are applied to ads to determine whether they will be displayed and in what manner, even when under a particular threshold; see also at least ¶ [0111]: a fixed number of enhanced features are applied, regardless of scores meeting a certain threshold; see also at least ¶ [0076]).

Claims 6 and 17: Veach discloses the limitations as shown in the rejection above. Further, Veach, as shown, discloses the following limitations:

wherein generating the modification to the one or more of the advertising policies comprises:

determining to modify one or more of the advertising policies (see at least ¶ [0065]: enhanced feature eligibility scores for the ad is determined (or accepted if already determined). Then, it is determined whether or not to apply one or more enhanced features using, at least, one or more of the determined enhanced feature eligibility score(s). The policy is modified when an alternate ad or ad parameters are selected; see also at least ¶ [0072]: the enhanced feature eligibility score(s) can be determined using, among other things, (i) price information associated with the ad, (ii) performance information associated with the ad, and/or (iii) quality information about an advertiser associated with the ad; see also at least ¶ [0074]: performance information used to determine the enhanced feature eligibility score can be a function of user ratings of the advertisement, focus group ratings of the advertisement, a measure of user interest for the advertisement weighted for a size or some other enhanced feature of the advertisement relative to that of other advertisements, a measure of user interest for the advertisement weighted for past positions of the advertisement relative to those past positions of other advertisements, expected user interest in the advertisement, and a measure of user interest for the advertisement weighted for a media type of the advertisement; see also at least ¶¶ [0077]-[0078]; see also at least ¶¶ [0080]-[0083] and [0095])*; and*

modifying one or more advertising policies to increase a likelihood of the advertisement being selected for inclusion in the feed of content (see at least ¶ [0065]: enhanced feature eligibility scores for the ad is determined (or accepted if already determined). Then, it is determined whether or not to apply one or more enhanced features using, at least, one or more of the determined enhanced feature eligibility score(s). The policies is modified when an alternate ad or ad parameters are selected; see also at least ¶ [0097]: precluding ad features; see also at least ¶¶ [0072], [0074], [0077]-[0078]; see also at least ¶¶ [0080]-[0083] and [0095]).

Claims 7 and 18: Veach discloses the limitations as shown in the rejection above. Further, Veach, as shown, discloses the following limitations:

wherein modifying one or more advertising policies comprises:

modifying an advertising policy based at least in part on the likelihood of the user performing one or more interactions with the advertisement included in the advertisement request (see at least ¶ [0072]: the enhanced feature eligibility score(s) can be determined using, among other things, (i) price information associated with the ad, (ii) performance information associated with the ad, and/or (iii) quality information about an advertiser associated with the ad; see also at least ¶ [0097]: precluding ad features).

Claims 9 and 19: Veach discloses the limitations as shown in the rejection above. Further, Veach, as shown, discloses the following limitations:

wherein the one or more advertising policies include a minimum distance between positions in which advertisements are presented in the newsfeed (see at least ¶¶ [0080] and [0108]-[0110]: policy thresholds are applied to ads to determine whether they will be displayed and in what manner, including moving ads up or down in position. If existing ads do not meet the requirements, others are selected. The minimum distance is the next position; see also at least ¶ [0097]: precluding ad features; see also at least ¶ [0076]).

Claim 10: Veach discloses the limitations as shown in the rejection above. Further, Veach, as shown, discloses the following limitations:

wherein the one or more advertising policies include a minimum number of content items presented in the newsfeed between advertisements are presented in the newsfeed (see at least ¶¶ [0080] and [0108]-[0110]: policy thresholds are applied to ads to determine whether they will be displayed and in what manner, including moving ads up or down in position. If existing ads do not meet the requirements,

others are selected. The number of content items is the next content item; see also at least ¶ [0097]: precluding ad features; see also at least ¶ [0076]).

Claims 11 and 20: Veach discloses the limitations as shown in the rejection above. Further, Veach, as shown, discloses the following limitations:

wherein selecting, for inclusion in the newsfeed in compliance with the generated modification, the advertisement for inclusion in the newsfeed in the position indicated by the one or more advertising policies, a plurality of content items and one or more additional advertisements comprises:

ranking the advertisement for inclusion in the position, the plurality of content items, and the one or more additional advertisements based at least in part on a bid amount associated with the advertisement for inclusion in the position and bid amounts associated with the one or more additional advertisements (see at least ¶¶ [0065] and [0074]: the score uses a model trained on performance information, including user ratings of the advertisement, focus group ratings of the advertisement, a measure of user interest for the advertisement weighted for a size or some other enhanced feature of the advertisement relative to that of other advertisements, a measure of user interest for the advertisement weighted for past positions of the advertisement relative to those past positions of other advertisements, expected user interest in the advertisement, and a measure of user interest for the advertisement weighted for a media type of the advertisement. The users' rankings and measures of interests are likelihoods of the user interacting with the ads; see also at least ¶ [0036]: the ads can be associated with bids for being placed in the requested positions)*; and*

selecting content items for presentation to the user via the newsfeed of content items based at least in part on the ranking and the generated modification (see at least ¶¶ [0080]-[0083]: determining whether to apply enhanced features and which enhanced features to apply; see also at least ¶¶ [0065], [0070], [0076], and [0095]).

Response to Arguments

10. Applicant's arguments filed October 4, 2018 have been fully considered but they are not persuasive.

Arguments Regarding Rejections Under 35 U.S.C. § 101

11. Applicant argues that "Regarding Step 2A of the *Alice* test, the Office Action fails to identify and abstract idea to which the claims are directed." Reply, p. 11. Applicant further argues that "instead of identifying an abstract idea to which the claim as a whole is directed and comparing this abstract idea to other abstract ideas identified by the courts, the Office Action likens a paragraph of the actual claim limitations to the abstract ideas from various court decisions." *Id.* Applicant also argues that "the Office Action contains mere boilerplate that generically lists several different categories of abstract ideas, court cases associated with those categories of abstract ideas, but without discussion of the claims themselves." *Id.*, p. 12. Examiner disagrees, because applicant mischaracterizes the analysis in the Office action.

Under Step 2A of the *Alice* test, "Examiners should determine whether a claim recites an abstract idea by (1) identifying the claimed concept (the specific claim limitation(s) in the claim under examination that the examiner believes may be an abstract idea), and (2) comparing the claimed concept to the concepts previously identified as abstract ideas by the courts to determine if it is similar." M.P.E.P. § 2106.04(a). The rejections under § 101 follow these steps.

First, the rejections under § 101 identify the specific claim limitations in the claim under examination that the examiner believes may be an abstract idea, thereby identifying the abstract idea. More particularly, the second paragraph under the **Step 2A** subsection of the rejections under § 101 provide this identification. Applicant acknowledges this identification (see, e.g., Reply, p. 11, fn. 1), but proceeds with arguments as if no abstract ideas have been identified. However, applicant's acknowledgement of this identification of the abstract ideas in the claims belies applicant's argument that no such identification took place. Thus, applicant mischaracterizes the Office action's identification of the abstract ideas in the claims.

Second, the rejections under § 101 comparing the claimed concept to the concepts previously identified as abstract ideas by the courts to determine if it is similar. More specifically, the third, fourth, and sixth paragraphs under the **Step 2A** subsection of the rejections under § 101 provide this comparison. The third and fourth paragraphs refer to the steps of the identified abstract ideas using the shorthand "the claimed maintaining, receiving, retrieving, determining, generating, selecting, and providing." This reference to the claimed steps of the identified abstract ideas refers to ***all*** the steps of the identified abstract ideas—they do not merely serve as a "paraphrase of the actual claim limitations" as argued by applicant. Again, this apparent confusion appears to stem from applicant mischaracterization of the Office action's identification of the abstract ideas in the claims. Thus, the analysis considers ***all*** of the steps of the identified abstract ideas when comparing these claim features to concepts previously identified as abstract ideas by the courts to determine if they are similar.

12. Applicant argues "the claims include detailed limitations that amount to 'significantly more,' thereby, satisfying the second step of the *Alice* test." Reply, p. 13. Specifically, applicant argues that "a problem arises when conventional systems present advertisements with organic content as conventional advertisements since many of these conventional systems impose restrictions on the number of advertisements" and that this problem is solved by "generating modifications to a policy in response to the likelihood of the user performing one or more interactions being greater than a threshold." *Id.* Applicant adds "the method of claim 1 is only applicable to an online system that maintains a newsfeed of content items and maintains advertising policies related the content items within the newsfeed." *Id.*, p. 14. Examiner disagrees for the following reasons. The alleged solutions—i.e., modifying rules for how to choose advertising to balance the amount of advertising with "organic content"—flush out features of the identified abstract ideas. But the claim features directed to modifying rules for how to choose advertising do not specify how these features are specifically implemented by a computer or any other technology. Modifying rules for how to choose advertising is a solution in the marketing and advertising fields. In other words, the alleged improvement is to the abstract idea, not anything relating to the technical aspects of the claimed invention. See *SAP Am., Inc. v. InvestPic*, LLC, No. 2017-2081, slip op. at 14 (Fed. Cir.

Aug. 2, 2018) ("What is needed is an inventive concept in the non-abstract application realm. ... [L]imitation of the claims to a particular field of information ... does not move the claims out of the realm of abstract ideas."). This solution of how to modify advertising policies is not limited to a particular technology or technological field; rather, it appears to be applicable in any marketing or advertising context. For example, one could employ the same steps identified as being directed abstract ideas (e.g., the claimed maintaining, receiving, retrieving, determining, generating, selecting, and providing) to supervise and manage advertising policies in newsprint advertising, magazine advertising, word of mouth advertising, radio advertising, etc.

Arguments Regarding Rejections Under 35 U.S.C. § 102

13. Applicant argues that Veach fails to disclose "advertising policies identifying positions in a newsfeed of content items in which advertisements may not be presented" and that "Veach fails to teach or suggest 'allowing insertion of the advertisement into a position in the newsfeed identified by the one or more advertising policies as one of the identified positions in the newsfeed of content items in which advertisements may not be presented." Reply, pp. 18-19. Examiner disagrees for the following four reasons.

First, the logic used to determine whether to present or not present advertisements are advertising policies; more simply, an ad will or will not (or may or may not) be shown according to the logic used to determine whether to present or not present advertisements, and thus, which portions of the feed may have advertisements or may not have advertisements.

Second, applicant appears to be arguing limitations that are not present in the claims. The claims do not require that the claimed *content items* exclude advertising content. Rather, the claims require that an advertisement appears in a position that advertising was previously excluded from.

Third, any claimed distinction between content as advertising or non-advertising content would appear to fall under the category of non-functional descriptive material. "To be given patentable weight, the printed matter and associated product must be in a functional relationship." M.P.E.P. § 2111.05(I)(A).

But, "[w]here a product merely serves as a support for printed matter, no functional relationship exists." *Id.*, § 2111.05(I)(B). The characteristics of the content itself do not appear to have any functional relationship with claimed methods for processing that content.

Fourth, Veach discloses that positions of the page—i.e., those containing content—can be excluded from having selected ads displayed thereon. For example, Veach discloses at ¶¶ [0096]-[0097] that the enhanced features include whether to display ads as pop-up ads. Before this feature is applied, the advertisements will not be displayed in that position in the news feed. But after this feature is applied, the advertisements will be displayed in the news feed where they advertising previously was not permitted to be displayed, thereby modifying the advertising policies. Further, Veach at ¶ [0055] teaches that an advertisement can be specified as appearing "no lower than a certain position" and at ¶ [0063] teaches that placement features include "(xv) location." These are also restrictions that can apply to some advertisements (e.g., an ad may not be placed at certain positions in the feed), but after modification, other ads can take those previously restricted positions in the feed.

14. Applicant argues that "Veach does not describe performance information specifically related to the user who will view the advertisement in the newsfeed. The performance information is described as being dependent on general user information or information not related to users." Reply, p. 20. Examiner disagrees for the following reasons. In Veach, information used in selecting advertisements includes past performance of that ads that were previously presented to ***the user*** through the system, because "The performance information may be a measure of ***user*** interest in the associated advertisement"—i.e., a particular user. See, e.g., *id.* at ¶ [0074], emphasis added. Thus, the ads selected in Veach are selected using information specific to the user receiving the ads.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following references have been cited to further show the state of the art with respect to ad policy enforcement.

- U.S. Pub. No. 2014/0297400 A1 to Sandholm (media advertising campaign sales and allocation); and
- U.S. Pub. No. 2009/0070190 A1 to Gorty et al. (updating contents of asynchronously refreshable webpages).

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher B. Tokarczyk whose telephone number is (571) 272-9594. The examiner can normally be reached on M-H 5:30 AM-4:00 PM, Eastern Time.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Choi can be reached at (469) 295-9171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available

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/CBT/
Examiner, Art Unit 3622

/SCOTT D GARTLAND/
Primary Examiner, Art Unit 3622

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EXAMINER	
TOKARCZYK, CHRISTOPHER B	

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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):

eofficemonitor@bakerlaw.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte YI TANG

Appeal 2019-006434
Application 14/562,547
Technology Center 3600

BEFORE DONALD E. ADAMS, ULRIKE W. JENKS, and TAWEN CHANG, *Administrative Patent Judges*.

ADAMS, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant[1] appeals from Examiner's decision to reject claims 1, 3–7, 9–12, and 14–20 (Final Act.[2] 2). We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

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[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 "Facebook, Inc." (Appellant's April 23, 2019 Appeal Brief (Appeal Br.) 2). Note, Appellant's Appeal Brief is not paginated, therefore, all reference to pages in this document refer to a page as if the document were numbered consecutively beginning with the first page.

[2] Examiner's November 26, 2018 Final Office Action.

STATEMENT OF THE CASE

Appellant's disclosure "relates generally to presentation of content by an online system, and more specifically to requesting content items subject to one or more policies regulating locations of presented content items relative to each other" (Spec. ¶ 1). Appellant's claim 1 is reproduced below:

1. A method comprising:

maintaining, by an online system, one or more advertising policies identifying one or more positions in a newsfeed of content items in which advertisements may not be presented, the online system presenting content items and advertisements to a user of the online system in the newsfeed within a limited display space in a user interface;

receiving, by the online system, information describing an advertisement request from an advertiser;

retrieving prior interactions by the user with content items presented by the online system from information maintained by the online system;

determining a likelihood of the user performing one or more interactions with the advertisement included in the advertisement request based at least in part on the prior interactions by the user with the content items presented by the online system;

determining that the likelihood of the user performing the one or more interactions with the advertisement including the advertisement request is greater than a threshold likelihood;

responsive to determining that the likelihood of the user performing the one or more interactions with the advertisement is greater than the threshold likelihood, generating a modification to the one or more of the advertising policies, the modification to the one or more advertising policies allowing insertion of the advertisement into a position in the newsfeed identified

> by the one or more advertising policies as one of the identified positions in the newsfeed of content items in which advertisements may not be presented;
>
> selecting, for inclusion in the newsfeed in compliance with the generated modification, the advertisement for inclusion in the newsfeed in the position identified by the one or more advertising policies, a plurality of content items, and one or more additional advertisements; and
>
> providing, by the online system, the newsfeed including the selected content items and advertisements within the limited display space in the user interface to a client device for presentation to the user.

(Appeal Br. 17–18.) Claim 12, Appellant's remaining independent claim, is drawn to a computer program product comprising a non-transitory computer readable storage medium having instructions encoded thereon that, when executed by a processor, cause the processor to perform the method of Appellant's claim 1 (*see id.* at 20–21).

Grounds of rejection before this Panel for review:

Claims 1, 3–7, 9–12, and 14–20 stand rejected under 35 U.S.C. § 102(a)(1) as anticipated by Veach.[3]

Claims 1, 3–7, 9–12, and 14–20 stand rejected under 35 U.S.C. § 101.

Anticipation:

ISSUE

Does the preponderance of evidence on this record support Examiner's finding that Veach teaches Appellant's claimed invention?

[3] Veach, US 2004/0267612 A1, published Dec. 30, 2004.

ANALYSIS

Examiner finds that Veach anticipates Appellant's claimed invention (*see* Final Act. 7–16). In this regard, Examiner finds, *inter alia*, that Veach teaches the use of "advertising policies that specify which positions content and advertising will/may and will not/may not be presented," wherein such policies "include whether to display ads as pop-up ads" (Ans. 8 (citing Veach ¶¶ 62, 96, and 97); *see also* Ans. 9; Final Act. 7, 9, and 20). We are not persuaded.

As Appellant explains, however, a pop-up window is not in the newsfeed and thus, displaying an ad in a pop-up window fails to meet the requirement in Appellant's claimed invention that the ad is displayed in a newsfeed (*see* Reply Br. 5). In this regard, Appellant explains that "even if the original ad were in a newsfeed, changing it to be in a new window removes it from the newsfeed, rather than altering its position within the newsfeed" (*id.*; *cf.* Ans. 8–9 (Examiner finds "[w]hen the ad changes positions (e.g., being allowed to be shown as a pop-up), the advertising policy is modified to allow the ad to be in a different position, namely, one it previously was not allowed to be presented in")).

CONCLUSION

The preponderance of evidence on this record fails to support Examiner's finding that Veach teaches Appellant's claimed invention. The rejection of claims 1, 3–7, 9–12, and 14–20 under 35 U.S.C. § 102(a)(1) as being anticipated by Veach is reversed.

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: "Laws of nature, natural phenomena, and abstract ideas" are not patentable. *E.g.*, *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014).

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 (1853))); 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").[4] "All USPTO personnel are, as a matter of internal agency management, expected to follow the guidance." *Id.* at 51; *see also* October 2019 Update at 1.

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* Manual of Patent Examining Procedure ("MPEP") § 2106.05(a)–(c), (e)–(h) (9th ed. Rev. 08.2017, Jan. 2018)) ("Step 2A, Prong Two").[5]

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

[5] This evaluation is performed by (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception, and

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

(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 claims 1, 3–7, 9–11, and 14–20 are directed to a process and claims 12 and 14–20 are directed to a product, i.e., computer readable medium and, thus, squarely fall within the statutory categories set forth in § 101 (*see generally* Final Act. 2). 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 next to determine whether any judicial exception to patent eligibility is recited in the

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(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* 2019 Revised Guidance - Section III(A)(2), 84 Fed. Reg. 54–55.

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
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> recites maintaining one or more advertising policies identifying positions is a newsfeed of content items in which advertisements may not be presented, receiving information, retrieving prior interactions, determining a likelihood, determining that the likelihood is greater than a threshold, generating a modification to the one or more advertising policies responsive to the previous determination, the modification allowing insertion of the advertisement into a position identified as one in which advertisements may not be presented, selecting the advertisement for inclusion in the newsfeed in the position identified by the one or more advertising policies, a plurality of content items and additional advertisements, and providing the newsfeed.

(Final Act. 3; *see id.* (Examiner finds that Appellant's claim 12 "recites similar limitations").) According to Examiner, the foregoing limitations correspond to the collection, manipulation (i.e., comparison and organization through mathematical correlations), analysis, and display of data and, thus, recites "mental processes that can be performed in the human mind or by a human using a pen and paper" (*see* Final Act. 3).

Appellant contends that its claim 1 does "not recite a mental process," because, like claim 2 of the Guidance's Example 37,[6] the retrieving and determining steps of Appellant's claim 1 "require[s] actions that cannot be

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[6] *Example 37 – Relocation of Icons on a Graphical User Interface*, Subject Matter Eligibility Examples: Abstract Ideas, 1–5, available at https://www.uspto.gov/sites/default/files/documents/101_examples_37to42_20190107.pdf.

practically applied in the human mind" (Appeal Br. 6). We agree. We also agree with Appellant's contention that because "mathematical concepts are not recited in [its] claims . . . the claims are not directed to a mathematical relationship, formula, or calculation" (*id.*).

Examiner and Appellant both agree, however, that Appellant's claim 1 recites "a method that involves the placement of advertisements, which at that level of generality may arguably fall within organizing human activity" (Appeal Br. 6; *cf.* Final Act. 4 (Examiner finds that Appellant's claim 1 recites "certain methods of organizing human activity") Ans. 4; Guidance, 84 Fed. Reg. at 52).

(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 because Appellant's claim 1 "do[es] not require any display of the modified newsfeed" it does not integrate the recited judicial exception into a practical application, i.e., the display of a modified newsfeed, but rather describes the preparation of "a newsfeed and sending it to a display with the intended—but not required—use of [a] display" (Ans. 5; *see also id.* at 5–6). According to Examiner, although "[m]odifying rules for how to choose advertising would be a solution[, i.e., practical application,] in the marketing and advertising fields," the "features [of Appellant's claim 1] directed to modifying rules for how to choose advertising do not specify how these features are specifically implemented by a computer or any other technology" and "to the extent that

[A]ppellant alleges the claims [] 'improve the quality of and thereby user satisfaction with the newsfeed,' [] this is an intended result [and] not necessarily an improvement required by the claims" (*id.* at 6–7). Thus, Examiner finds that Appellant's "alleged improvement is to the abstract idea, not anything relating to the technical aspects of the claimed invention" (*id.*). We are not persuaded.

As Appellant explains, the method set forth in its claim 1 "is a particular improvement, [i.e., practical application of the abstract idea,] rather than a general claim to advertising in the abstract," because it requires, *inter alia*,

> "responsive to determining that the likelihood of the user performing the one or more interactions with the advertisement is greater than the threshold likelihood, generating a modification to the one or more of the advertising policies," where "the modification to the one or more advertising policies allowing insertion of the advertisement into a position in the newsfeed identified by the one or more advertising policies as one of the identified positions in the newsfeed of content items in which advertisements may not be presented" limits the modification of advertisement policies to when "the likelihood of the user performing the one or more interactions with the advertisement is greater than the threshold likelihood" which avoids generating modifications to advertisement policies for advertisements with which the user is not likely to interact.

(Appeal Br. 9–10 (citing claim 1 of the Guidance's Example 40,[7]).) We agree. Appellant's claimed method provides a specific improvement to online systems of advertisement and, thus, Appellant's claim 1 as a whole

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[7] *Example 40 – Adaptive Monitoring of Network Traffic Data*, Subject Matter Eligibility Examples: Abstract Ideas, 10–11, available at https://www.uspto.gov/sites/default/files/documents/101_examples_37to42_20190107.pdf.

integrates the judicial exception into a practical application (*see* Appeal Br. 9).

As discussed above, Appellant's claim 12, the only remaining independent claim, is drawn to a computer program product comprising a non-transitory computer readable storage medium having instructions encoded thereon that, when executed by a processor, cause the processor to perform the method of Appellant's claim 1 and is, therefore, directed to patent eligible subject matter for the same reasons as Appellant's claim 1.

This concludes the eligibility analysis on this record. *See* Revised Guidance, 84 Fed. Reg. at 51.

CONCLUSION

The preponderance of evidence of record fails to support Examiner's finding that Appellant's claimed invention is directed to patent ineligible subject matter. The rejection of claims 1, 3–7, 9–12, and 14–20 under 35 U.S.C. § 101 is reversed.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 3–7, 9–12, 14–20	102(a)(1)	Veach		1, 3–7, 9–12, 14–20
1, 3–7, 9–12, 14–20	101	Eligibility		1, 3–7, 9–12, 14–20
Overall Outcome				1, 3–7, 9–12, 14–20

REVERSED