

## REMARKS

### I. Introduction

In response to the final Office Action dated May 17, 2019, claims 1 and 11 have been amended and claims 9-10 and 19-20 have been canceled. Applicant notes that in the prior submission, the claim amendments were included but were inadvertently not red-lined to indicate the changes. Accordingly, this amendment includes the marked-up versions of the claims. Claims 1-8, and 11-18 remain in the application. Re-examination and re-consideration of the application, as amended, is requested.

### II. Renouncement of Disclaimer/Surrender of Claim Scope in Previous Applications, Amendments, or Remarks

To the extent that any amendments or remarks previously made in this or any related application may be interpreted as a disclaimer or surrender of claim scope under the recapture doctrine, Applicants hereby renounce and rescind such disclaimer or surrender. Any disclaimers of claim scope or arguments affected by previously included claim language, and any prior art that may have been referred to regarding this or prior claim language, is brought to the attention of the Examiner such that these arguments and changes can be re-visited to ensure patentability of the present claims. Applicants also reserve the right to file broader claims in one or more continuation, continuation-in-part, or divisional applications in accordance within the full breadth of disclosure, and the full range of doctrine of equivalents of the disclosure, as recited in the original specification.

### III. Claim Rejections - 35 USC § 101

The Office Action has rejected claims 1-20 under 35 USC 101 as being directed to unpatentable subject matter.

Applicant respectfully disagrees with and traverses the rejections. The USPTO has published the following:

- The 2019 Revised Patent Subject Matter Eligibility Guidance (“PEG”) (issued January 7, 2019);
- Memorandum – Recent Subject Matter Eligibility Decision: *Vanda Pharmaceuticals v. West-Ward Pharmaceuticals* (issued June 7, 2018);
- Memorandum - Revising 101 Eligibility Procedure in view of *Berkheimer v. HP, Inc.* (issued April 19, 2018)
- Training: Well-Understood, Routine, Conventional Activity (posted May 7, 2018)
- Federal Register notice requesting comments on the *Berkheimer* memorandum and other eligibility guidance (link is external) (published April 20, 2018)
- Memorandum - Recent Subject Matter Eligibility Decisions: *Finjan* and *Core Wireless* (issued April 2, 2018)
- 2019 PEG Examples 37 through 42 (issued January 7, 2019);
- Frequently Asked Questions (posted January 8, 2019);
- Chart of subject matter eligibility court decisions (updated July 23, 2018)

The Guidance and publications provide a series of steps to determine whether patent eligible subject matter has been recited.

The first step in the analysis requires a determination whether the claim is directed to a process, machine, manufacture, or composition of matter. Claim 1 clearly recites a method/process, and claim 11 clearly recites an apparatus/machine. Thus, Step 1 has been satisfied and the claims are directed towards a statutory category.

Step 2 is a two-part analysis. In the first part (Step 2A), a determination is made whether the claim is directed to a law of nature, a natural phenomenon, or an abstract idea (judicial exception). The PEG issued on January 7, 2019 clarifies that step 2A provides for (1) providing groupings of subject matter that is considered an abstract idea; and (2) clarifying that a claim is NOT “directed to” a judicial exception if the judicial exception is integrated into a practical application of that exception.

With respect to Step 2A(1), the PEG and FAQs provide that groupings are: mathematical concepts, certain methods of organizing human activity, and mental processes, and that Examiners are to use these enumerated grouping of abstract ideas to identify abstract ideas and Examiners are no longer to use the “Eligibility Quick Reference Sheet Identifying Abstract Ideas” (see FAQs A-7). The present rejection asserts that the current claims are directed to the abstract idea relating to certain method of organizing human activity – specifically, a “commercial or legal interaction (including agreements in the form of contracts; legal

obligations; advertising, marketing or sales activities or behaviors; business relations).” The Action states that the process is aimed at providing advertisements to the successful bidder and that as such is a commercial activity which falls under the category of organizing human activity. Applicant notes that the recitation of “advertising” in the category published by the Patent Office is based on *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed Cir. 2014) (holding that claim “describe[ing] only the abstract idea of showing an advertisement before delivering free content” is patent ineligible) (see Footnote 13 of 2019 Revised Patent Subject Matter Eligibility Guidance, published January 7, 2019, 84 Fed. Reg. No. 4). Applicant notes that the present claims provide a detailed set of examples for not only conducting a bidding process to determine which and how advertisements are delivered between two entities, but the ability to actually to insert a pixel that is then used to collect statistics of users receiving the ads, and analyzing and determining the user bases of the publishers based on the statistics. Such claim language is not merely directed towards a business relationship or displaying an advertisement before delivering free content. Instead, specific functional language is recited in the claims that clearly and easily distinguish displaying an ad prior to delivering free content.

The Action further asserts that the claimed auction is merely directed to organizing a business or legal relationship. Applicant notes that the business or legal relationship reference is based on *In re Ferguson*, 558 F.3d 1359, 1364 (Fed Cir. 2009) (holding methods “directed to organizing business or legal relationships in the structuring of a sales force (or marketing company)” to be ineligible) (see Footnote 13 of 2019 Revised Patent Subject Matter Eligibility Guidance, published January 7, 2019, 84 Fed. Reg. No. 4). Applicant notes that the present claims are not even remotely similar to structuring a sales force or marketing company and as such is not organizing a business or legal relationship. Instead, the claim provides details for a reverse online based auction relating to impressions to be displayed online to a particular user via an Internet network, followed by insertion of a pixel into an advertisement, delivering the ad, collecting statistics based thereon, and analyzing the stats to determine the user bases of publishers. Such detailed claim language does not relate to a business structure or legal relationship such as the organization of a sales force or marketing company. In this regard, to

assert such an equivalency is an attempted interpretation of the general categories well beyond that provided for the judiciary system and the guidelines set forth by the USPTO.

In view of the above, Applicant submits that the claims are patentable under step 2A prong 1 of the PEA.

If and when prong 1 of step 2A has been satisfied (which Applicant traverses as described above), the PEG provides for evaluating the claims under prong 2 to determine if the judicial exception is integrated into a practical application of the exception. Prong 2 evaluates integration into a practical application by (a) identifying whether there are any additional elements cited in the claim beyond the judicial exception(s); and (b) evaluating those additional elements individually and in combination to determine whether they integrate the exception into a practical application. The PEG provides that the following exemplary considerations are indicative that an additional element may have integrated the exception into a practical application:

- An additional element reflects an improvement in the functioning of a computer, or an improvement to other technology or technical field;
- an additional element implements a judicial exception with, or uses a judicial exception in conjunction with, a particular machine or manufacture that is integral to the claim; or
- an additional element effects a transformation or reduction of a particular article to a different state or thing.

Applicant submits that the present claims recite additional elements providing that any judicial exception is integrated into a practical application. In particular, the practical application is that of conducting an auction/exchange for online advertisements based on an advertisement purchaser's specifications (see [0007] of the originally filed specification). The recited steps improve the functioning of a computer and further provide an improvement in the field of electronic/online advertisements so that online advertisements can be placed in impressions via a reverse bidding process that was not possible in the prior art. In addition, the claims and steps are an integral part of the computer and processor (the processor based elements are added as indicated above). Further, the bid is transformed into a different state – an actual impression slot that is then filled with an advertisement. Thus, the present claims are consistent with all of the

above-identified exemplary considerations under prong 2 of step 2A. Accordingly, under prong 2 of step 2A, the claims recite patentable subject matter.

In response to the above, the rejection asserts that after stripping the auction based elements (that are considered abstract), the remaining elements are directed to inserting a pixel into the advertisement, receiving the pixel, analyzing statistics, and determining a customer base which the Office considers insignificant extra-solution activity. Applicant respectfully disagrees with and traverses this analysis. In particular, as described above, the auction based elements are not abstract in any way, shape, or form. Accordingly, the determination of the practical application should not strip those elements prior to determining whether a practical application has been recited. Instead, the proper analysis should consider the auction based elements. In addition, Applicant has amended the claims to provide for utilizing the statistics and the one or more user bases in a subsequent bidding process. Such a use of the statistics and determined user bases clearly integrates the steps into a practical application.

Should the Patent Office conclude that step 2A has not been satisfied, the evaluation under the PEG proceeds to step 2B to determine whether an additional element:

- adds a specific limitation or combination of limitations that are not well-understood, routine, conventional activity in the field, which is indicative that an inventive concept may be present; or
- simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of granularity, to the judicial exception, which is indicative that an inventive concept may not be present.

The rejection asserts that independent claims merely recite insignificant extra-solution activity. Applicant respectfully disagrees. In particular, in view of the arguments set forth below distinguishing the prior art from the present claims, it is theoretically impossible for the claims to recite elements that are well-understood, routine, and conventional. In other words, it is impossible for claims that overcome prior art based rejections to be considered well-understood, routine and conventional. In particular, under the PEG, the present claims provide a series of steps/elements that conduct a bidding for an advertising impression in an unconventional way - i.e., by conducting a reverse auction by accepting bids from publishers that have impressions to sell to an advertising purchaser, then the advertising purchaser providing the ads to the successful publisher, followed by the insertion of the publisher's pixel that is read by the advertising

purchaser to collect statistics of users that are analyzed to determine user bases that are then used in a subsequent bidding process. Such an unconventional sequence of steps renders the claim eligible under step 2B.

Further to the above, Applicant submits that the reverse bidding process set forth in the claims is not the traditional manner in which advertising bidding has been conducted in the prior art, and is therefore beyond simply generic functioning, and is solving a problem that specifically arises in the internet domain and in the domain of internet advertising. Accordingly, the present application is more comparable to DDR holdings versus the cases cited by the Examiner.

In response to previously submitted arguments, the Office Action asserts that the claims to not effect an improvement to another technology or technical field, do not improve the functioning of a computer itself, and do not move beyond a general link of the use of an abstract idea to a particular technological environment.

Applicant respectfully disagrees with and traverses such assertions. In particular, as set forth above, the claims are specific to the Internet domain and the technical field of the Internet/internet based advertising. Applicant submits that the improvements to this technical field include the reverse based auction, tracking of ads, etc. In this regard, the claims as a whole clearly improve the technical field of the invention. In this regard, [0009] of the originally filed specification reflects the problems of the prior art:

**[0009]** Prior art mechanisms for advertisers to purchase an impression often utilize an online exchange where advertisers submit bids for one or more impressions (e.g., an auction for the impressions). Traditionally, bidding in an online exchange is done by: identifying the target audience (collective profile of portrayed users)(e.g., using demographic information); selecting the sites and parameters of the advertising campaign; and selecting a maximum bid for the ad exchange auction. Such a system merely provides a minimal amount of detail regarding the ad impression(s) the advertiser is bidding on. Further, such a system fails to provide the advertiser with the capability to negotiate an optimal advertisement campaign with multiple publishers (i.e., entities that have advertisement impressions for sale).

Further, paragraphs [0012]-[0018] describe the prior art problems in detail while paragraphs [0059]-[0060] describe some of the advantages of the present invention – which clearly set forth improvements in the technical field and illustrate that the claims are not merely

directed to a general link of an abstract idea in a particular technological environment. In this regard, Applicant submits that the context and nature of the claims are specifically related and tied to the Internet computer based technical environment and cannot be implemented or used outside of such an environment.

#### IV. Prior Art Rejections

The Office Action rejects claims 1-5, 7, 9-15, 17, 19-20 under 35 U.S.C. 103(a) as being unpatentable over Sweeney (US 2015/0095166), in view of Umeda (US 2013/0066725) and further in view of Rabbitt et al (US 10,108,971).

The Office Action rejects claims 6 and 16 under 35 U.S.C. 103(a) as being unpatentable over Sweeney, in view of Umeda, in further view of Rabbitt, and in further view of Cochran et al (US 20090125398).

The Office Action rejects claims 8 and 18 under 35 U.S.C. 103(a) as being unpatentable over Sweeney, in view of Umeda, in further view of Rabbitt, and in further view of Singh et al (US 2009/0293067).

Applicant traverses the above rejections for one or more of the following reasons:

(1) None of the cited references teach, disclose or suggest a pixel that is inserted/fired by a publisher yet received by an advertiser and provides the ability for the advertiser to collect statistics of users receiving the ads placed by the publisher;

(2) None of the cited references teach, disclose or suggest the ability to analyze statistics (collected from a publisher's pixel) to determine user bases of the publisher; and

(3) None of the cited references teach, disclose or suggest the ability to determine, based on the publisher's pixel, during the online based auction, a reach and frequency that the publisher, that provided the successful bid, can fulfil; and

(4) None of the cited references teach, disclose, or suggest the insertion by a publisher of a publisher's pixel that includes a user identification of the user that receives the advertisements, yet the pixel is read by the advertising purchaser.

The present claims are directed towards bidding for an advertising impression. In particular, a publisher specification is defined and provides impression information regarding

impressions desired by the advertising purchaser. The impressions are individual instances when an online advertisement is shown to a particular user via the Internet. A reverse online-based auction is conducted by receiving (via the Internet) bids from publishers (and the bids comply with the publisher specification). In this regard, the claims were previously amended to provide that the publishers have impressions to sell to the advertising purchaser. Of note is that even though the publisher is selling ads to advertisers, it is the publisher that is submitting a bid in the auction. The auction determines which publisher has provided a successful bid. The advertising purchaser is then enabled to provide (via the Internet) the advertisements (for use in the impressions) to the successful bidding publisher. As a result of the above claim steps, an advertising spot/impression is converted into an actual advertisement via a reverse auction where advertisers solicit bids from publishers that are going to get paid for displaying the advertisements.

The claims additionally provide for a publisher inserting/firing a publisher's pixel into the ads that are delivered. The pixel includes a user identification of the user that receives the ads. The advertising purchaser receives the publisher's pixel and collects statistics of users receiving the advertisements (based on the publisher's pixel). As amended, based on the publisher's pixel, during the online based auction, a reach and frequency that the publisher, that provided the successful bid can fulfill is determined. In addition, the statistics are analyzed to determine user bases of the publishers. Lastly, the statistics and user bases are used in a subsequent bidding process.

In response to previously submitted arguments and amendments, the present Action combines the previously cited references with Rabbitt. Specifically, for the publisher inserting publisher's pixel into the ads, the Action relies on Rabbitt 12:13-37. Applicant notes that Rabbit does not disclose a publisher inserting the pixel but instead, an ad server inserts the pixel via the easy link. In this regard, Rabbit describes a publisher inserting easy link software code into a web page's source code, and when a computer requests the web page source code, and loads it into a user computer's web browser, the easy link software code sets up the advertisement area in the web page and causes the user computer to request an electronic ad from the ad server (see Rabbitt C6,L2-12). The easy link code identifies the advertiser/ad server that will be providing

the ad. The pixel beacon that Rabbitt describes is within an image ta in the software code (see Rabbitt C6,L36-61). Rabbitt describes the pixel beacon hyperlink that includes an address portion that points to ad tracking software in the ad server. Further, Rabbit describes that the pixel beacon can be in the easy link software (which is not the ad itself) or can be placed in each advertisement (which is actually retrieved from the ad server) (see Rabbitt C11,L60-C12,L37). In this regard, nowhere in Rabbitt is there any description of a publisher actually placing the pixel into the advertisement itself. In contrast, the present claims provides that the publisher inserts the publisher's pixel into the ads (the publisher of the web site inserts the pixel and not the ad provider/server).

Further to the above, Rabbitt provides that the same entity that places the pixel into the ad is the entity that receives the pixel later to collect statistics. Such a use of the same entity in Rabbitt is similar to the use of cookies that require only the entity storing the cookie to retrieve that cookie later.

To further differentiate cookies and the cited references, Applicant has amended the claims to incorporate the limitations of claim 10. Specifically, the claims provide that the publisher's pixel comprises a user identification of the user that receives the advertisements. In rejecting prior claim 10, the Action relied on Umeda's description in FIG. 13A, [0173]-[0174], and [0178] relying on Umeda's use of cookies to track users. Applicant again notes that the claimed use of the pixel cannot be equivalent to the use of cookies. Specifically, the term "cookie" as defined in Wikipedia (and as used in Umeda) is a small piece of data sent from a website and stored on the user's computer by the user's web browser while the user is browsing. Further, as is well known, only the website that created the cookie can access the cookie stored in the user's web browser. In contrast to such a traditional user of cookies, the present claims explicitly provide that the publisher actually inserts the publisher's pixel into the advertisements while the advertising purchaser receives the publisher's pixel. Accordingly, an entity different that the entity that placed the pixel is actually receiving the pixel. Such a use is in direct contrast to the limitations of cookies wherein the entity that stores the cookie is the only entity that can later read that cookie. In this regard, if Umeda's cookie is placed by a publisher, then the ad server/advertising purchase would not be able to read the cookie (by definition of a cookie).

Thus, the claimed user ID inserted by the publisher can NOT be a cookie. Umeda's [0173]-[0174] explicitly describes a website utilizing cookies to track visitor preferences. Again, a user id stored in a pixel is not even remotely similar to Umeda's cookies or cookies as known in the art. This is particularly true as the claimed pixel is inserted by a publisher and received (and used) by an advertising purchaser – a task that can not be performed using cookies.

In addition, Applicant has amended the independent claims (by incorporating limitations from prior claim 9) to provide for determining, based on the publisher's pixel, during the online based auction, a reach and frequency that the publisher, that provided the successful bid, can fulfill. Nowhere in the cited references is there any ability for a third party such as an advertiser or advertising exchange to determine the reach and frequency of a different entity – i.e., the reach and frequency of a particular publisher/website.

In rejecting prior claims 9 and 19, the Action relies on Chandler-Peplnjak [0030]-[0031]. However, when looking at the rejection, the rejection appears to omit some of the claim language. Specifically, when applying Chandler-Peplnjak, the Action removes the language “based on the publisher's pixel, during the online based auction”. Such claim language cannot simply be ignored when rejecting the claims. These two claim limitations provide a functional advantage over the prior art in that it is based on actual ads delivered and that are tracked via pixels placed in an ad by a publisher - such a teaching is not merely tracking ads across multiple publisher websites but is more specific and the details claimed are not specified in Chandler-Peplnjak or other references. In this regard, Chandler-Peplnjak describes the ability to use simulated campaign data (in the form of simulation-derived curves) to predict the number of users who received at least a pre-determined number of impressions (see [0030]-[0031]). In other words, while the present claims are making a determination regarding the reach and frequency during and while an auction is being conducted (and based on a pixel that was inserted into an actual ad that was delivered to a user), Chandler-Peplnjak merely created simulation derived-curves for a simulated ad campaign to determine the effective reach of the simulated ad campaign. Such a teaching is not even remotely similar to the live determination that is being conducted in the present claims.

Moreover, the various elements of Applicants' claimed invention together provide operational advantages over Sweeney, Umeda, Rabbitt, Cochran, Singh, and Chandler-Peplnjak. In addition, Applicants' invention solves problems not recognized by Sweeney, Umeda, Rabbitt, Cochran, Singh, and Chandler-Peplnjak.

Thus, Applicants submit that independent claims 1 and 11 are allowable over Sweeney, Umeda, Cochran and Singh. Further, dependent claims 2-8 and 12-18 are submitted to be allowable over Sweeney, Umeda, Rabbitt, Cochran, Singh, and Chandler-Peplnjak in the same manner, because they are dependent on independent claims 1, and 10, respectively, and thus contain all the limitations of the independent claims. In addition, dependent claims 2-8 and 12-18 recite additional novel elements not shown by Sweeney, Umeda, Rabbitt, Cochran, Singh, and Chandler-Peplnjak.

V. Conclusion

In view of the above, it is submitted that this application is now in good order for allowance and such allowance is respectfully solicited. Should the Examiner believe minor matters still remain that can be resolved in a telephone interview, the Examiner is urged to call Applicants' undersigned attorney.

Respectfully submitted,

GATES & COOPER LLP  
Attorneys for Applicant(s)

Howard Hughes Center  
6060 Center Drive, Suite 830  
Los Angeles, California 90045  
(310) 641-8797

Date: August 19, 2019

By: Jason S. Feldmar  
Name: Jason S. Feldmar  
Reg. No.: 39,187

JSF/rf