APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/474,962	09/02/2014	Jason J. A. Knapp	257.79-US-U1	4636

105454   7590   05/17/2019

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EXAMINER
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ART UNIT	PAPER NUMBER
3682	

NOTIFICATION DATE	DELIVERY MODE
05/17/2019	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):

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	Office Action Summary	**Application No.** 14/474,962	**Applicant(s)** Knapp et al.
		Examiner RADU ANDREI	**Art Unit** 3682	**AIA (FITF) 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 4/16/2019.
   ☐ 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) ___1-20___ 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) 1-20 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 <u>allowable</u>, 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

The present application, filed on 9/2/2014 is being examined under the AIA first inventor to file provisions.

The following is a FINAL OFFICE ACTION in response to Applicant's amendments filed on 4/16/2019.

    a. Claims 1, 9-11, 19-20 are amended

Overall, **Claims 1-20** are pending and have been considered below.

Because the USPTO Guidelines for eligibility determination have changed during the course of the examination of the instant application (see 2019 PEG) and in view of Applicant's amendments, Examiner, based on the two-step process for analysis, will now more clearly point to material from the latest guidelines that further lay the foundation for determination that the claims are patent ineligible. This eligibility examination does not constitute new grounds of rejection.

Claim Rejections - 35 USC § 101

35 USC 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.

Claims 1-20 are rejected under 35 USC 101 because the claimed invention is not directed to patent eligible subject matter. The claimed matter is directed to a judicial exception (i.e. an abstract idea not integrated into a practical application) without significantly more.

Per Step 1 and Step 2A of the two-step eligibility analysis, independent Claim 1 and Claim 11 and the therefrom dependent claims are directed respectively to a computer

implemented method and to a system. Thus, on its face, each such independent claim and the therefrom dependent claims are directed to a statutory category of invention.

However, Claim 1, (which is repeated in Claim 11) is rejected under 35 U.S.C. 101 because the claim is directed to an abstract idea, a judicial exception, without reciting additional elements that integrate the judicial exception into a practical application. The claim recites defining publisher specifications, conducting an online auction, determining the successful bid, providing advertisements to the successful bid publisher. The limitations, as drafted, constitute a process that, under its broadest reasonable interpretation, covers commercial activity, but for the recitation of generic computer components ("in a processor in a computer"). That is, the drafted process is comparable to an advertising, business relationships (i.e. auction) process, i.e. a process aimed at providing advertisements to the successful bidder. If a claim limitation, under its broadest reasonable interpretation, covers performance of limitations of agreements in form of contracts, legal obligations, advertising, marketing, sales activities or behaviors, business relationships, but for the recitation of generic computer components, then it falls within the "Certain Methods of Organizing Human Activity – Commercial or Legal Interactions (e.g. agreements in form of contracts, legal obligations, advertising, marketing, sales activities or behaviors, business relationships)" grouping of abstract ideas. Accordingly, the claim recites an abstract idea.

This abstract idea is not integrated into a practical application. In particular, stripped of those claim elements that are directed to an abstract idea, the remaining positively recited elements of the independent claims are directed to inserting a pixel into advertisement, receiving the pixel, analyzing statistics, determining customer base. These claim elements amount to no more than insignificant extra-solution activity (MPEP 2106.05(g)). The non-positively recited claim elements are the publisher specification, the impressions, the one or more bids, the one or more publishers. While these descriptive elements may provide further helpful context for the claimed invention, they do not serve to integrate the abstract idea into a practical application. The recited computer elements, i.e. a processor, a memory, are recited at a high-level of generality (i.e. as a generic computing device performing generic computer functions of obtaining data, interpreting the obtained data and providing results), such that they amount to no more than mere instructions to apply the exception using generic computer components.

Accordingly, these additional claim elements do not integrate the abstract idea into a practical application, because they do not impose any meaningful limits on practicing the abstract idea. Per Step 2A, the claim is directed to <u>an abstract idea not integrated into a practical application</u>.

Step 2B of the eligibility analysis concludes that the claim does not include additional elements that are sufficient to amount to <u>significantly more than the judicial exception</u>. Stripped of those claim elements that are directed to an abstract idea, not integrated into a practical application, the remaining positively recited elements of the <u>independent claims</u> are directed to inserting a pixel into advertisement, receiving the pixel, analyzing statistics, determining customer base. When considered <u>individually</u>, these additional claim elements represent "Insignificant Extra-Solution (Pre-Solution and/or Post-Solution) Activity", i.e. activities incidental to the primary process or product that are merely a nominal or tangential addition to the claims. Specifically, the limitations are considered post-solution activity because they are mere outputting or post-processing results from executing the abstract idea. (MPEP 2106.05(g)) It is readily apparent that the claim elements are not directed to any specific improvements of the claims.

Furthermore, the <u>independent claims</u> contain descriptive limitations, not positively recited limitations of elements found in the independent claims and addressed above, such as describing the nature, structure and/or content of the publisher specification, the impressions, the one or more bids, the one or more publishers. However, these elements do not require any steps or functions to be performed and thus do not involve the use of any computing functions. While these descriptive elements may provide further helpful context for the claimed invention, these elements do not serve to confer subject matter eligibility to the claimed invention since their individual and combined significance is still not heavier than the abstract concepts at the core of the claimed invention.

After stripping away the abstract idea claim elements, the additional positively recited steps and descriptive claim elements, the only remaining elements of the <u>independent claims</u> are directed to a processor, a memory. When considered <u>individually</u>, these additional claim elements serve merely to implement the abstract idea using computer components performing computer functions. They do not constitute "Improvements to the Functioning of a Computer or

to Any Other Technology or Technical Field". (MPEP 2106.05(a)) It is readily apparent that the claim elements are not directed to any specific improvements of any of these areas.

When the <u>independent claims are considered as a whole, as a combination</u>, the claim elements noted above do not amount to any more than they amount to individually. The operations appear to merely apply the abstract concept to a technical environment in a very general sense – i.e. a computer receives information from another computer, processes that information and then sends a response based on processing results. The most significant elements of the claims, that is the elements that really outline the inventive elements of the claims, are set forth in the elements identified as an abstract idea. Therefore, it is concluded that the elements of the independent claims are directed to one or more abstract ideas and do not amount to significantly more. (MPEP 2106.05)

Further, Step 2B of the analysis takes into consideration <u>all dependent claims</u> as well, both individually and as a whole, as a combination.

Dependent Claims 6-7 (which are repeated in Claims 16-17) are not directed to any additional abstract ideas, but are directed to additional claim elements such as to soliciting one or more bids, displaying a closing price. When considered <u>individually</u>, these additional claim elements represent "Insignificant Extra-Solution (Pre-Solution and/or Post-Solution) Activity", i.e. activities incidental to the primary process or product that are merely a nominal or tangential addition to the claims. Specifically, soliciting one or more bids are considered pre-solution activity because they are mere gathering or pre-processing data/information in conjunction with the abstract idea, while displaying a closing price are considered post-solution activity because they are mere outputting or post-processing results from executing the abstract idea. (MPEP 2106.05(g)) It is readily apparent that the claim elements are not directed to any specific improvements of the claims.

Dependent Claim 9 (which is repeated in Claim 19) is not directed to any additional abstract ideas, but is directed to additional claim elements such as to determining a reach and frequency that the publisher can fulfill. When considered <u>individually</u>, these additional claim elements represent "Insignificant Extra-Solution (Pre-Solution and/or Post-Solution) Activity", i.e. activities incidental to the primary process or product that are merely a nominal or tangential addition to the claims. Specifically, the limitations are considered post-solution activity because they are mere outputting or post-processing results from executing the abstract idea. (MPEP

2106.05(g)) It is readily apparent that the claim elements are not directed to any specific improvements of the claims.

Dependent Claims 2-5, 8, 10 (which are repeated in Claims 12-15, 18, 20 respectively) are not directed to any abstract ideas and are not directed to any additional non-abstract claim elements. Rather, these non-positively recited claims provide further descriptive limitations of elements, such as describing the nature, structure and/or content of the publisher specification, the auction, publisher's pixel. However, these elements do not require any steps or functions to be performed and thus do not involve the use of any computing functions. While these descriptive elements may provide further helpful context for the claimed invention, these elements do not serve to confer subject matter eligibility to the invention since their individual and combined significance is still not heavier than the abstract concepts at the core of the claimed invention.

Moreover, the claims in the instant application <u>do not constitute significantly more</u> also because the claims or claim elements only serve to implement the abstract idea using computer components to perform computing functions (*Enfish,* MPEP 2106.05(a)). Specifically, the computing system encompasses general purpose hardware and software modules, as disclosed in the application specification in fig2 and [0028]-[0036], including among others general purpose processor, memory, GUI, pointing device, keyboard printer, and OS.

When the <u>dependent claims are considered as a whole, as a combination</u>, the additional elements noted above appear to merely apply the abstract concept to a technical environment in a very general sense – i.e. a computer receives information from another computer, processes that information and then sends a response based on processing results. The most significant elements of the claims, that is the elements that really outline the inventive elements of the claims, are set forth in the elements identified in the independent claims as an abstract idea. The fact that the computing devices are facilitating the abstract concept is not enough to confer statutory subject matter eligibility. In sum, the additional elements do not serve to confer subject matter eligibility to the invention since their individual and combined significance is still not heavier than the abstract concepts at the core of the claimed invention. Therefore, it is concluded that the dependent claims of the instant application do not amount to significantly more either. (MPEP 2106.05)

Therefore, Claims 1-20 are rejected under 35 USC 101 as being directed to non-statutory subject matter.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained through the invention is not identically disclosed or described as
> set forth in section 102 of this title, if the differences between the subject matter sought to be
> patented and the prior art are such that the subject matter as a whole would have been obvious at
> the time the invention was made to a person having ordinary skill in the art to which said subject
> matter pertains. Patentability shall not be negatived by the manner in which the invention was
> made.

The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966),
that are applied for establishing a background for determining obviousness under 35 U.S.C.
103(a) are summarized as follows:
   i.   Determining the scope and contents of the prior art.
   ii.   Ascertaining the differences between the prior art and the claims at issue.
   iii.   Resolving the level of ordinary skill in the pertinent art.
   iv.   Considering objective evidence present in the application indicating obviousness or
       nonobviousness.

**Claims 1-5, 7, 10-15, 17, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over
Sweeney (US 2015/0095166), in view of Umeda (US 2013/0066725), in further view of
Rabbitt et al (US 10,108,971).**

Regarding Claims 1, 11 – Sweeney discloses: A computer-implemented method for bidding for
an advertising impression, comprising:

(a) a server computer having a processor and memory; (see at least fig1, rc18, rc20,
[0063]-[0065] server (reads implicitly on processor and memory)}

(b) an advertising exchange application executed by the processor on the server (see at
least fig1, rc18, rc20, [0063]-[0065] the platform may include an ad exchange}

conducting an online based auction comprising a reverse auction by receiving, via the
Internet network, one or more bids from one or more publishers, (see at least [0113]-[0123]
bidding period ... reverse auction ... impressions awarded to publishers (reads on reverse
auction); figs8A-8C, [0204] process of reverse auction}

wherein the one or more bids comply with the publisher specification, and (see at least
[0028]-[0029] publisher ... attribute ... control quality attribute ... impression attribute; [0059]
reverse auction ... content quality attribute; [0143] advertise campaign parameters (reads on
publisher specification)}

wherein the one or more publishers have impressions to sell to the advertising purchaser; {see at least [0116], [0122] publishers ... number of impressions}

determining, in a processor in a computer, which of the one or more publishers has provided a successful bid; and {see at least [0119]-[0123] winning bid ... auction winner; [0204] win notification}

enabling, via the processor in the computer, the advertising purchaser to provide, via the Internet network, one or more advertisements, for use in the impressions, to the one or more publishers that provided the successful bid. {see at least figs8A-8C, [0204] upload creatives; fig5, [0122] find bid information}

Sweeney does not disclose, however, Umeda discloses:

defining, via input from an advertising purchaser, a publisher specification, {see at least fig18, rc1804, [0242] cost-per-mille or other suggested selling price provided by publisher ... advertisement attributes associated with the impression (reads on publisher specification)}

wherein the publisher specification comprises impression information regarding impressions desired by the advertising purchaser, {see at least fig18, rc1804, [0242] advertisement attributes associated with the impression ... provide by publisher (reads on publisher specification)}

wherein the impressions comprise individual instances when an online advertisement is shown to a particular user via an Internet network; {see at least [0051] user views the Internet ... reads on impressions provided over the Internet; [0182]-[0183] internet campaigns; [0199] Internet market}

collecting statistics of users receiving the one or more advertisements ...; and {see at least fig18, rc1814, [0249] the platform collects statistics related to ad campaigns}

analyzing the statistics and {see at least fig18, rc1816, [0250] evaluates various statistics}

In addition, it would have been obvious to one of ordinary skill in the art, at the time of filing, to modify Sweeney to include the elements of Umeda. One would have been motivated to do so, in order to better target the auction. Furthermore, the Supreme Court has supported that combining well known prior art elements, in a well-known manner, to obtain predictable results is sufficient to determine an invention obvious over such combination (see *KSR International Co. v. Teleflex Inc. (KSR)*, 550 U.S.,82 USPQ2d 1385 (2007) & MPEP 2143). In the instant case, Sweeney evidently discloses conducting a reverse auction, determining a successful bid

and providing the advertisement. Umeda is merely relied upon to illustrate the functionality of a publisher specification in the same or similar context. As best understood by Examiner, since both conducting a reverse auction, determining a successful bid and providing the advertisement, as well as a publisher specification are implemented through well-known computer technologies in the same or similar context, combining their features as outlined above using such well-known computer technologies (i.e., conventional software/hardware configurations), would be reasonable, according to one of ordinary skill in the art. Moreover, since the elements disclosed by Sweeney, as well as Umeda would function in the same manner in combination as they do in their separate embodiments, it would be reasonable to conclude that their resulting combination would be predictable. Accordingly, the claimed subject matter is obvious over Sweeney / Umeda.

Sweeney, Umeda does not disclose, however, Rabbitt discloses:

the publisher that provided the successful bid inserting a publisher's pixel into the one or more advertisements; {see at least (53)-(54)/[12:13-37] pixel placed in each advertisement (reads on inserting); (31)/[6:35-60] pixel tracks publisher-advertiser relationship ("bids") (reads on auction)}

the advertising purchaser receiving the publisher's pixel and {see at least (53)-(54)/[12:13-37] impressions can be tracked (reads on receiving the pixel);}

... based on the publisher's pixel {see at least {see at least (53)-(54)/[12:13-37] pixel placed in each advertisement (reads on inserting)}

determining one or more user bases of the one or more publishers {see at least fig4, (27)/[5:20-42], (31)/[6:35-60] pixel tracks publisher-advertiser relationship ("bids"); (34)/[7:13-32] list of advertiser affiliated with the publisher (reads on user base); [claim5], [claim14] publisher-advertiser relationship (reads on user base)

... based on the publisher's pixel, during the online based auction, ... {see at least (53)-(54)/[12:13-37] pixel placed in each advertisement (reads on inserting); (31)/[6:35-60] pixel tracks publisher-advertiser relationship ("bids") (reads on auction)}

In addition, it would have been obvious to one of ordinary skill in the art, at the time of filing, to modify Sweeney, Umeda to include the elements of Rabbitt. One would have been motivated to do so, in order to create, update and keep track of a user database. Furthermore, the Supreme Court has supported that combining well known prior art elements, in a well-known manner, to obtain predictable results is sufficient to determine an invention obvious over such combination

(see *KSR International Co. v. Teleflex Inc. (KSR)*, 550 U.S.,82 USPQ2d 1385 (2007) & MPEP 2143). In the instant case, Sweeney, Umeda evidently discloses conducting a reverse auction, determining a successful bid and providing the advertisement. Rabbitt is merely relied upon to illustrate the functionality of inserting pixels in advertisements, as well as collecting and analyzing statistics about users in the same or similar context in the same or similar context. As best understood by Examiner, since both conducting a reverse auction, determining a successful bid and providing the advertisement, as well as inserting pixels in advertisements, as well as collecting and analyzing statistics about users in the same or similar context are implemented through well-known computer technologies in the same or similar context, combining their features as outlined above using such well-known computer technologies (i.e., conventional software/hardware configurations), would be reasonable, according to one of ordinary skill in the art. Moreover, since the elements disclosed by Sweeney, Umeda, as well as Rabbitt would function in the same manner in combination as they do in their separate embodiments, it would be reasonable to conclude that their resulting combination would be predictable. Accordingly, the claimed subject matter is obvious over Sweeney, Umeda / Rabbitt.

Regarding Claims 2, 12 – Sweeney, Umeda, Rabbitt discloses the limitations of Claims 1, 11. Sweeney further discloses: wherein the publisher specification comprises:

a maximum price {see at least [0068] bid rate; [0176] max bid; [claim 25] maximum bid}; a total number of impressions {see at least [0068] maximum number of impressions}; and an impression per user frequency. {see at least [0101] frequency ... optimal amount of frequency}

Regarding Claims 3, 13 – Sweeney, Umeda, Rabbitt discloses the limitations of Claims 1, 11. Umeda further discloses: wherein the publisher specification comprises:

an identification of one or more users. {see at least fig13A, [0173]-[0174], [0178] cookies to track users (reads on user identification)}

In addition, it would have been obvious to one of ordinary skill in the art, at the time of filing, to modify Sweeney, Umeda, Rabbitt to include additional elements of Umeda. One would have been motivated to do so, in order to create and keep track of a user database. In the instant case, Sweeney, Umeda, Rabbitt evidently discloses conducting a reverse auction, determining a successful bid and providing the advertisement (as discussed above in reference to Claims 1, 11). Umeda is merely relied upon to illustrate the additional functionality of a user identification in the same or similar context. Since the subject matter is merely a combination of old elements,

and in the combination each element would have performed the same function it performed separately, one having ordinary skill in the art before the effective filing date would have recognized that the results of the combination were predictable.

Regarding Claims 4, 14 – Sweeney, Umeda, Rabbitt discloses the limitations of Claims 1, 11. Umeda further discloses: wherein the publisher specification comprises:

an identification of a user demographic. (see at least [0036] user demography; [0233], [0238] demographic targeting; [0242] demographic data of a user; [0248] user demography)

In addition, it would have been obvious to one of ordinary skill in the art, at the time of filing, to modify Sweeney, Umeda, Rabbitt to include additional elements of Umeda. One would have been motivated to do so, in order to create and keep track of a user database. In the instant case, Sweeney, Umeda, Rabbitt evidently discloses conducting a reverse auction, determining a successful bid and providing the advertisement (as discussed above in reference to Claims 1, 11). Umeda is merely relied upon to illustrate the additional functionality of a user demographic identification in the same or similar context. Since the subject matter is merely a combination of old elements, and in the combination each element would have performed the same function it performed separately, one having ordinary skill in the art before the effective filing date would have recognized that the results of the combination were predictable.

Regarding Claims 5, 15 – Sweeney, Umeda, Rabbitt discloses the limitations of Claims 1, 11. Umeda further discloses: wherein the publisher specification comprises:

an impression quality rank that is based on a measure of a probability of an actual advertising impression being seen and acted upon by an end consumer. (see at least fig14, rc1425, [0159] ... the ad platform determines the probability of occurrence of each possible user interaction with the advertisement within that partition. Further, the ad platform utilizes a weighed score associated with each user interaction, where the weighted score reflects the value of each user interaction within that partition to the advertiser.)

In addition, it would have been obvious to one of ordinary skill in the art, at the time of filing, to modify Sweeney, Umeda, Rabbitt to include additional elements of Umeda. One would have been motivated to do so, in order to structure the impression database (ranking allows for a faster selection). In the instant case, Sweeney, Umeda, Rabbitt evidently discloses conducting a reverse auction, determining a successful bid and providing the advertisement (as discussed

above in reference to Claims 1, 11). Umeda is merely relied upon to illustrate the additional functionality of a ranking impressions in the same or similar context. Since the subject matter is merely a combination of old elements, and in the combination each element would have performed the same function it performed separately, one having ordinary skill in the art before the effective filing date would have recognized that the results of the combination were predictable.

Regarding Claims 7, 17 – Sweeney, Umeda, Rabbitt discloses the limitations of Claims 1, 11. Umeda further discloses:

displaying a closing price of the auction. (see at least [0171] publishers to track such saved ads and count the effective impressions from replays towards the determination of final cost of the ad campaign (reads implicitly on disclosing the closing price; it's need to determine the final cost of the ad campaign))

In addition, it would have been obvious to one of ordinary skill in the art, at the time of filing, to modify Sweeney, Umeda, Rabbitt to include additional elements of Umeda. One would have been motivated to do so, in order to augment the credibility into the process by making it more transparent. In the instant case, Sweeney, Umeda, Rabbitt evidently discloses conducting a reverse auction, determining a successful bid and providing the advertisement (as discussed above in reference to Claims 1, 11). Umeda is merely relied upon to illustrate the additional functionality of displaying a closing price in the same or similar context. Since the subject matter is merely a combination of old elements, and in the combination each element would have performed the same function it performed separately, one having ordinary skill in the art before the effective filing date would have recognized that the results of the combination were predictable.

Regarding Claims 10, 20 – Sweeney, Umeda, Rabbitt discloses the limitations of Claims 1, 11. Umeda further discloses:

wherein the publisher's pixel comprises a user identification. (see at least fig13A, [0173]-[0174], [0178] cookies to track users (reads on user identification))

In addition, it would have been obvious to one of ordinary skill in the art, at the time of filing, to modify Sweeney, Umeda, Rabbitt to include additional elements of Umeda. One would have been motivated to do so, in order to create and keep track of a user database. In the instant

case, Sweeney, Umeda, Rabbitt evidently discloses conducting a reverse auction, determining a successful bid and providing the advertisement (as discussed above in reference to Claims 1, 11). Umeda is merely relied upon to illustrate the additional functionality of a user identification in the same or similar context. Since the subject matter is merely a combination of old elements, and in the combination each element would have performed the same function it performed separately, one having ordinary skill in the art before the effective filing date would have recognized that the results of the combination were predictable.

Claims 6, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sweeney (US 2015/0095166), in view of Umeda (US 2013/0066725), in further view of Rabbitt et al (US 10,108,971), in further view of Cochran et al (US 20090125398).

Regarding Claims 6, 16 – Sweeney, Umeda, Rabbitt discloses the limitations of Claims 1, 11. Sweeney, Umeda, Rabbitt does not disclose, however, Cochran discloses:

soliciting the one or more bids, from the one or more publishers, based on the publisher specification. (see at least [0023], [0052], [0054], [0069]-[0070] soliciting bids)

In addition, it would have been obvious to one of ordinary skill in the art, at the time of filing, to modify Sweeney, Umeda, Rabbitt to include the elements of Cochran. One would have been motivated to do so, in order to control the starting of the auction process. Furthermore, the Supreme Court has supported that combining well known prior art elements, in a well-known manner, to obtain predictable results is sufficient to determine an invention obvious over such combination (see *KSR International Co. v. Teleflex Inc. (KSR)*, 550 U.S.,82 USPQ2d 1385 (2007) & MPEP 2143). In the instant case, Sweeney, Umeda, Rabbitt evidently discloses conducting a reverse auction, determining a successful bid and providing the advertisement. Cochran is merely relied upon to illustrate the functionality of soliciting bids in the same or similar context. As best understood by Examiner, since both conducting a reverse auction, determining a successful bid and providing the advertisement, as well as soliciting bids are implemented through well-known computer technologies in the same or similar context, combining their features as outlined above using such well-known computer technologies (i.e., conventional software/hardware configurations), would be reasonable, according to one of ordinary skill in the art. Moreover, since the elements disclosed by Sweeney, Umeda, Rabbitt, as well as Cochran would function in the same manner in combination as they do in their separate embodiments, it would be reasonable to conclude that their resulting combination

would be predictable. Accordingly, the claimed subject matter is obvious over Sweeney,
Umeda, Rabbitt / Cochran.

**Claims 8, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sweeney (US
2015/0095166), in view of Umeda (US 2013/0066725), in further view of Rabbitt et al (US
10,108,971), in further view of Singh et al (US 2009/0293067).**
Regarding Claims 8, 18 – Sweeney, Umeda, Rabbitt discloses the limitations of Claims 1, 11.
Sweeney, Umeda, Rabbitt does not disclose, however, Singh discloses:

> wherein the auction is conducted at regularly defined time intervals. (see at least [0031]
bids accepted at a particular time ... at periodic times (reads on regularly defined time intervals)

In addition, it would have been obvious to one of ordinary skill in the art, at the time of filing, to
modify Sweeney, Umeda, Rabbitt to include the elements of Singh. One would have been
motivated to do so, in order to improve the auction odds of success by spreading the auction in
time at regular intervals. Furthermore, the Supreme Court has supported that combining well
known prior art elements, in a well-known manner, to obtain predictable results is sufficient to
determine an invention obvious over such combination (see *KSR International Co. v. Teleflex
Inc. (KSR),* 550 U.S.,82 USPQ2d 1385 (2007) & MPEP 2143). In the instant case, Sweeney,
Umeda, Rabbitt evidently discloses conducting a reverse auction, determining a successful bid
and providing the advertisement. Singh is merely relied upon to illustrate the functionality of an
auction conducted at regular intervals in the same or similar context. As best understood by
Examiner, since both conducting a reverse auction, determining a successful bid and providing
the advertisement, as well as auction conducted at regular intervals are implemented through
well-known computer technologies in the same or similar context, combining their features as
outlined above using such well-known computer technologies (i.e., conventional
software/hardware configurations), would be reasonable, according to one of ordinary skill in the
art. Moreover, since the elements disclosed by Sweeney, Umeda, Rabbitt, as well as Singh
would function in the same manner in combination as they do in their separate embodiments, it
would be reasonable to conclude that their resulting combination would be predictable.
Accordingly, the claimed subject matter is obvious over Sweeney, Umeda, Rabbitt / Singh.

Claims 9, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sweeney (US 2015/0095166), in view of Umeda (US 2013/0066725), in further view of Rabbitt et al (US 10,108,971), in further view of Chandler-Pepelnjak et al (US 2003/0074252).
Regarding Claims 9, 19 – Sweeney, Umeda, Rabbitt discloses the limitations of Claims 1, 11.
Sweeney, Umeda, Rabbitt does not discloses, however, Chandler-Pepelnjak discloses:

determining, ... a reach and frequency that the publisher, that provided the successful
bid, can fulfill. {see at least [0030]-[0031] determining the reach and the frequency}

In addition, it would have been obvious to one of ordinary skill in the art, at the time of filing, to
modify Sweeney, Umeda, Rabbitt to include the elements of Chandler-Pepelnjak. One would
have been motivated to do so, in order to gage the performance of a publisher. Furthermore,
the Supreme Court has supported that combining well known prior art elements, in a well-known
manner, to obtain predictable results is sufficient to determine an invention obvious over such
combination (see *KSR International Co. v. Teleflex Inc. (KSR)*, 550 U.S.,82 USPQ2d 1385
(2007) & MPEP 2143). In the instant case, Sweeney, Umeda, Rabbitt evidently discloses
conducting a reverse auction, determining a successful bid and providing the advertisement.
Chandler-Pepelnjak is merely relied upon to illustrate the functionality of determining the reach
and frequency of a publisher in the same or similar context. As best understood by Examiner,
since both conducting a reverse auction, determining a successful bid and providing the
advertisement, as well as determining the reach and frequency of a publisher are implemented
through well-known computer technologies in the same or similar context, combining their
features as outlined above using such well-known computer technologies (i.e., conventional
software/hardware configurations), would be reasonable, according to one of ordinary skill in the
art. Moreover, since the elements disclosed by Sweeney, Umeda, Rabbitt, as well as Chandler-
Pepelnjak would function in the same manner in combination as they do in their separate
embodiments, it would be reasonable to conclude that their resulting combination would be
predictable. Accordingly, the claimed subject matter is obvious over Sweeney, Umeda, Rabbitt /
Chandler-Pepelnjak.

Response to Amendments/Arguments
Applicant's remarks filed on 4/16/2019 have been fully considered.

Applicant respectfully disagrees with the OA conclusions and asserts that the presented claims fully comply with the requirements of 35 U.S.C. § 101. Further, Applicant is of the opinion that the prior art fails to teach Applicant's invention.

Examiner respectfully disagrees in both regards.

With respect to Applicant's Remarks as to the claims being rejected under *35 USC § 101.*

Applicant submits:

A. The pending claims are not directed to a judicial exception.

B. The pending claims contain an inventive concept. Furthermore, Applicant asserts that the Office has failed to meet its burden to establish that the pending claims do not contain an inventive concept.

Examiner responds – The arguments have been considered in light of Applicants' amendments to the claims. The arguments ARE NOT PERSUASIVE. Therefore, the rejection is maintained.

The instant claims, as a whole, do not amount to significantly more than the abstract idea itself. This is because the claims

> (a) <u>do not effect an improvement to another technology or technical field</u>;

> (b) <u>do not amount to an improvement to the functioning of a computer itself</u>;

> (c) <u>do not move beyond a general link of the use of an abstract idea to a particular</u> <u>technological environment</u>.

The claims merely amount to the application or instructions to apply the abstract idea on a generic computer, and are considered to amount to nothing more than requiring a generic system built around a computer with user interfaces to merely carry out the abstract idea itself. As such, the claims, when considered as a whole, are nothing more than the instruction to implement the abstract idea in a particular, albeit well-understood, routine and conventional technological environment.

More specific:

Applicant submits "In view of the above, Applicant submits that the claims are patentable under step 2A prong I of the PEA." Examiner has carefully considered, but doesn't find Applicant's arguments persuasive. First, Applicant's remarks refer to the rejection from

8/28/2018, which precedes the issuing of the 2019 PEG (1/7/2019). As such, Applicant's remarks are moot.

Second, the eligibility analysis in the instant Office action, which fully complies with the 2019 PEG, concludes at Step 2A Prong One:

Claim 1, (which is repeated in Claim 11) is rejected under 35 U.S.C. 101 because the claim is directed to an abstract idea, a judicial exception, without reciting additional elements that integrate the judicial exception into a practical application. The claim recites defining publisher specifications, conducting an online auction, determining the successful bid, providing advertisements to the successful bid publisher. The limitations, as drafted, constitute a process that, under its broadest reasonable interpretation, covers commercial activity, but for the recitation of generic computer components ("in a processor in a computer"). That is, the drafted process is comparable to an advertising, business relationships (i.e. auction) process, i.e. a process aimed at providing advertisements to the successful bidder. If a claim limitation, under its broadest reasonable interpretation, covers performance of limitations of agreements in form of contracts, legal obligations, advertising, marketing, sales activities or behaviors, business relationships, but for the recitation of generic computer components, then it falls within the "Certain Methods of Organizing Human Activity – Commercial or Legal Interactions (e.g. agreements in form of contracts, legal obligations, advertising, marketing, sales activities or behaviors, business relationships)" grouping of abstract ideas. Accordingly, the claim recites an abstract idea.

Therefore, the independent claims are directed to an abstract idea.

Applicant submits "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." Examiner has carefully considered, but doesn't find Applicant's arguments persuasive. The eligibility analysis in the instant Office action, which fully complies with the 2019 PEG, concludes at Step 2A Prong Two:

This abstract idea is not integrated into a practical application. In particular, stripped of those claim elements that are directed to an abstract idea, the remaining positively recited elements of the independent claims are directed to inserting a pixel into advertisement, receiving the pixel, analyzing statistics, determining customer base. These claim elements amount to no more than insignificant extra-solution activity (MPEP 2106.05(g)). The non-positively recited claim elements are the publisher specification, the impressions, the one or more bids, the one or more publishers. While these descriptive elements may provide further

helpful context for the claimed invention, they do not serve to integrate the abstract idea into a practical application. The recited computer elements, i.e. a processor, a memory, are recited at a high-level of generality (i.e. as a generic computing device performing generic computer functions of obtaining data, interpreting the obtained data and providing results), such that they amount to no more than mere instructions to apply the exception using generic computer components.

Accordingly, these additional claim elements do not integrate the abstract idea into a practical application, because they do not impose any meaningful limits on practicing the abstract idea. Per Step 2A, the claim is directed to an abstract idea not integrated into a practical application.

Therefore, the identified abstract idea is not integrated into a practical application.

Applicant submits "Such an unconventional sequence of steps renders the claim eligible under step 2B." Examiner has carefully considered, but doesn't find Applicant's arguments persuasive. The eligibility analysis in the instant Office action, which fully complies with the 2019 PEG, concludes at Step 2A Prong Two:

When the independent and dependent claims are considered as a whole, as a combination, the additional elements noted above appear to merely apply the abstract concept to a technical environment in a very general sense – i.e. a computer receives information from another computer, processes that information and then sends a response based on processing results. The most significant elements of the claims, that is the elements that really outline the inventive elements of the claims, are set forth in the elements identified in the independent claims as an abstract idea. The fact that the computing devices are facilitating the abstract concept is not enough to confer statutory subject matter eligibility. In sum, the additional elements do not serve to confer subject matter eligibility to the invention since their individual and combined significance is still not heavier than the abstract concepts at the core of the claimed invention. Therefore, it is concluded that the dependent claims of the instant application do not amount to significantly more either. (MPEP 2106.05)

Therefore, the additional claim elements of the independent claims and those of the dependent claims do not constitute significantly more.

It becomes self-evident that there are no meaningful limitations in the claims that transform the judicial exception into a patent eligible application such that the claims amount to

significantly more than the judicial exception itself. Therefore, the rejection under 35 U.S.C. §
101 is maintained.

With respect to Applicant's Remarks as to the claims being rejected under *35 USC § 103*.

Applicant submits remarks and arguments geared toward the amendments. Examiner
has carefully reviewed and considered Applicant's remarks, however they ARE MOOT in light of
the fact that they are geared towards the amendments.

The other arguments presented by Applicant continually point back to the above
arguments as being the basis for the arguments against the other 103 rejections, as the other
arguments are presented only because those claims depend from the independent claims, and
the main argument above is presented against the independent claims. Therefore, it is believed
that all arguments put forth have been addressed by the points above.

Examiner has reviewed and considered all of Applicant's remarks. The changes of the
grounds for rejection, if any, have been necessitated by Applicant's extensive amendments to
the claims. Therefore, the rejection is maintained, necessitated by the extensive amendments
and by the fact that the rejection of the claims under *35 USC § 101* has not been overcome.

Conclusion

Applicants' amendments necessitated the new ground(s) of rejection presented in this
Office action. **THIS ACTION IS MADE FINAL.** 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 office 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 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 mailing date of this
office action.

Inquiries

Any inquiry concerning this communication or earlier communications from the examiner
should be directed to Radu Andrei whose telephone number is 313.446.4948. The examiner

can normally be reached on Monday – Friday 8:30am – 5pm EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ilana Spar can be reached at (571)270-7537. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

As detailed in MPEP 502.03, communications via Internet e-mail are at the discretion of the applicant. Without a written authorization by applicant in place, the USPTO will not respond via Internet e-mail to any Internet correspondence which contains information subject to the confidentiality requirement as set forth in 35 U.S.C. 122. A paper copy of such correspondence will be placed in the appropriate patent application. The following is a sample authorization form which may be used by applicant:

"Recognizing that Internet communications are not secure, I hereby authorize the USPTO to communicate with me concerning any subject matter of this application by electronic mail. I understand that a copy of these communications will be made of record in the application file."

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 through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (in U.S.A. or Canada) or 571-272-1000.

Any response to this action should be mailed to:
> Commissioner of Patents and Trademarks
> P.O. Box 1450
> Alexandria, VA 22313-1450

or faxed to 571-273-8300

Hand delivered responses should be brought to the:

> United States Patent and Trademark Office
> Customer Service Window
> Randolph Building
> 401 Dulany Street
> Alexandria, VA 22314

/Radu Andrei/
Examiner, Art Unit 3682

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 das, 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

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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 than 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

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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 at are well-understood, routine, and convention. 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

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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, 9-15,17,19-10 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

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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).

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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,

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IN THE CLAIMS

Please amend claims 1 and 11, and cancel claims 9-10 and 19-20 as follows:

1.   (CURRENTLY AMENDED) A computer-implemented method for bidding for an advertising impression, comprising:

defining, via input from an advertising purchaser, a publisher specification, wherein the publisher specification comprises impression information regarding impressions desired by the advertising purchaser, wherein the impressions comprise individual instances when an online advertisement is shown to a particular user via an Internet network;

conducting an online based auction comprising a reverse auction by receiving, via the Internet network, one or more bids from one or more publishers, wherein the one or more bids comply with the publisher specification, and wherein the one or more publishers have impressions to sell to the advertising purchaser;

determining, in a processor in a computer, which of the one or more publishers has provided a successful bid;

enabling, via the processor in the computer, the advertising purchaser to provide, via the Internet network, one or more advertisements, for use in the impressions, to the one or more publishers that provided the successful bid;

the publisher that provided the successful bid inserting a publisher's pixel into the one or more advertisements, wherein the publisher's pixel comprises a user identification of the user that receives the one or more advertisements;

the advertising purchaser receiving the publisher's pixel and collecting statistics of the users receiving the one or more advertisements based on the publisher's pixel; and

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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;

analyzing the statistics and determining one or more user bases of the one or more publishers; and

utilizing the statistics and the one or more user bases in a subsequent bidding process.

2.   (ORIGINAL) The computer-implemented method of claim 1, wherein the publisher specification comprises:

a maximum price;

a total number of impressions; and

an impression per user frequency.

3.   (ORIGINAL) The computer-implemented method of claim 1, wherein the publisher specification comprises:

an identification of one or more users.

4.   (ORIGINAL) The computer-implemented method of claim 1, wherein the publisher specification comprises:

an identification of a user demographic.

5.   (ORIGINAL) The computer-implemented method of claim 1, wherein the publisher specification comprises:

an impression quality rank that is based on a measure of a probability of an actual advertising impression being seen and acted upon by an end consumer.

6.   (ORIGINAL) The computer-implemented method of claim 1, further comprising: soliciting the one or more bids, from the one or more publishers, based on the publisher specification.

7.   (ORIGINAL) The computer-implemented method of claim 1, further comprising: displaying a closing price of the auction.

8.   (ORIGINAL) The computer-implemented method of claim 1, wherein the auction is conducted at regularly defined time intervals.

9.   (CANCELED)

10.   (CANCELED)

11.   (CURRENTLY AMENDED) An advertising exchange system for bidding for an advertising impression in computer system comprising:

(a)   a server computer having a processor and memory;

(b)   an advertising exchange application executed by the processor on the server computer, wherein the advertising exchange application is configured to:

(1)   define, via input from an advertising purchaser, a publisher specification, wherein the publisher specification comprises impression information regarding impressions desired by the advertising purchaser, wherein the impressions comprise individual instances when an online advertisement is shown to a particular user via an Internet network;

(2)   conduct an online based auction comprising a reverse auction, by receiving, via the Internet network, one or more bids from one or more publishers, wherein the one or more bids comply with the publisher specification, and wherein the one or more publishers have impressions to sell to the advertising purchaser;

(3)   determine which of the one or more publishers has provided a successful bid;

(4)   enable the advertising purchaser to provide, via the Internet network, one or more advertisements, for use in the impressions, to the one or more publishers that provided the successful bid;

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(5)   insert, via the publisher that provided the successful bid, a publisher's pixel into the one or more advertisements, wherein the publisher's pixel comprises a user identification of the user that receives the one or more advertisements;

(6)   collect, at the advertising purchaser, statistics of the users receiving the one or more advertisements based on the publisher's pixel; and

(7)   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 fulfill;

(8)   analyze the statistics and determine one or more user bases of the one or more publishers; and

(9)   utilize the statistics and the one or more user bases in a subsequent bidding process.

12.   (ORIGINAL) The advertising exchange system of claim 11, wherein the publisher specification comprises:

a maximum price;

a total number of impressions; and

an impression per user frequency.

13.   (ORIGINAL) The advertising exchange system of claim 11, wherein the publisher specification comprises:

an identification of one or more users.

14.   (ORIGINAL) The advertising exchange system of claim 11, wherein the publisher specification comprises:

an identification of a user demographic.

15.   (ORIGINAL) The advertising exchange system of claim 11, wherein the publisher specification comprises:

an impression quality rank that is based on a measure of a probability of an actual advertising impression being seen and acted upon by an end consumer.

16.   (ORIGINAL) The advertising exchange system of claim 11, wherein the advertising exchange application is further configured to:

solicit the one or more bids, from the one or more publishers, based on the publisher specification.

17.   (ORIGINAL) The advertising exchange system of claim 11, wherein the advertising exchange application is further configured to:

displaying a closing price of the auction.

18.   (ORIGINAL) The advertising exchange system of claim 11, wherein the auction is conducted at regularly defined time intervals.

19.	(CANCELED)

20.	(CANCELED)