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MANNAVA & KANG, P.C.
3201 JERMANTOWN ROAD
SUITE 525
FAIRFAX, VA 22030

EXAMINER	
FRUNZI, VICTORIA E.	

ART UNIT	PAPER NUMBER
3688	

NOTIFICATION DATE	DELIVERY MODE
05/22/2020	ELECTRONIC

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

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

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

ASHOKM@MANNAVAKANG.COM
docketing@mannavakang.com

Office Action Summary	Application No. 15/806,091	Applicant(s) KIRKBY et al.	
	Examiner VICTORIA E FRUNZI	Art Unit 3688	AIA (FITF) Status No

-- 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 5/1/2020.

☐ 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) 21-39 and 41 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5a) Of the above claim(s) _____ is/are withdrawn from consideration.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) 21-39 and 41 is/are rejected.

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

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

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

Application Papers

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

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

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

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

Priority under 35 U.S.C. § 119

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

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

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

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

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

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

Attachment(s)

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

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

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

4) ☐ Other: _____.

DETAILED ACTION

Notice of Pre-AIA or AIA Status

The present application is being examined under the pre-AIA first to invent provisions.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/1/2020 has been entered.

2. Claims 21-39 and 41 are pending, claims 1-20 and 40 are cancelled, and claims 21, 24, 30, and 34 have been amended.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112(a):

> (a) IN GENERAL.—The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.

The following is a quotation of the first paragraph of pre-AIA 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 21-39 and 41 are rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor or a joint inventor, or for pre-AIA the inventor(s), at the time the application was filed, had possession of the claimed invention.

4. Claims 21, 30, and 34 recite "modify, based on the determined delivery quality of the identified online ads and the KPIs, a number of the identified online ads for at least one of the web pages by modifying, by at least one scan server of the plurality of scan servers, the number of the identified online ads to modify the at least one of the web pages to increase or decrease the number of the identified online ads", however the Examiner does not find support for these limitations in the specification. The review of the cited paragraphs in the remarks (5/1/2020) for the alleged support, make no mention of modification or modifying the website or number of online ads. The cited paragraphs only discuss the evaluation of the KPIs for generating reports.

5. Claims 22-29, 31-33, 35-39 and 41 are also rejected as they depend on claims 21, 30, and 34 and do not cure the deficiencies of the claims.

Claim Rejections - 35 USC § 101

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

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

6. **Step 1:** The claims 21-29 are a system, claims 30-33 are a method, and claims 34-39 and 41 are a computer readable medium. Thus, each independent claim, on its

face, is directed to one of the statutory categories of 35 U.S.C. §101. However, the claims 21-39 and 41 are rejected under 35 U.S.C. 101 because the claimed invention is directed to an abstract idea without significantly more.

7. **Step 2A: Prong 1:** The claims recite determining key performance metrics of advertisements parsed from a plurality of websites to determine the effectiveness of the advertisements. The limitation falls within "Certain Methods Of Organizing Human Activity" for managing personal behavior or relationships or interactions between people (including social activities, teaching, and following rules or instructions) as well as commercial or legal interactions (including agreements in the form of contracts; legal obligations; advertising, marketing or sales activities or behaviors; business relations).

8. **Prong 2:** This judicial exception is not integrated into a practical application because the only additional elements are a processor, a memory storing machine readable instructions executed by the processor and a network interface for scanning a plurality of websites by a plurality of servers located in different locations, detecting web pages, parse web pages, identify ad beacons, determine metrics, perform cost analysis, modify the number of advertisements on a webpage, modify the at least one web page to increase or decrease the number of identified online ads, and communicate with web servers hosting web sites. The additional elements are recited at a high-level of generality (i.e., as a generic processor performing a generic computer function of processing data) such that it amounts no more than mere instructions to apply the exception using a generic computer component – MPEP 2106.05(f). The additional elements are merely adding insignificant extra-solution activity to the judicial exception by providing data in the form of scanning web pages and receiving operational

information (i.e. data gathering) - see MPEP 2106.05(g). The claimed machines are not particular, and the claim as a whole monopolizes the abstract idea of optimizing the presentation of advertisements based on gathered data metrics.

9. **Step 2B:** The claim does not include additional elements that are sufficient to amount to significantly more than the judicial exception. As discussed above with respect to integration of the abstract idea into a practical application, the additional elements of a processor, a memory storing machine readable instructions executed by the processor and a network interface for scanning a plurality of websites by a plurality of servers located in different locations, detecting web pages, parse web pages, identify ad beacons, determine metrics, perform cost analysis, modify the number of advertisements on a webpage, modify the at least one web page to increase or decrease the number of identified online ads, and communicate with web servers hosting web sites amounts to no more than mere instructions to apply the exception using a generic computer component, and to send and receive data amount to insignificant extra-solution activity. Mere instructions to apply an exception using a generic computer component, and adding insignificant extra-solution activity to the judicial exception cannot provide an inventive concept. The claims are not patent eligible.

10. As there is not support of the modification of the webpage in the specification (see 35 USC 112a), the Examiner cannot make a clear determination as to whether the modification of the webpage is an additional element that integrates the judicial exception into a practical application.

11. The dependent claims have also been considered but determined to not add significantly more to the abstract idea or integrate the judicial exception into a practical application. Claims 22, 23, 26, 27, 28, 29, 31, 32, 33, 35, 36, 37, and 38, 41 merely recite additional steps for parsing the data collected from web sites and web pages the determine metrics and make determinations about the content on web pages. Claims 24, 25, and 34 recites the scanning and the resulting display of attributes based on the scan and analysis; however the Examiner has determined they merely recite the resulting display of data.

Claim Rejections - 35 USC § 103

In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

The following is a quotation of pre-AIA 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 though the invention is not identically disclosed or described as set forth in section 102, 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.

12. **Claims 21-23, 25-27, and 29 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Netzer (U.S. Pub. No. 20110125587) in view of Calabria (U.S. Pub. No. 20050137939) in view of Zhu (U.S. Pat. No. 7308643) in view of**

Parkeh (U.S. Pub. No. 20090240677) in further view of Bodin (U.S. Pub. No. 20060224965).

13. Regarding claim 21, Netzer teaches:

14. A system comprising: a processor; a memory storing machine readable instructions that when executed by the processor cause the processor to **(Paragraph 0143)**:

15. Scan, by a plurality of scan servers located at different geographical locations **(Figure1 see US location vs Outside US location)**, a plurality of web sites **(mapping crawlers)**; detect web pages based on the scanning of the plurality of web sites; parse the web pages of the plurality of web sites **(visual crawlers)(Paragraphs 0040-0041, and 0048)**;

16. identify ad beacons from the parsed web pages; determine, based on an analysis of information that describes online ads for the client **(ad server's signature)** and an analysis of the ad beacons, whether the ad beacons identify the online ads for the client **("1. Each ad server has a unique signature of the ad tag it uses for the different ads it serves, as well as a set of parameters that are included in the signature and that vary from ad serving system to another. 2. Identify all of the tags on the page that correspond to an ad server's signature (can be achieved on mass scale through a crawler as described above but through other methods as well). 3. Parse the tag and extract information such as the URL of the creative file, the landing page, the type of ad, the size of the ad, the advertising category and more.", Paragraph 0105 and 0077)**;

17. determine metrics for the online ads for the client identified by the ad beacons; **("Incidents generation is done by analyzing the data retrieved from the crawlers (the delivery data) and the tracking pixel, and comparing it to the terms and conditions.", Paragraph 0108)**

18. determine delivery quality of the identified online ads from a set of the metrics by analyzing, from the set of the metrics **("Scoring is a way for a campaign manager/advertiser/site to know how well the advertisements are doing on the defined in the insertion order comparing the real results as opposed to the definitions in the campaign. The scoring is a number between 0 and 100. 0 is the lowest score possible and 100 is the best score possible", Paragraph 0118)**, frequency of an occurrence of content in the identified online ads based on scan frequency; and **("One simple possible scoring algorithm is as follows: Divide of the amount of incidents that occurred by the total number of advertisements found. A total incident scoring is one score for all of the incident types, giving a total score for the incidents (as described above).", Paragraph 0130)**

19. a network interface to communicate with web servers hosting the plurality of web sites operable to include the online ads for the client **(See Fig. 1)**.

20. While Netzer teaches the analysis of website and webpages using crawlers to collect data, Netzer does not expressly disclose:

- scan a plurality of web sites *based on a competitor analysis of a set of competitors of a client*

- analyzing, from the set of the metrics, frequency of an occurrence of specified content in the identified online ads based on a specified scan frequency that corresponds to the specified content;
- determine key performance indicators (KPIs) from the metrics, wherein the KPIs are configured to determine effectiveness of ads relative to content and web sites;
- perform a cost analysis for the identified online ads, by analyzing, from the KPIs, actual placement that includes an actual placement location of the identified online ads on a web page versus planned placement that includes a planned placement location of the identified online ads on the web page;
- modify, based on the determined delivery quality of the identified online ads and the KPIs, a number of the identified online ads for at least one of the web pages by
- modifying, by at least one scan server of the plurality of scan servers, the number of the identified online ads to modify the at least one of the web pages to increase or decrease the number of the identified online ads; and

21. However Calabria teaches:

22. scan a plurality of web sites based on a competitor analysis of a set of competitors of a client **(competitor assessment agent, Paragraph 0056)**

23. Therefore it would have been obvious to one of ordinary skill in the art before the effective filing date of the invention to modify the analysis of Netzer to include scan a plurality of web sites *based on a competitor analysis of a set of competitors of a client* as taught in Calabria, in order to allow the advertisers to make bid based on the data collected about competitor advertisers.

24. While Netzer in view of Calabria teaches the determination of the number of incidents (occurrences) of content or advertisements, the combination does not expressly disclose:

- analyzing, from the set of the metrics, frequency of an occurrence of specified content in the identified online ads based on a specified scan frequency that corresponds to the specified content;
- determine key performance indicators (KPIs) from the metrics, wherein the KPIs are configured to determine effectiveness of ads relative to content and web sites;
- perform a cost analysis for the identified online ads, by analyzing, from the KPIs, actual placement that includes an actual placement location of the identified online ads on a web page versus planned placement that includes a planned placement location of the identified online ads on the web page;
- modify, based on the determined delivery quality of the identified online ads and the KPIs, a number of the identified online ads for at least one of the web pages by
- modifying, by at least one scan server of the plurality of scan servers, the number of the identified online ads to modify the at least one of the web pages to increase or decrease the number of the identified online ads; and

25. However Zhu teaches:

26. analyzing, from the set of the metrics, frequency of an occurrence of specified content in the identified online ads based on a specified scan frequency that corresponds to the specified content **("URL scheduler 202 refines an optimum crawl 50 frequency for each such URL and passes the crawl frequency information on**

to URL managers 204", Col. 6 lines45-55; The Examiner interprets the URL/corresponding webpage as the specified content);

27. Therefore it would have been obvious to one of ordinary skill in the art before the effective filing date of the invention to modify the analysis of Netzer in view of Calabria to include analyzing, from the set of the metrics, frequency of an occurrence of specified content in the identified online ads based on a specified scan frequency that corresponds to the specified content, as taught in Zhu, in order to create a crawl schedule that optimizes the collection of fresh content.

28. While Netzer in view of Calabria teaches the determination of the number of incidents (occurrences) of content or advertisements and Zhu teaches scheduling the frequency of crawling a webpage, the combination does not expressly disclose:

- determine key performance indicators (KPIs) from the metrics, wherein the KPIs are configured to determine effectiveness of ads relative to content and web sites;
- perform a cost analysis for the identified online ads, by analyzing, from the KPIs, actual placement that includes an actual placement location of the identified online ads on a web page versus planned placement that includes a planned placement location of the identified online ads on the web page;
- modify, based on the determined delivery quality of the identified online ads and the KPIs, a number of the identified online ads for at least one of the web pages by
- modifying, by at least one scan server of the plurality of scan servers, the number of the identified online ads to modify the at least one of the web pages to increase or decrease the number of the identified online ads; and

29. However Parekh teaches:

30. determine key performance indicators (KPIs) from the metrics, wherein the KPIs are configured to determine effectiveness of ads relative to content and web sites **(expected ROI, Paragraph 0048, 0051)**;

31. perform a cost analysis for the identified online ads, by analyzing, from the KPIs **(expected ROI, Paragraph 0048, 0051)**,

32. modify, based on the determined delivery quality of the identified online ads and the KPIs, a number of the identified online ads for at least one of the web pages by modifying, by at least one scan server of the plurality of scan servers, the number of the identified online ads to modify the at least one of the web pages to increase or decrease the number of the identified online ads; and **("Preferably personalization operations focus on the North advertising region, which is often considered the most valuable advertising area on the SRP. For example, some embodiments focusing on the North region maintain a number of ads on the SRP while decreasing the number of ads shown in the North region, while some increase the number of ads shown in the North region. Embodiments increasing the number of ads shown on the page might similarly increase or decrease the number of ads shown in the North region. Further embodiments decreasing the number of ads shown on the page might also increase or decrease the number of ads shown in the North region. Of course, personalization operations focusing on other regions are also contemplated.", Paragraph 0035 and "CONTROL ("For example, some embodiments decrease the total number of advertisements shown on the page if the user has a low probability of clicking on sponsored listings. The advertisement- depth for the entire page can be reduced so that the least valuable**

advertisements, typically the lowest links on the less visible adverting locations, are not displayed on the search results page. The number of advertisements shown (or filtered) can be determined by using thresholds on the personalized probability of clicking on the advertisements. Alternately, if a user has a high probability of clicking on advertisements, the number of advertisements shown on the page can be increased, provided that there is sufficient advertising inventory and sufficient value, e.g. expected revenue", Paragraph 0054).

33. Therefore it would have been obvious to one of ordinary skill in the art before the effective filing date of the invention to modify the analysis of Netzer in view of Calabria in view of Zhou to include determine key performance indicators (KPIs) from the metrics, wherein the KPIs are configured to determine effectiveness of ads relative to content and web sites; perform a cost analysis for the identified online ads, by analyzing, from the KPIs, modify, based on the determined delivery quality of the identified online ads and the KPIs, a number of the identified online ads for at least one of the web pages by modifying, by at least one scan server of the plurality of scan servers, the number of the identified online ads to modify the at least one of the web pages to increase or decrease the number of the identified online ads, as taught in Parkeh, in order to optimize the placement of advertisements on a webpage.

34. While Netzer in view of Calabria teaches the determination of the number of incidents (occurrences) of content or advertisements and Zhu teaches scheduling the frequency of crawling a webpage, Parkeh teaches the modification webpage based on a set of rules, but the combination does not expressly disclose:

- actual placement that includes an actual placement location of the identified online ads on a web page versus planned placement that includes a planned placement location of the identified online ads on the web page;

35. However Bodin teaches:

36. actual placement that includes an actual placement location of the identified online ads on a web page versus planned placement that includes a planned placement location of the identified online ads on the web page **(shown in Figure 21, the analysis of planned placement of sequence compared to the actual sequence presented).**

37. Therefore it would have been obvious to one of ordinary skill in the art before the effective filing date of the invention to modify the analysis of Netzer in view of Calabria in view of Zhou to include actual placement that includes an actual placement location of the identified online ads on a web page versus planned placement that includes a planned placement location of the identified online ads on the web page, as taught in Bodin, in order to target content to an audience (paragraph 004).

38. Regarding claim 22, Netzer in view of Calabria in view of Zhu in view of Parekh in further view of Bodin teaches the limitations set forth above.

39. Netzer further discloses:

40. further comprising machine readable instructions that when executed by the processor further cause the processor to: utilize the information that describes the online ads for the client **(see ad server signatures in Figure 8)** to distinguish the online ads for the client or the client's competitors from other online ads **("Competitive Collision: this incident occurs when the advertisement is shown with another advertisement of a competing advertiser on the same page. The competitor**

definition can come from the campaign definition or from a list of competitors for different advertisers", Paragraph 0111).

41. Regarding claim 23, Netzer in view of Calabria in view of Zhu in view of Parekh in further view of Bodin teaches the limitations set forth above.

42. Netzer further discloses:

43. further comprising machine readable instructions that when executed by the processor further cause the processor to: determine, based on the information, whether the ad beacons identify the online ads for the client by comparing a unique client ID to an ad beacon URL **("Each site need to be identified by the ad server. This is commonly achieved by sending a parameter (id) to the ad server. The mapping process proposed by the present invention associates between each id and the viewed site. For example, if a particular site "A" is identified as site id 13 by ad server 1 and as site id 41 by ad server 2, etc, each time the tracking pixel identifies site id 13 that is served by ad server 1 or site id 41 that is served by ad server 2, it is known that site "A" has been viewed.", Paragraph 0106 and see "ad server signatures").**

44. Regarding claim 25, Netzer in view of Calabria in view of Zhu in view of Parekh in further view of Bodin teaches the limitations set forth above.

45. Netzer further discloses:

46. wherein the machine readable instructions to scan the plurality of web sites, further comprise machine readable instructions that when executed by the processor further cause the processor to: scan the plurality of web sites based on a region-based

scan for online ad information **(US location web crawlers and Outside the US location in Figure 1)**

47. Regarding claim 26, Netzer in view of Calabria in view of Zhu in view of Parekh in further view of Bodin teaches the limitations set forth above.

48. While Netzer teaches the analysis of website and webpages using crawlers to collect data, Netzer does not expressly disclose:

- further comprising machine readable instructions that when executed by the processor further cause the processor to: generate a competitor analysis report based on the competitor analysis, wherein the competitor analysis report is generated by analyzing metrics for competitors to identify which competitors are advertising and where and how often the competitors are advertising.

49. However Calabria teaches:

50. further comprising machine readable instructions that when executed by the processor further cause the processor to: generate a competitor analysis report based on the competitor analysis, wherein the competitor analysis report is generated by analyzing metrics for competitors to identify which competitors are advertising and where and how often the competitors are advertising. **(Paragraphs 0055-0056; 0113; 0120)**;

51. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine this feature of Calabria with the teaching of Netzer as it is simply a combination of known parts with predictable results, simply using Calabria's already-known data in a the analysis of Netzer's advertisements; each part works

independently of the other, and each works in combination identically to how it works when not combined, with no new and unexpected result inherent or disclosed.

52. Regarding claim 27, Netzer in view of Calabria in view of Zhu in view of Parekh in further view of Bodin teaches the limitations set forth above.

53. Netzer further discloses:

54. further comprising machine readable instructions that when executed by the processor further cause the processor to: determine whether an identified ad beacon of the identified ad beacons includes a click thru URL **("Track down its landing page (click through URL). This tracking may include several servers that the click goes through until it reaches its final destination.", Figure 8 and see 0025).**

55. Regarding claim 29, Netzer in view of Calabria in view of Zhu in view of Parekh in further view of Bodin teaches the limitations set forth above, Netzer in view of Calabria in view of Zhu does not expressly disclose:

- further comprising machine readable instructions that when executed by the processor further cause the processor to: determine a location on the at least one of the plurality of web sites to increase or decrease the number of the client's ads.

56. However Parekh teaches:

57. further comprising machine readable instructions that when executed by the processor further cause the processor to: determine a location on the at least one of the plurality of web sites to increase or decrease the number of the client's ads **("For example, some embodiments decrease the total number of advertisements shown on the page if the user has a low probability of clicking on sponsored listings. The advertisement- depth for the entire page can be reduced so that the least**

valuable advertisements, typically the lowest links on the less visible adverting locations, are not displayed on the search results page. The number of advertisements shown (or filtered) can be determined by using thresholds on the personalized probability of clicking on the advertisements. Alternately, if a user has a high probability of clicking on advertisements, the number of advertisements shown on the page can be increased, provided that there is sufficient advertising inventory and sufficient value, e.g. expected revenue", Paragraph 0054).

58. Therefore it would have been obvious to one of ordinary skill in the art before the effective filing date of the invention to modify the analysis of Netzer in view of Calabria in further view of Zhu to include further comprising machine readable instructions that when executed by the processor further cause the processor to: determine a location on the at least one of the plurality of web sites to increase or decrease the number of the client's ads, as taught in Parekh, in order to place the highest valued advertisements at the lowest page depth for the highest ROI.

59. **Claims 30-32 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Netzer (U.S. Pub. No. 20110125587) in view of Demir (U.S Pub. No. 20090132340).**

60. Regarding claim 30, Netzer teaches:

61. A computer implemented method comprising:

62. Scanning, by a plurality of scan servers located at different geographical locations **(Figure1 see US location vs Outside US location)**, a plurality of web sites **(mapping crawlers)**; detecting web pages based on the scanning of the plurality of web

sites; parsing the web pages of the plurality of web sites **(visual crawlers)(Paragraphs 0040-0041, and 0048)**;

63. identifying ad beacons from the parsed web pages; determining, based on an analysis of information that describes online ads for a client **(ad server's signature)**, whether the ad beacons identify the online ads for the client **("1. Each ad server has a unique signature of the ad tag it uses for the different ads it serves, as well as a set of parameters that are included in the signature and that vary from ad serving system to another. 2. Identify all of the tags on the page that correspond to an ad server's signature (can be achieved on mass scale through a crawler as described above but through other methods as well). 3. Parse the tag and extract information such as the URL of the creative file, the landing page, the type of ad, the size of the ad, the advertising category and more.", Paragraph 0105 and 0077)**;

64. determining, by a processor, metrics for the identified online ads for the client **("Incidents generation is done by analyzing the data retrieved from the crawlers (the delivery data) and the tracking pixel, and comparing it to the terms and conditions.", Paragraph 0108)**;

65. determining key performance indicators (KPIs) which identify effectiveness of ads relative to content and web sites; and **("Scoring is a way for a campaign manager/advertiser/site to know how well the advertisements are doing on the defined in the insertion order comparing the real results as opposed to the definitions in the campaign. The scoring is a number between O and 100. 0 is the lowest score possible and 100 is the best score possible", Paragraph 0118)**, **("One simple possible scoring algorithm is as follows: Divide of the amount of**

incidents that occurred by the total number of advertisements found. A total incident scoring is one score for all of the incident types, giving a total score for the incidents (as described above).", Paragraph 0130)

66. While Netzer teaches the analysis of website and webpages using crawlers to collect data, Netzer does not expressly disclose:

- determining, based on the KPIs and an analysis of locations of the web pages in their web site hierarchies for websites of the plurality of web sites that include at least three web pages, and the web pages according to their locations in their web site hierarchies, a location on the at least one of the plurality of web sites to increase or decrease, for at least one of the web pages, a number of the identified online ads for the client by
- modifying, by at least one scan server of the plurality of scan servers, the number of the identified online ads to modify the at least one of the web pages to increase or decrease the number of the identified online ads.

67. However Demir teaches:

68. determining, based on the KPIs **(track click activity of advertisements 1004)** and an analysis of locations of the web pages in their web site hierarchies for websites of the plurality of web sites that include at least three web pages, and the web pages according to their locations in their web site hierarchies, **(within a set of hierarchical search results pages 1004)** a location on the at least one of the plurality of web sites to increase or decrease, for at least one of the web pages, a number of the identified online ads for the client by modifying, by at least one scan server of the plurality of scan servers, the number of the identified online ads to modify the at least one of the web

pages to increase or decrease the number of the identified online ads. **("Calculate Optimum Number of Advertisements (d*) to Display on a Particular Search Results Page Based on Probability of Total Click Volume (V Being Greater than That of Any of the Advertisers Is Less Than or Equal to A Predetermined Business Parameter", 1012 in Figure 10).**

69. Therefore it would have been obvious to one of ordinary skill in the art before the effective filing date of the invention to modify the analysis of Netzer to include determining, based on the KPIs and an analysis of locations of the web pages in their web site hierarchies for websites of the plurality of web sites that include at least three web pages, and the web pages according to their locations in their web site hierarchies, a location on the at least one of the plurality of web sites to increase or decrease a number of the identified online ads for the client and modifying, by at least one scan server of the plurality of scan servers, the number of the identified online ads to modify the at least one of the web pages to increase or decrease the number of the identified online ads, as taught in Demir, in order to place the highest valued advertisements at the lowest page depth for the highest ROI.

70. Regarding claim 31, Netzer in view of Demir teaches the limitations set forth above.

71. Netzer further discloses:

72. wherein the information comprises information unique to the client or the client's competitors, further comprising: analyzing the information to distinguish the online ads of the client or the client's competitors **(see ad server signatures in Figure 8)** from other online ads **("Competitive Collision: this incident occurs when the**

advertisement is shown with another advertisement of a competing advertiser on the same page. The competitor definition can come from the campaign definition or from a list of competitors for different advertisers", Paragraph 0111).

73. Regarding claim 32, Netzer in view of Demir teaches the limitations set forth above.

74. Netzer further discloses:

75. further comprising: determining, based on the information, whether the ad beacons identify the online ads for the client by comparing a unique client ID to an ad beacon URL **("Each site need to be identified by the ad server. This is commonly achieved by sending a parameter (id) to the ad server. The mapping process proposed by the present invention associates between each id and the viewed site. For example, if a particular site "A" is identified as site id 13 by ad server 1 and as site id 41 by ad server 2, etc, each time the tracking pixel identifies site id 13 that is served by ad server 1 or site id 41 that is served by ad server 2, it is known that site "A" has been viewed.", Paragraph 0106 and see "ad server signatures").**

76. **Claims 34-39 and 41 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Netzer (U.S. Pub. No. 20110125587) in view of Parekh (U.S Pub. No. 20090240677) in further view of Bodin (U.S. Pub. No. 20060224965).**

77. Regarding claim 34, Netzer teaches:

78. A non-transitory computer readable medium having stored thereon machine readable instructions, the machine readable instructions, when executed, cause a processor to **(Paragraph 0143)**:

79. retrieve information describing online ads from data storage **(Paragraph 0032)**;

80. scan, by a plurality of scan servers located at different geographical locations, **(Figure1 see US location vs Outside US location)** web sites hosted on web servers based on a region-based **(US location web crawlers)** scan for the online ads using the information;

81. identify the online ads based on the scanning of the web sites;

82. determine metrics for the identified online ads **("1. Each ad server has a unique signature of the ad tag it uses for the different ads it serves, as well as a set of parameters that are included in the signature and that vary from ad serving system to another. 2. Identify all of the tags on the page that correspond to an ad server's signature (can be achieved on mass scale through a crawler as described above but through other methods as well). 3. Parse the tag and extract information such as the URL of the creative file, the landing page, the type of ad, the size of the ad, the advertising category and more.", Paragraph 0105 and 0077,)**;

83. determine key performance indicators (KPIs) from the metrics, wherein the KPIs are configured to determine effectiveness of ads relative to content and web sites **("Incidents generation is done by analyzing the data retrieved from the crawlers (the delivery data) and the tracking pixel, and comparing it to the terms and conditions.", Paragraph 0108 "Scoring is a way for a campaign manager/advertiser/site to know how well the advertisements are doing on the defined in the insertion order comparing the real results as opposed to the**

definitions in the campaign. The scoring is a number between O and 100. 0 is the lowest score possible and 100 is the best score possible", Paragraph 0118),);

84. While Netzer teaches the analysis of website and webpages using crawlers to collect data, Netzer does not expressly disclose:

- perform a cost analysis for the identified online ads, by analyzing, from the KPIs, actual placement of the identified online ads versus planned placement of the identified online ads; and
- modify, based on the KPIs, at least one of the web sites to increase or decrease a number of the identified online ads by
- modifying, by at least one scan server of the plurality of scan servers, the number of the identified online ads to modify at least one web page to increase or decrease the number of the identified online ads.

85. However Parekh teaches:

86. modify, based on the KPIs, at least one of the web sites to increase or decrease a number of the identified online ads by **("Preferably personalization operations focus on the North advertising region, which is often considered the most valuable advertising area on the SRP. For example, some embodiments focusing on the North region maintain a number of ads on the SRP while decreasing the number of ads shown in the North region, while some increase the numberof ads shown in the North region. Embodiments increasing the number of ads shown on the page might similarly increase or decrease the number of ads shown in the North region. Further embodiments decreasing the number of ads shown on the page might also increase or decrease the number of ads shown in the North**

region. Of course, personalization operations focusing on other regions are also contemplated.", Paragraph 0035).

87. modifying, by at least one scan server of the plurality of scan servers, the number of the identified online ads to modify at least one web page to increase or decrease the number of the identified online ads. **("Preferably personalization operations focus on the North advertising region, which is often considered the most valuable advertising area on the SRP. For example, some embodiments focusing on the North region maintain a number of ads on the SRP while decreasing the number of ads shown in the North region, while some increase the number of ads shown in the North region. Embodiments increasing the number of ads shown on the page might similarly increase or decrease the number of ads shown in the North region. Further embodiments decreasing the number of ads shown on the page might also increase or decrease the number of ads shown in the North region. Of course, personalization operations focusing on other regions are also contemplated.", Paragraph 0035 and "CONTROL ("For example, some embodiments decrease the total number of advertisements shown on the page if the user has a low probability of clicking on sponsored listings. The advertisement- depth for the entire page can be reduced so that the least valuable advertisements, typically the lowest links on the less visible adverting locations, are not displayed on the search results page. The number of advertisements shown (or filtered) can be determined by using thresholds on the personalized probability of clicking on the advertisements. Alternately, if a user has a high probability of clicking on advertisements, the number of advertisements shown**

on the page can be increased, provided that there is sufficient advertising inventory and sufficient value, e.g. expected revenue", Paragraph 0054).

88. Therefore it would have been obvious to one of ordinary skill in the art before the effective filing date of the invention to modify the analysis of Netzer to include modify, based on the KPIs, at least one of the web sites to increase or decrease a number of the identified online ads, modifying, by at least one scan server of the plurality of scan servers, the number of the identified online ads to modify at least one web page to increase or decrease the number of the identified online ads, as taught in Parekh, in order to place the highest valued advertisements at the lowest page depth for the highest ROI.

89. While Netzer teaches the determination of the number of incidents (occurrences) of content or advertisements and Parkeh teaches the modification webpage based on a set of rules, but the combination does not expressly disclose:

- perform a cost analysis for the identified online ads, by analyzing, from the KPIs, actual placement of the identified online ads versus planned placement of the identified online ads; and

90. However Bodin teaches:

91. perform a cost analysis for the identified online ads, by analyzing, from the KPIs, actual placement of the identified online ads versus planned placement of the identified online ads; and **(shown in Figure 21, the analysis of planned placement of sequence compared to the actual sequence presented).**

92. Therefore it would have been obvious to one of ordinary skill in the art before the effective filing date of the invention to modify the analysis of Netzer to include perform a

cost analysis for the identified online ads, by analyzing, from the KPIs, actual placement of the identified online ads versus planned placement of the identified online ads; and, as taught in Bodin, in order to target content to an audience (paragraph 004).

93. Regarding claim 35, Netzer in view of Parekh in further view of Bodin teaches the limitations set forth above.

94. Netzer further discloses:

95. wherein the machine readable instructions to retrieve information from data storage further comprise machine readable instructions that when executed further cause the processor to: retrieve, from ad beacons for online ads posted on the web sites **(Check if its html/JavaScript tag has certain signatures that define the media as an Advertisement. Those signatures may be derived from the ad servers" Figure 8)** information that describes the online ads for at least one of a client and one or more of the client's competitors **("Each site need to be identified by the ad server. This is commonly achieved by sending a parameter (id) to the ad server. The mapping process proposed by the present invention associates between each id and the viewed site. For example, if a particular site "A" is identified as site id 13 by ad server 1 and as site id 41 by ad server 2, etc, each time the tracking pixel identifies site id 13 that is served by ad server 1 or site id 41 that is served by ad server 2, it is known that site "A" has been viewed.", Paragraph 0106 and see "ad server signatures", Paragraph 0106; "Competitive Collision: this incident occurs when the advertisement is shown with another advertisement of a competing advertiser on the same page. The competitor definition can come from the**

campaign definition or from a list of competitors for different advertisers",

Paragraph 0111 and see ad server signature in Figure 8)

96. Regarding claim 36, Netzer in view of Parekh in further view of Bodin teaches the limitations set forth above.

97. Netzer further discloses:

98. wherein the machine readable instructions to scan web sites hosted on web servers based on the region-based scan for the online ads using the information to identify the online ads further comprise machine readable instructions that when executed further cause the processor to:

99. parse web pages of the web sites **(mapping and visual crawlers in Figure 5)**;

100. identify ad beacons based on the parsing of the web pages of the web sites; and **("Track down its landing page (click through URL). This tracking may include several servers that the click goes through until it reaches its final destination; Check if its html/JavaScript tag has certain signatures that define the media as an Advertisement. Those signatures may be derived from the ad servers in Figure 8)**

101. determine whether any identified ad beacons include information that describes the online ads for at least one of a client and one or more of the client's competitors **Check if its html/JavaScript tag has certain signatures that define the media as an Advertisement. Those signatures may be derived from the ad servers in Figure 8; "Competitive Collision: this incident occurs when the advertisement is shown with another advertisement of a competing advertiser on the same page. The competitor definition can come from the campaign definition or from a list of**

competitors for different advertisers", Paragraph 0111 and see ad server signature in Figure 8)

102. Regarding claim 37, Netzer in view of Parekh in further view of Bodin teaches the limitations set forth above.

103. Netzer further discloses:

104. wherein the machine readable instructions, when executed, further cause the processor to: categorize the metrics and the KPIs in one or more categories comprising coverage, targeting, delivery quality **("Scoring is a way for a campaign manager/advertiser/site to know how well the advertisements are doing on the defined in the insertion order comparing the real results as opposed to the definitions in the campaign", Paragraph 0118)**, and cost.

105. Regarding claim 38, Netzer in view of Parekh in further view of Bodin teaches the limitations set forth above.

106. Netzer further discloses:

107. wherein the machine readable instructions, when executed, further cause the processor to:

108. determine delivery quality of the identified online ads from a set of the metrics by analyzing, from the set of the metrics **("Scoring is a way for a campaign manager/advertiser/site to know how well the advertisements are doing on the defined in the insertion order comparing the real results as opposed to the definitions in the campaign. The scoring is a number between 0 and 100. 0 is the lowest score possible and 100 is the best score possible", Paragraph 0118)**, frequency of an occurrence of content in the identified online ads based on scan

frequency; and **("One simple possible scoring algorithm is as follows: Divide of the amount of incidents that occurred by the total number of advertisements found. A total incident scoring is one score for all of the incident types, giving a total score for the incidents (as described above).", Paragraph 0130)**

109. Regarding claim 39, Netzer in view of Parekh in further view of Bodin teaches the limitations set forth above.

110. While Netzer teaches the analysis of website and webpages using crawlers to collect data, Netzer does not expressly disclose:

- wherein the machine readable instructions, when executed, further cause the processor to: determine a cost analysis for the identified online ads from the KPIs, by analyzing, from the KPIs, cost per click, cost per page and page location, and depth versus breadth scan.

111. However Parkeh teaches:

112. wherein the machine readable instructions, when executed, further cause the processor to: determine a cost analysis **(expected revenue)** for the identified online ads from the KPIs, by analyzing, from the KPIs, cost per click **(CTR)**, cost per page and page location **(ad cost)**, and depth versus breadth scan **(advertisement depth)** **(Paragraphs 0048 and 0054)**.

113. Therefore it would have been obvious to one of ordinary skill in the art before the effective filing date of the invention to modify the analysis of Netzer to include wherein the machine readable instructions, when executed, further cause the processor to: determine a cost analysis for the identified online ads from the KPIs, by analyzing, from the KPIs, cost per click, cost per page and page location, and depth versus breadth

scan, as taught in Parekh, in order to place the highest valued advertisements at the lowest page depth for the highest ROI.

114. Regarding claim 41, Netzer in view of Parekh in further view of Bodin teaches the limitations set forth above.

115. While Netzer teaches the analysis of website and webpages using crawlers to collect data, Netzer does not expressly disclose:

- wherein the machine readable instructions to perform the cost analysis for the identified online ads, by analyzing, from the KPIs, actual placement of the identified online ads versus planned placement of the identified online ads, when executed, further cause the processor to: perform the cost analysis for the identified online ads, by analyzing, from the KPIs, the actual placement that includes an actual placement location of the identified online ads on a web page versus the planned placement that includes a planned placement location of the identified online ads on the web page

116. However Parkeh teaches:

117. wherein the machine readable instructions to perform the cost analysis for the identified online ads, by analyzing, from the KPIs, actual placement of the identified online ads versus planned placement of the identified online ads, when executed, further cause the processor to: perform the cost analysis for the identified online ads, by **(See example set forh in paragraphs 0042-0043)**.

118. Therefore it would have been obvious to one of ordinary skill in the art before the effective filing date of the invention to modify the analysis of Netzer to include wherein the machine readable instructions to perform the cost analysis for the identified online ads, by analyzing, from the KPIs, actual placement of the identified online ads versus

planned placement of the identified online ads, when executed, further cause the processor to: perform the cost analysis for the identified online ads, by analyzing, from the KPIs, the actual placement that includes an actual placement location of the identified online ads on a web page versus the planned placement that includes a planned placement location of the identified online ads on the web page, as taught in Parekh, in order to place the highest valued advertisements at the lowest page depth for the highest ROI.

119. While Netzer teaches the determination of the number of incidents (occurrences) of content and Parkeh teaches the modification webpage based on a set of rules, but the combination does not expressly disclose:

- analyzing, from the KPIs, the actual placement that includes an actual placement location of the identified online ads on a web page versus the planned placement that includes a planned placement location of the identified online ads on the web page

120. However Bodin teaches:

121. analyzing, from the KPIs, the actual placement that includes an actual placement location of the identified online ads on a web page versus the planned placement that includes a planned placement location of the identified online ads on the web page **(shown in Figure 21, the analysis of planned placement of sequence compared to the actual sequence presented).**

122. Therefore it would have been obvious to one of ordinary skill in the art before the effective filing date of the invention to modify the analysis of Netzer in view of Parkeh to include analyzing, from the KPIs, the actual placement that includes an actual placement location of the identified online ads on a web page versus the planned

placement that includes a planned placement location of the identified online ads on the web page, as taught in Bodin, in order to target content to an audience (paragraph 004).

123. **Claims 24 and 28 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Netzer (U.S. Pub. No. 20110125587) in view of Calabria (U.S. Pub. No. 20050137939) in view of Zhu (U.S. Pat. No. 7308643) in view of Parkeh (U.S. Pub. No. 20090240677) in view of Bodin (U.S. Pub. No. 20060224965) in further view of Pisaris-Henderson et al. (U.S. Publication No. 2004/0133471).**

124. Regarding claim 24, Netzer in view of Calabria in view of Zhu in view of Parekh in further view of Bodin teaches the limitations set forth above.

125. While Netzer teaches the analysis of website and webpages using crawlers to collect data, Netzer in view of Calabria in view of Zhu in view of Parekh in further view of Bodin does not expressly disclose:

- further comprising machine readable instructions that when executed by the processor further cause the processor to: generate a display of attributes for the identified online ads for the client and for competitor ads, the metrics for the identified online ads for the client and for the competitors ads, the KPIs; and implement, in the generated display, dynamic searching of advertising statistics, and selected KPIs.

126. However Pisaris-Henderson teaches:

127. further comprising machine readable instructions that when executed by the processor further cause the processor to: generate a display of attributes for the identified online ads for the client and for competitor ads, the metrics for the identified online ads for the client and for the competitors ads, and the KPIs; and implement, in

the generated display, dynamic searching of advertising statistics, and selected KPIs.

[0019; 0045 and see Figures 12 and 13]

128. The content of information which is merely transmitted or displayed and then not further processed, such as all of the information provided in the recited display, consists entirely of nonfunctional printed matter which is considered but given no patentable weight. The phrase "dynamic searching" is considered but given no patentable weight over "searching"; any search performed by a computer based on variable input is dynamic.

129. Therefore it would have been obvious to one of ordinary skill in the art before the effective filing date of the invention to modify the analysis of Netzer in view of Calabria in view of Zhu in view of Parekh in further view of Bodin to include further comprising machine readable instructions that when executed by the processor further cause the processor to: generate a display of attributes for the identified online ads for the client and for competitor ads, the metrics for the identified online ads for the client and for the competitors ads, and the KPIs; and implement, in the generated display, dynamic searching of advertising statistics, and selected KPIs, as taught in Pisaris-Henderson, in order to optimize the placement of advertisements based on keyword data.

130. Regarding claim 28, Netzer in view of Calabria in view of Zhu in view of Parekh in further view of Bodin teaches the limitations set forth above.

131. While Netzer teaches the analysis of website and webpages using crawlers to collect data, Netzer in view of Calabria in view of Zhu in view of Parekh in further view of Bodin does not expressly disclose:

- further comprising machine readable instructions that when executed by the processor further cause the processor to: follow the click thru URL until a URL is found that does not match an ad beacon or a click thru URL; and store the metrics for each click thru URL or ad beacon identified when following the click thru URL.

132. However Pisaris-Henderson teaches:

133. further comprising machine readable instructions that when executed by the processor further cause the processor to: follow the click thru URL until a URL is found that does not match an ad beacon or a click thru URL; and store the metrics for each click thru URL or ad beacon identified when following the click thru URL **(sorting the results reads on having finished the search; analyzing the data reads on its having been stored; the rating order reads on the recited metric", Paragraph 0044)**.

134. Therefore it would have been obvious to one of ordinary skill in the art before the effective filing date of the invention to modify the analysis of Netzer in view of Calabria in view of Zhu in view of Parekh in further view of Bodin to include further comprising machine readable instructions that when executed by the processor further cause the processor to: follow the click thru URL until a URL is found that does not match an ad beacon or a click thru URL; and store the metrics for each click thru URL or ad beacon identified when following the click thru URL, as taught in Pisaris-Henderson, in order to optimize the placement of advertisements based on keyword data.

135. **Claim 33 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Netzer (U.S. Pub. No. 20110125587) in view of Demir (U.S Pub. No. 20090132340) in further view of Benson (U.S. Pub. No. 20070239532).**

136. Regarding claim 33, Netzer in view of Demir teaches the limitations set forth above, but does not expressly disclose:

- further comprising: generating reports including the KPIs, wherein the reports include a competitor analysis report which is generated by analyzing the metrics for the client's competitors to identify which competitors are advertising and where and how often the competitors are advertising.

137. However Benson teaches:

138. further comprising: generating reports including the KPIs, wherein the reports include a competitor analysis report which is generated by analyzing the metrics for the client's competitors to identify which competitors are advertising and where and how often the competitors are advertising **("By monitoring shareof-document, share-of-site, and/or share-of-market information for a group of advertisers and/or advertising networks over time, new advertising competitors may be readily identified, decreases/increases in share-of-site for each advertiser or advertising network may be determined, etc. This information may provide advertisers and/or advertising networks with a marketing advantage over competitors that do not have this type of information.", Paragraph 0018 and 0043).**

139. Therefore it would have been obvious to one of ordinary skill in the art before the effective filing date of the invention to modify the analysis of Netzer in view of Demir to include further comprising: generating reports including the KPIs, wherein the reports include a competitor analysis report which is generated by analyzing the metrics for the client's competitors to identify which competitors are advertising and where and how

often the competitors are advertising, as taught in Benson, in order to better compete with other advertisers.

Response to Arguments

140. Applicant's arguments filed 5/1/2020 have been fully considered but they are not persuasive for the reasons set forth below.

141. Applicant's Remarks (pages 14-15): Rejection under 35 USC 101

The Examiner has reviewed and considered the claim amendments and the remarks. As stated in the rejection above, the Examiner does not find support for the modification of the webpage itself. Therefore the Examiner does not find the remarks directed to this limitation and the claim amendment to be persuasive to overcome the rejection under 35 USC 101.

142. Applicant's Remarks (pages 15-23): Rejection under 35 USC 103

The Examiner has updated the rejection to now rely on Bodin for teaching the analysis of an actual placement versus a planned placement of content. As Parkeh is no longer relied on for teaching these claims, the Examiner finds the remarks moot.

The Examiner updated the rejection of claim 30 to now rely on Demir which teaches increasing or decreasing the number of advertisements on a particular search results page within a set of pages based on tracked activity related to the advertisements.

For these reasons the Examiner maintains the rejection under 35 USC 103.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VICTORIA E. FRUNZI whose telephone number is (571)270-1031. The examiner can normally be reached on Monday- Friday 7-4 (EST).

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

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Abdi can be reached on 5712726702. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see https://ppair-my.uspto.gov/pair/PrivatePair. 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 USA OR CANADA) or 571-272-1000.

/VICTORIA E FRUNZI/
Examiner, Art Unit 3688

5/20/2020

REMARKS

Favorable reconsideration of this application is respectfully requested in view of the claim amendments and following remarks.

Interview Summary

Applicants' representative respectfully thanks Examiner Frunzi for the courtesies extended during the August 17, 2020 interview.

Per the discussions during the August 17, 2020 interview, Applicants' representative appreciates Examiner Frunzi's confirmation that the 35 USC § 112(a) and 35 USC § 101 rejections of claims 21-39 and 41 will be withdrawn based on the support for features such as "modifying, by at least one scan server of the plurality of scan servers, the number of the identified online ads to modify the at least one of the web pages to increase or decrease the number of the identified online ads" presented in paragraphs [0005], [0016], [0017], and [0019] of the specification.

Further, with respect to the 35 USC § 103 rejection, Applicants' representative appreciates Examiner Frunzi's confirmation that independent claims 21 and 30 as amended to recite "perform a cost analysis for the identified online ads, by analyzing, from the KPIs, actual placement that includes an actual vertical and horizontal placement location of the identified online ads on a web page and relative to the web page, versus planned placement that includes a planned vertical and horizontal placement location of the identified online ads on the web page and relative to the web page" appear to overcome the 35 USC § 103 rejection, subject to further search and consideration. Further, Applicants' representative appreciates Examiner Frunzi's confirmation that the features

of "modify, based on the determined delivery quality of the identified online ads and the KPIs, a number of the identified online ads for at least one of the web pages by modifying, by at least one scan server of the plurality of scan servers, the number of the identified online ads to modify the at least one of the web pages to increase or decrease the number of the identified online ads" as recited in claim 21, and similarly recited in claims 30 and 34 do not appear to be taught or suggested by the cited art. For example, in a similar manner as claim 21, claim 30 recites "modifying, by at least one scan server of the plurality of scan servers, the number of the identified online ads to modify the at least one of the web pages to increase or decrease the number of the identified online ads", and claim 34 recites "modify, based on the KPIs, at least one of the web sites to increase or decrease a number of the identified online ads by modifying, by at least one scan server of the plurality of scan servers, the number of the identified online ads to modify at least one web page to increase or decrease the number of the identified online ads".

In view of the remarks presented herein, Applicants respectfully request withdrawal of the outstanding rejections, and allowance of this case.

Status of Claims

Claims 21 and 30 are amended. Support for the amendments to claims 21 and 30 is provided, for example, in Figures 1 and 2, and paragraph [0018] of the specification.

Claims 1-20 and 40 were previously canceled without prejudice or disclaimer of the subject matter contained therein.

Claims 21-39 and 41 are pending in the application of which claims 21, 30, and 34 are independent.

Claims 21-39 and 41 are rejected.

No new matter has been introduced by way of the amendments above. Entry thereof is therefore respectfully requested.

Summary of the Office Action

Claims 21-39 and 41 are rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement.

Claims 21-39 and 41 are rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter.

Claims 21-23, 25-27, and 29 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent Application Publication No. 2011/0125587 to Netzer (hereinafter "Netzer") in view of U.S. Patent Application Publication No. 2005/0137939 to Calabria (hereinafter "Calabria"), U.S. Patent Ndemio. 7,308,643 to Zhu (hereinafter "Zhu"), U.S. Patent Application Publication No. 2009/0240677 to Parkeh (hereinafter "Parekh"), and further in view of U.S. Patent Application Publication No. 2006/0224965 to Bodin (hereinafter "Bodin").

Claims 30-32 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Netzer in view of U.S. Patent Application Publication No. 2009/0132340 to Demir (hereinafter "Demir").

Claims 34-39 and 41 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Netzer in view of Parekh and Bodin.

Claims 24 and 28 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Netzer in view of Calabria, Zhu, Parekh, Bodin, and further in view of U.S. Patent Application Publication No. 2004/0133471 to Pisaris-Henderson, et al. (hereinafter "Pisaris-Henderson").

Claim 33 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Netzer in view of Demir and further in view of U.S. Patent Application Publication No. 2007/0239532 to Benson (hereinafter "Benson").

The rejections above are respectfully traversed for at least the reasons set forth below.

Claim Rejection Under 35 U.S.C. § 112, 1st Paragraph

Claims 21-39 and 41 are rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement.

Specifically, the Office Action indicates that "Claims 21, 30, and 34 recite "modify, based on the determined delivery quality of the identified online ads and the KPIs, a number of the identified online ads for at least one of the web pages by modifying, by at least one scan server of the plurality of scan servers, the number of the identified online ads to modify the at least one of the web pages to increase or decrease the number of the identified online ads", however the Examiner does not find support for these limitations in the specification. The review of the cited paragraphs in the remarks (5/1/2020) for the alleged support, make no mention of modification or

modifying the website or number of online ads. The cited paragraphs only discuss the evaluation of the KPIs for generating reports."

In this regard, Applicant respectfully directs the Examiner's attention, for example, to paragraphs [0004], [0005], [0016], [0017]-[0019], [0020], [0022], [0024], [0026], [0033], [0035]-[0038], [0040], [0043], [0044], and [0050] of the specification.

For example, paragraph [0005] indicates that "It is difficult to track the web sites to determine whether the web sites are posting their ads, and whether the ads include the proper content and are provided in the proper web page and in the proper location on the web page".

Paragraph [0016] indicates that "ABBA is able to determine metrics for online ads from the scanning. These metrics may also be key performance indicators (KPIs) or can be used to derive KPIs for auditing and competitor analysis. Categories of metrics and KPIs for online ads include but are not limited ad coverage, targeting, delivery quality, and cost. Coverage is associated with locations of a client's online ads and may be compared with a competitor's online ad coverage. Targeting is associated with whether the online ads are posted in locations lucrative to the ad or posted in predetermined locations."

Paragraph [0017] indicates that "The metrics captured by ABBA may be used by a client, such as an ad buyer, to audit information about their ads posted on web sites" and "Examples of these metrics include: when the ad was presented (e.g., date and time); ad image (e.g., the actual image presented in the ad); frequency of the occurrence of an ad image in the scan (e.g., two occurrences in 3 scans) based on scan scheduling; hourly/daily detection of the image; where a page including the ad was presented (e.g., URL and page title); a site level hierarchy identifying

where the page including the ad is located in the web site; ad location in the web page (e.g., function of the tile parameter being set by DOUBLECLICK)."

Paragraph [0019] indicates that "The ad campaign analysis identifies metrics for competitor's ads to determine who is advertising where and how often they are advertising. This information may be compared to the ad information for the client to determine where the client may additionally need to advertise or where the client may have too much advertising coverage."

Thus, as confirmed during the August 17, 2020 interview, the aspects described in paragraphs [0016], [0017], and [0019] clearly include modification of a web page based on information related to "where the client may additionally need to advertise", and "where the client may have too much advertising coverage".

Accordingly, Applicant respectfully requests withdrawal of the 35 U.S.C. § 112, first paragraph, rejection of claims 21-39 and 41.

Claim Rejection Under 35 U.S.C. § 101

Claims 21-39 and 41 are rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter.

With respect to independent claims 21, 30, and 34, the Office Action alleges that under Step 2A:Prong 1, the "claims recite determining key performance metrics of advertisements parsed from a plurality of websites to determine the effectiveness of the advertisements. The limitation falls within "Certain Methods Of Organizing Human Activity"". Further, the Office Action alleges that under Step 2A:Prong 2, "This judicial exception is not integrated into a practical

application because the only additional elements are a processor, a memory storing machine readable instructions executed by the processor and a network interface for scanning a plurality of websites by a plurality of servers located in different locations, detecting web pages, parse web pages, identify ad beacons, determine metrics, perform cost analysis, modify the number of advertisements on a webpage, modify the at least one web page to increase or decrease the number of identified online ads, and communicate with web servers hosting web sites." *Office Action,* pages 3 and 4.

In this regard, claim 21 recites "scan, by a plurality of scan servers located at different geographical locations, a plurality of web sites based on a competitor analysis of a set of competitors of a client". Claim 21 further recites "modifying, by at least one scan server of the plurality of scan servers, the number of the identified online ads to modify the at least one of the web pages to increase or decrease the number of the identified online ads". Support for these amendments, is provided, for example, in paragraphs [0004], [0005], [0016], [0017]-[0019], [0020], [0022], [0024], [0026], [0033], [0035]-[0038], [0040], [0043], [0044], and [0050] of the specification.

For example, paragraph [0005] indicates that "It is difficult to track the web sites to determine whether the web sites are posting their ads, and whether the ads include the proper content and are provided in the proper web page and in the proper location on the web page".

Paragraph [0016] indicates that "ABBA is able to determine metrics for online ads from the scanning. These metrics may also be key performance indicators (KPIs) or can be used to derive KPIs for auditing and competitor analysis. Categories of metrics and KPIs for online ads

include but are not limited ad coverage, targeting, delivery quality, and cost. Coverage is associated with locations of a client's online ads and may be compared with a competitor's online ad coverage. Targeting is associated with whether the online ads are posted in locations lucrative to the ad or posted in predetermined locations."

Paragraph [0017] indicates that "The metrics captured by ABBA may be used by a client, such as an ad buyer, to audit information about their ads posted on web sites" and "Examples of these metrics include: when the ad was presented (e.g., date and time); ad image (e.g., the actual image presented in the ad); frequency of the occurrence of an ad image in the scan (e.g., two occurrences in 3 scans) based on scan scheduling; hourly/daily detection of the image; where a page including the ad was presented (e.g., URL and page title); a site level hierarchy identifying where the page including the ad is located in the web site; ad location in the web page (e.g., function of the tile parameter being set by DOUBLECLICK)."

Paragraph [0019] indicates that "The ad campaign analysis identifies metrics for competitor's ads to determine who is advertising where and how often they are advertising. This information may be compared to the ad information for the client to determine where the client may additionally need to advertise or where the client may have too much advertising coverage."

Thus, as confirmed during the August 17, 2020 interview, the aspects described in paragraphs [0005], [0016], [0017], and [0019] clearly include modification of a web page based on information related to "where the client may additionally need to advertise", and "where the client may have too much advertising coverage".

Thus, as confirmed during the August 17, 2020 interview, these features recited in claim 21 clearly integrate any judicial exception into a practical application, namely, scanning, by a plurality of scan servers located at different geographical locations, a plurality of web sites based on a competitor analysis of a set of competitors of a client, and further, modifying, by at least one scan server of the plurality of scan servers, the number of identified online ads to modify at least one of the web pages to increase or decrease the number of the identified online ads.

Claims 30 and 34 recite similar features.

Based on the foregoing, Applicant respectfully requests withdrawal of the 35 U.S.C. § 101 rejection of claims 21-39 and 41.

Claim Rejections Under 35 U.S.C. § 103(a)

The test for determining if a claim is rendered obvious by one or more references for purposes of a rejection under 35 U.S.C. § 103 is set forth in *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007):

> "Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented." Quoting *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966).

As set forth in MPEP 2143.03, to ascertain the differences between the prior art and the claims at issue, "[a]ll claim limitations must be considered" because "all words in a claim must be

considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385. According to the Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in view of *KSR International Co. v. Teleflex Inc.*, Federal Register, Vol. 72, No. 195, 57526, 57529 (October 10, 2007), once the *Graham* factual inquiries are resolved, there must be a determination of whether the claims would have been obvious to one of ordinary skill in the art based on any one of the following proper rationales:

> (A) Combining prior art elements according to known methods to yield predictable results; (B) Simple substitution of one known element for another to obtain predictable results; (C) Use of known technique to improve similar devices (methods, or products) in the same way; (D) Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results; (E) ''Obvious to try''—choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success; (F) Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art; (G) Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention. *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007).

Furthermore, as set forth in *KSR International Co. v. Teleflex Inc.*, quoting from *In re Kahn*, 441 F.3d 977, 988 (CA Fed. 2006), "[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasonings with some rational underpinning to support the legal conclusion of obviousness."

Therefore, if the above-identified criteria and rationales are not met, then the cited reference(s) fails to render the claims obvious and, thus, the claims are distinguishable over the cited reference(s).

- **Claims 21-23, 25-27, and 29**

Claims 21-23, 25-27, and 29 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Netzer in view of Clalabria, Zhu, Parekh, and further in view of Bodin.

- Independent Claim 21

Independent claim 21, as amended, recites:

> A system comprising:
> a processor;
> a memory storing machine readable instructions that when executed by the processor cause the processor to:
> scan, by a plurality of scan servers located at different geographical locations, a plurality of web sites based on a competitor analysis of a set of competitors of a client;
> detect web pages based on the scanning of the plurality of web sites;
> parse the web pages of the plurality of web sites;
> identify ad beacons from the parsed web pages;
> determine, based on an analysis of information that describes online ads for the client and an analysis of the ad beacons, whether the ad beacons identify the online ads for the client;
> determine metrics for the online ads for the client identified by the ad beacons;
> determine delivery quality of the identified online ads from a set of the metrics by analyzing, from the set of the metrics, frequency of an occurrence of specified content in the identified online ads based on a specified scan frequency that corresponds to the specified content;
> determine key performance indicators (KPIs) from the metrics, wherein the KPIs are configured to determine effectiveness of ads relative to content and web sites;
> perform a cost analysis for the identified online ads, by analyzing, from the KPIs, actual placement that includes an actual vertical and horizontal placement location of the identified online ads on a web page and relative to the web page, versus planned placement that includes a planned vertical and horizontal placement location of the identified online ads on the web page and relative to the web page;

modify, based on the determined delivery quality of the identified online ads and the KPIs, a number of the identified online ads for at least one of the web pages by

modifying, by at least one scan server of the plurality of scan servers, the number of the identified online ads to modify the at least one of the web pages to increase or decrease the number of the identified online ads; and

a network interface to communicate with web servers hosting the plurality of web sites operable to include the online ads for the client. (*Emphasis Added*)

- Netzer in view of Clalabria, Zhu, Parekh, and further in view of Bodin does not teach or suggest "perform a cost analysis for the identified online ads, by analyzing, from the KPIs, actual placement that includes an actual vertical and horizontal placement location of the identified online ads on a web page and relative to the web page, versus planned placement that includes a planned vertical and horizontal placement location of the identified online ads on the web page and relative to the web page," as recited in claim 21, as amended.

In setting forth the rejection of the aforementioned emphasized features of independent claim 21, the Office Action cites to Figure 21 of Bodin for allegedly disclosing these features. *Office Action*, page 14.

Referring to Figure 21 and paragraph [0123] of Bodin, Bodin indicates that "In aid of such a comparison, presentation server (102) may be programmed to generate automatically a data structure similar to the one illustrated in FIG. 21. The structure of FIG. 21 contains not only the structural element identifications (956), sequence (960), and durations (958) of the actual presentation, but also the planned sequence (752) and durations (754) from the planned agenda for the presentation."

Paragraph [0124] of Bodin indicates that "Comparing the planned agenda shows that only the first four presented structural elements are identical as planned and presented in sequence and

also similar as planned and presented in duration. The first four presented structural elements were presented in the sequence as planned. The first four presented structural elements were presented with durations within a few tenths of a minute as planned. The planned durations for each were 3.0 minutes and the actual durations for each ranged between 2.5 minutes and 3.5 minutes."

Further, paragraph [0125] of Bodin indicates that "Beginning with the fifth structural element presented, however, the element identified as `P5-S2,` the actual presentation differs substantially from the planned agenda. Because actual presentations may vary so substantially from planned agendas, methods of dynamic differential content delivery that use a planned agenda according to embodiments of the present invention also may advantageously include analyzing a comparison of a planned agenda with recorded identities, durations, and sequence of an actual presentation. In such methods, analyzing the comparison of the planned agenda with the recorded identities, durations, and sequence may be carried out by contrasting the durations and sequence of presented structural elements according to the planned agenda with the durations and sequence as recorded.

Thus, at most, Figure 21 and paragraphs [0123]-[0125] of Bodin appear to describe analysis related to presentation of a planned sequence of structural elements versus an actual sequence of structural elements.

However, Bodin clearly does not teach or suggest any type of analysis related to variations in locations of the structural elements, much less variations in horizontal and vertical locations of the structural elements.

Thus, as confirmed during the August 17, 2020 interview, Bodin fails to teach or suggest "perform a cost analysis for the identified online ads, by analyzing, from the KPIs, actual placement that includes an actual vertical and horizontal placement location of the identified online ads on a web page and relative to the web page, versus planned placement that includes a planned vertical and horizontal placement location of the identified online ads on the web page and relative to the web page", as recited in claim 21, as amended.

- Netzer in view of Clalabria, Zhu, Parekh, and further in view of Bodin does not teach or suggest "modify, based on the determined delivery quality of the identified online ads and the KPIs, a number of the identified online ads for at least one of the web pages by modifying, by at least one scan server of the plurality of scan servers, the number of the identified online ads to modify the at least one of the web pages to increase or decrease the number of the identified online ads," as recited in claim 21, as amended.

In setting forth the rejection of the aforementioned emphasized features of independent claim 21, the Office Action cites to paragraphs [0035] and [0054] of Parekh for allegedly disclosing these features. *Office Action*, pages 12 and 13.

Cited paragraph [0035] of Parekh indicates that "some embodiments focusing on the North region maintain a number of ads on the SRP while decreasing the number of ads shown in the North region, while some increase the number of ads shown in the North region".

Cited paragraph [0054] of Parekh indicates that "some embodiments decrease the total number of advertisements shown on the page if the user has a low probability of clicking on sponsored listings".

Thus, at most, cited paragraphs [0035] and [0054] of Parekh appear to describe increasing or decreasing a number of advertisements on a page.

However, Parekh clearly does not teach or suggest that the advertisements are increased or decreased "based on the determined delivery quality of the identified online ads and the KPIs", as recited in claim 21, as amended.

Therefore, Netzer in view of Clalabria, Zhu, Parekh, and further in view of Bodin does not teach or suggest "modify, based on the determined delivery quality of the identified online ads and the KPIs, a number of the identified online ads for at least one of the web pages by modifying, by at least one scan server of the plurality of scan servers, the number of the identified online ads to modify the at least one of the web pages to increase or decrease the number of the identified online ads," as recited in claim 21, as amended.

For at least the foregoing reasons, the Office Action has failed to establish that claim 21 is *prima facie* obvious over Netzer in view of Clalabria, Zhu, Parekh, and further in view of Bodin as proposed by the Examiner. Therefore, withdrawal of the rejection of claim 21, and allowance of this claim is respectfully requested.

- **Claims 30-32**

Claims 30-32 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Netzer in view of Demir.

- Independent Claim 30

Independent claim 30, as amended, recites:

A computer implemented method comprising:

scanning, by a plurality of scan servers located at different geographical locations, a plurality of web sites;

detecting web pages based on the scanning of the plurality of web sites;

parsing the web pages of the plurality of web sites;

identifying ad beacons from the parsed web pages;

determining, based on an analysis of information that describes online ads for a client, whether the ad beacons identify the online ads for the client;

determining, by a processor, metrics for the identified online ads for the client;

determining key performance indicators (KPIs) which identify effectiveness of ads relative to content and web sites;

performing a cost analysis for the identified online ads, by analyzing, from the KPIs, actual placement that includes an actual vertical and horizontal placement location of the identified online ads on a web page and relative to the web page, versus planned placement that includes a planned vertical and horizontal placement location of the identified online ads on the web page and relative to the web page; and

determining, based on the KPIs and an analysis of locations of the web pages in their web site hierarchies for websites of the plurality of web sites that include at least three web pages, and the web pages according to their locations in their web site hierarchies, a location on the at least one of the plurality of web sites to increase or decrease, for at least one of the web pages, a number of the identified online ads for the client by

modifying, by at least one scan server of the plurality of scan servers, the number of the identified online ads to modify the at least one of the web pages to increase or decrease the number of the identified online ads. (*Emphasis Added*)

Independent claim 30 is allowable for at least the reasons presented above for the allowance of independent claim 21, and for the additional features recited therein.

- **Claims 34-39 and 41**

Claims 34-39 and 41 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Netzer in view of Parekh and Bodin.

- Independent Claim 34

Independent claim 34 recites:

A non-transitory computer readable medium having stored thereon machine readable instructions, the machine readable instructions, when executed, cause a processor to:

retrieve information describing online ads from data storage;

scan, by a plurality of scan servers located at different geographical locations, web sites hosted on web servers based on a region-based scan for the online ads using the information;

identify the online ads based on the scanning of the web sites;

determine metrics for the identified online ads;

determine key performance indicators (KPIs) from the metrics, wherein the KPIs are configured to determine effectiveness of ads relative to content and web sites;

perform a cost analysis for the identified online ads, by analyzing, from the KPIs, actual placement of the identified online ads versus planned placement of the identified online ads; and

modify, based on the KPIs, at least one of the web sites to increase or decrease a number of the identified online ads by

modifying, by at least one scan server of the plurality of scan servers, the number of the identified online ads to modify at least one web page to increase or decrease the number of the identified online ads. (*Emphasis Added*)

Independent claim 34 is allowable for at least the reasons presented above for the allowance of independent claim 21, and for the additional features recited therein.

Conclusion

In light of the foregoing, withdrawal of the rejections of record and allowance of this application are earnestly solicited. Should the Examiner believe that a telephone conference with the undersigned would assist in resolving any issues pertaining to the allowability of the above-identified application, please contact the undersigned at the telephone number listed below. Please grant any required extensions of time and charge any fees due in connection with this request to Deposit Account No. 50-3290.

Respectfully submitted,

Dated: August 24, 2020

By /Adesh Bhargava/
Adesh Bhargava
Registration No. 46,553
(703) 652-3820

MANNAVA & KANG, P.C.
3201 Jermantown Road
Suite 525
Fairfax, VA 22030
(703) 865-5150 (facsimile)

IN THE CLAIMS

Please find below a listing of all of the pending claims. The status of each claim is set forth in parentheses. This listing will replace all prior versions, and listings, of claims in the present application.

1-20 (Canceled)

21. (Currently Amended) A system comprising:

a processor;

a memory storing machine readable instructions that when executed by the processor cause the processor to:

scan, by a plurality of scan servers located at different geographical locations, a plurality of web sites based on a competitor analysis of a set of competitors of a client;

detect web pages based on the scanning of the plurality of web sites;

parse the web pages of the plurality of web sites;

identify ad beacons from the parsed web pages;

determine, based on an analysis of information that describes online ads for the client and an analysis of the ad beacons, whether the ad beacons identify the online ads for the client;

determine metrics for the online ads for the client identified by the ad beacons;

determine delivery quality of the identified online ads from a set of the metrics by analyzing, from the set of the metrics, frequency of an occurrence of specified content in the identified online ads based on a specified scan frequency that corresponds to the specified content;

determine key performance indicators (KPIs) from the metrics, wherein the KPIs are configured to determine effectiveness of ads relative to content and web sites;

perform a cost analysis for the identified online ads, by analyzing, from the KPIs, actual placement that includes an actual vertical and horizontal placement location of the identified online ads on a web page and relative to the web page, versus planned placement that includes a planned vertical and horizontal placement location of the identified online ads on the web page and relative to the web page;

modify, based on the determined delivery quality of the identified online ads and the KPIs, a number of the identified online ads for at least one of the web pages by

modifying, by at least one scan server of the plurality of scan servers, the number of the identified online ads to modify the at least one of the web pages to increase or decrease the number of the identified online ads; and

a network interface to communicate with web servers hosting the plurality of web sites operable to include the online ads for the client.

22. (Previously Presented) The system according to claim 21, further comprising machine readable instructions that when executed by the processor further cause the processor to:

utilize the information that describes the online ads for the client to distinguish the online ads for the client or the client's competitors from other online ads.

23. (Previously Presented) The system according to claim 21, further comprising machine readable instructions that when executed by the processor further cause the processor to:

determine, based on the information, whether the ad beacons identify the online ads for the client by comparing a unique client ID to an ad beacon URL.

24. (Previously Presented) The system according to claim 21, further comprising machine readable instructions that when executed by the processor further cause the processor to:

generate a display of attributes for the identified online ads for the client and for competitor ads, the metrics for the identified online ads for the client and for the competitors ads, and the KPIs; and

implement, in the generated display, dynamic searching of advertising statistics, and selected KPIs.

25. (Previously Presented) The system according to claim 21, wherein the machine readable instructions to scan the plurality of web sites, further comprise machine readable instructions that when executed by the processor further cause the processor to:

scan the plurality of web sites based on a region-based scan for online ad information.

26. (Previously Presented) The system according to claim 21, further comprising machine readable instructions that when executed by the processor further cause the processor to:

generate a competitor analysis report based on the competitor analysis, wherein the competitor analysis report is generated by analyzing metrics for competitors to identify which competitors are advertising and where and how often the competitors are advertising.

27. (Previously Presented) The system according to claim 21, further comprising machine readable instructions that when executed by the processor further cause the processor to:

determine whether an identified ad beacon of the identified ad beacons includes a click thru URL.

28. (Previously Presented) The system according to claim 27, further comprising machine readable instructions that when executed by the processor further cause the processor to:

follow the click thru URL until a URL is found that does not match an ad beacon or a click thru URL; and

store the metrics for each click thru URL or ad beacon identified when following the click thru URL.

29. (Previously Presented) The system according to claim 21, further comprising machine readable instructions that when executed by the processor further cause the processor to:

determine a location on the at least one of the plurality of web sites to increase or decrease the number of the client's ads.

30. (Currently Amended) A computer implemented method comprising:

scanning, by a plurality of scan servers located at different geographical locations, a plurality of web sites;

detecting web pages based on the scanning of the plurality of web sites;

parsing the web pages of the plurality of web sites;

identifying ad beacons from the parsed web pages;

determining, based on an analysis of information that describes online ads for a client, whether the ad beacons identify the online ads for the client;

determining, by a processor, metrics for the identified online ads for the client;

determining key performance indicators (KPIs) which identify effectiveness of ads relative to content and web sites;

performing a cost analysis for the identified online ads, by analyzing, from the KPIs, actual placement that includes an actual vertical and horizontal placement location of the identified online ads on a web page and relative to the web page, versus planned placement that includes a planned vertical and horizontal placement location of the identified online ads on the web page and relative to the web page; and

determining, based on the KPIs and an analysis of locations of the web pages in their web site hierarchies for websites of the plurality of web sites that include at least three web pages, and

the web pages according to their locations in their web site hierarchies, a location on the at least one of the plurality of web sites to increase or decrease, for at least one of the web pages, a number of the identified online ads for the client by

modifying, by at least one scan server of the plurality of scan servers, the number of the identified online ads to modify the at least one of the web pages to increase or decrease the number of the identified online ads.

31. (Previously Presented) The computer implemented method of claim 30, wherein the information comprises information unique to the client or the client's competitors, further comprising:

analyzing the information to distinguish the online ads of the client or the client's competitors from other online ads.

32. (Previously Presented) The computer implemented method of claim 30, further comprising:

determining, based on the information, whether the ad beacons identify the online ads for the client by comparing a unique client ID to an ad beacon URL.

33. (Previously Presented) The computer implemented method of claim 30, further comprising:

generating reports including the KPIs, wherein the reports include a competitor analysis report which is generated by analyzing the metrics for the client's competitors to identify which competitors are advertising and where and how often the competitors are advertising.

34. (Previously Presented) A non-transitory computer readable medium having stored thereon machine readable instructions, the machine readable instructions, when executed, cause a processor to:

retrieve information describing online ads from data storage;

scan, by a plurality of scan servers located at different geographical locations, web sites hosted on web servers based on a region-based scan for the online ads using the information;

identify the online ads based on the scanning of the web sites;

determine metrics for the identified online ads;

determine key performance indicators (KPIs) from the metrics, wherein the KPIs are configured to determine effectiveness of ads relative to content and web sites;

perform a cost analysis for the identified online ads, by analyzing, from the KPIs, actual placement of the identified online ads versus planned placement of the identified online ads; and

modify, based on the KPIs, at least one of the web sites to increase or decrease a number of the identified online ads by

modifying, by at least one scan server of the plurality of scan servers, the number of the identified online ads to modify at least one web page to increase or decrease the number of the identified online ads.

35. (Previously Presented) The non-transitory computer readable medium according to claim 34, wherein the machine readable instructions to retrieve information from data storage further comprise machine readable instructions that when executed further cause the processor to:

retrieve, from ad beacons for online ads posted on the web sites, information that describes the online ads for at least one of a client and one or more of the client's competitors.

36. (Previously Presented) The non-transitory computer readable medium according to claim 34, wherein the machine readable instructions to scan web sites hosted on web servers based on the region-based scan for the online ads using the information to identify the online ads further comprise machine readable instructions that when executed further cause the processor to:

parse web pages of the web sites;

identify ad beacons based on the parsing of the web pages of the web sites; and

determine whether any identified ad beacons include information that describes the online ads for at least one of a client and one or more of the client's competitors.

37. (Previously Presented) The non-transitory computer readable medium according to claim 34, wherein the machine readable instructions, when executed, further cause the processor to:

categorize the metrics and the KPIs in one or more categories comprising coverage, targeting, delivery quality, and cost.

38. (Previously Presented) The non-transitory computer readable medium according to claim 34, wherein the machine readable instructions, when executed, further cause the processor to:

determine delivery quality of the identified online ads from a set of the metrics by analyzing, from the set of the metrics, frequency of an occurrence of content in the identified online ads based on scan frequency.

39. (Previously Presented) The non-transitory computer readable medium according to claim 34, wherein the machine readable instructions, when executed, further cause the processor to:

determine a cost analysis for the identified online ads from the KPIs, by analyzing, from the KPIs, cost per click, cost per page and page location, and depth versus breadth scan.

40. (Cancelled)

41. (Previously Presented) The non-transitory computer readable medium according to claim 34, wherein the machine readable instructions to perform the cost analysis for the identified online ads, by analyzing, from the KPIs, actual placement of the identified online ads versus planned placement of the identified online ads, when executed, further cause the processor to:

perform the cost analysis for the identified online ads, by analyzing, from the KPIs, the actual placement that includes an actual placement location of the identified online ads on a web page versus the planned placement that includes a planned placement location of the identified online ads on the web page.