APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/717,545	12/17/2012	Amit Alon	26295-20622	1710

87851   7590   05/30/2018
Facebook/Fenwick
Silicon Valley Center
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EXAMINER
UBALE, GAUTAM

ART UNIT	PAPER NUMBER
3682	

NOTIFICATION DATE	DELIVERY MODE
05/30/2018	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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Ex parte AMIT ALON and GREGORY JOSEPH BADROS

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Appeal 2016-004545[1]
Application 13/717,545[2]
Technology Center 3600

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Before MICHAEL C. ASTORINO, KENNETH G. SCHOPFER, and ALYSSA A. FINAMORE, *Administrative Patent Judges.*

FINAMORE, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant[3] appeals from the Examiner's decision to reject claims 1–4, 11, 12, and 14–23. We have jurisdiction under § 6(b).

We AFFIRM.

SUBJECT MATTER ON APPEAL

The invention "relates generally to online systems and more particularly to targeting objects to users based on queries in an online system." Spec. ¶ 1. Claims 1, 11, and 18 are the independent claims on appeal. Independent claim 1, reproduced below, is illustrative of the claimed subject matter:

1.   A method comprising:

receiving a request from an advertiser to increase a ranking of a target search result object in a typeahead search user interface, where the typeahead search user interface comprises a plurality of search result objects in which each search result object matches in part a prefix of a search query provided to the typeahead search user interface on an online system;

receiving a search query in the typeahead search user interface from a user of the online system;

determining a plurality of search result objects of the online system based on the search query to present as search results, comprising matching a prefix of the received search query to the plurality of search result objects, where the plurality of search result objects comprises the target search result object of the received request;

ranking, by a processor, the plurality of search result objects based on relevance of the search result objects to the

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[3] We use the term "Appellant" herein to refer to any and all appellants collectively.

requesting user, the ranking comprising increasing the ranking of
the target search result object based on the received request; and
    providing the search result objects for display to the user
in the search user interface based, in part, on the ranking of the
plurality of search result objects.

REFERENCES

The Examiner relies on the following prior art in rejecting the claims
on appeal:

Lobo et al. ("Lobo")	US 2010/0094673 A1	Apr. 15, 2010
Baluja et al. ("Baluja")	US 2011/0112916 A1	May 12, 2011
Hansson et al. ("Hansson")	US 2012/0047135 A1	Feb. 23, 2012
Venkataraman et al. ("Venkataraman")	US 2012/0136847 A1	May 31, 2012

REJECTIONS

The Examiner rejects the claims on appeal as follows:

I.   claims 1–4, 11, 12, and 14–23 under 35 U.S.C. § 101 as non-statutory
       subject matter;[4]

II.   claims 1–4 and 18–21 under 35 U.S.C. § 103(a) as unpatentable over
       Hansson and Venkataraman;

III.   claims 11, 12, and 14–17 under 35 U.S.C. § 103(a) as unpatentable
       over Hansson, Lobo, and Baluja; and

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[4] The Examiner withdraws the rejection of claims 1–4, 11, 12, and 14–23
under 35 U.S.C. § 101 as non-statutory subject matter in the Final Office
Action and enters a new rejection on the same ground in the Answer.
Ans. 10–12. Appellant acknowledges the new ground of rejection.
Reply Br. 5.

IV. claims 22 and 23 under 35 U.S.C. § 103(a) as unpatentable over

Hansson, Venkataraman, and Lobo.

ANALYSIS

*Rejection I: Claims 1–4, 11, 12, and 14–23 under 35 U.S.C. § 101 as
Non-Statutory Subject Matter*

An invention is patent-eligible if it claims a "new and useful process, machine, manufacture, or composition of matter." 35 U.S.C. § 101. The Supreme Court, however, has long interpreted § 101 to include implicit exceptions: "[l]aws of nature, natural phenomena, and abstract ideas" are not patentable. *See, e.g., Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014) (quoting *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2116 (2013)). To "distinguish[] patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts," the Supreme Court, in *Alice*, reiterated the two-step framework previously set forth in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 132 S. Ct. 1289 (2012), which, in the first step, considers whether a claim is directed to a patent-ineligible concept, e.g., an abstract idea, and, if so, considers, in the second step, whether the claim recites an inventive concept—an element or combination of elements sufficient to ensure the claim amounts to significantly more than the abstract idea and transform the nature of the claim into a patent-eligible application. *Alice*, 134 S. Ct. at 2355 (citing *Mayo*, 132 S. Ct. at 1294, 1296–98).

In rejecting the claims under 35 U.S.C. § 101 as non-statutory subject matter, i.e., subject matter judicially excepted from statutory subject matter, the Examiner analyzes the claims using this two-step framework. Ans. 10–

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12. Pursuant to the first step, the Examiner determines the claims are directed to "receiving a request from advertisers to increase a ranking of a target search result for an object resulted from a search query received from a user in the typeahead search interface that is further provided to [the] user with ranked search results," which is similar to other concepts the courts have held to be abstract ideas, and therefore, an abstract idea. *Id.* at 10. Under the second step, the Examiner determines the claims do not recite significantly more than the abstract idea because the recited computer components are generic and serve only to implement the abstract idea. *Id.* at 11. The Examiner further determines the claims do not effect an improvement to another technology or technical field, improve the functioning of the computer itself, or move beyond a general link of the use of the abstract idea to a particular technological environment. *Id.*

Appellant argues claims 1–4, 11, 12, and 14–23 as a group. Reply Br. 5–10. We select independent claim 1 as representative. The remaining claims of the group stand or fall with independent claim 1. 37 C.F.R. § 41.37(c)(1)(iv).

Pursuant to the first step of the patent-eligibility analysis, Appellant argues that the Examiner glosses the claim elements in determining independent claim 1 is directed to an abstract idea, and that it is unclear how the claim limitations are similar to other concepts the courts have held to be abstract ideas. Reply Br. 7. Appellant does not apprise us of error.

Here, independent claim 1 recites: receiving a request from an advertiser to increase a ranking of a target search result object; receiving a search query from a user; determining a plurality of search result objects based on the search query by matching a prefix of the received search query

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to the plurality of search result objects, including the target search request
object; ranking the plurality of search result objects based on relevance,
whereby the ranking includes increasing the ranking of the target search
object; and providing the search result objects for display to the user based
in part on the ranking. As such, independent claim 1 is directed to *receiving
data*, i.e., a request to increase a ranking of a target search request object
from an advertiser and a search query from a user; *comparing data*, i.e.,
determining a plurality of search result objects based on the query and
ranking the search result objects based on the advertiser's request to increase
the ranking of the target search object; and *displaying data*, i.e., providing
the ranked search result objects to the user.

Indeed, the concept of receiving, comparing, and displaying data is
similar to concepts the courts have held to be abstract ideas. For example, as
the Examiner points out, the concept of receiving, comparing, and displaying
data is similar to the abstract idea of collecting and comparing information
in *Classen Immunotherapies, Inc. v. Biogen IDEC*, 659 F.3d 1057, 1067
(Fed. Cir.), *reh'g en banc denied* (2011). Ans. 10. More recently, in
Electric Power Group, LLC v. Alstom S.A., 830 F.3d 1350, 1354
(Fed. Cir. 2016), the Federal Circuit held gathering and analyzing
information of a specified content and then displaying the results, without
more, is an abstract idea. Accordingly, Appellant does not apprise us of
error in the Examiner's determination that independent claim 1 is directed to
the abstract idea of "receiving a request from advertisers to increase a
ranking of a target search result for an object resulted from a search query
received from a user in the typeahead search interface that is further

provided to user with ranked search results," i.e., receiving, comparing, and displaying data of a specified content.

Appellant further asserts independent claim 1 is not directed to an abstract idea because, like the claims in *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014), the claim addresses a technical challenge particular to the Internet, namely modifying the ranking of search result objects in an online system. Reply Br. 8. According to Appellant, the claimed online system-based method exists only in the context of the Internet. *Id.* Appellant's argument is not convincing.

The fact that the claimed invention uses an online system to modify the ranking of search results, in and of itself, does not mean the claimed invention addresses a problem unique to the Internet. To the contrary, modifying the ranking of search result objects does not require an online system or the Internet. For example, a person can modify the ranking of search results. Consequently, unlike the claims in *DDR Holdings*, independent claim 1 does not address a challenge particular to the Internet.

Seeing no error in the Examiner's determination that independent claim 1 is directed to an abstract idea pursuant to the first step of the patent-eligibility analysis, we turn to Appellant's arguments under the second step. Appellant argues the claim includes meaningful limitations that modify the standard ranking of the search result objects. Reply Br. 10. Appellant's argument does not apprise us of error.

"It is true that 'the § 101 patent-eligibility inquiry and, say, the § 102 novelty inquiry might sometimes overlap.' But a claim for a *new* abstract idea is still an abstract idea." *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016) (citation omitted) (quoting *Mayo*,

132 S. Ct. at 1304). The question in the second step of the patent-eligibility analysis is not whether a claim limitation is novel, but rather whether the implementation of the abstract idea involves "more than performance of 'well-understood, routine, [and] conventional activities previously known to the industry.'" *Content Extraction & Transmission LLC v. Wells Fargo Bank, N.A.*, 776 F.3d 1343, 1347–48 (Fed. Cir. 2014) (quoting *Alice*, 134 S. Ct. at 2359).

Here, even if we were to agree with Appellant that the claim recites a unique ranking, Appellant does not explain, and we fail to see, how the computer implementation of the claimed steps, including the ranking step, requires something other than computer functions that are well-understood, routine, and conventional, such as receiving, processing, and displaying data. We also note that the Specification indicates that the computer and network components used to implement the claimed functions are "conventional" and use "standard communications technologies and/or protocols." Spec. ¶¶ 26, 27.

Appellant further asserts that independent claim 1 recites a "processor," a "user-interface," and an "online system," which meaningfully limit the application of the abstract idea. Reply Br. 10. Appellant's argument is not persuasive of error. The recitation of generic computing components is not sufficient to transform the nature of the claim into a patent-eligible application. *See Alice*, 134 S. Ct. at 2358 ("[T]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.").

Appellant also argues that independent claim 1 recites significantly more than the abstract idea because, like the claims in *DDR Holdings*, it is a

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solution necessarily rooted in the technology of online social networking systems and, in general, computer networks. Reply Br. 10. Appellant's reliance on *DDR Holdings* pursuant to the second step of the patent-eligibility analysis is unpersuasive of error for essentially the same reasons it does not apprise us of error under the first step. Namely, the simple recitation of computer components does not mean the claimed invention is necessarily rooted in technology. Moreover, as set forth above, modifying the ranking of search result objects does not require the use of a computer. Consequently, the claimed invention does not recite a solution necessarily rooted in technology. Instead, the claimed invention is simply the generic computer implementation of the abstract idea of receiving, comparing, and displaying data of a specified content, which is insufficient for patent eligibility. *See DDR Holdings*, 773 F.3d at 1256 ("[T]hese claims [of prior cases] in substance were directed to nothing more than the performance of an abstract business practice on the Internet or using a conventional computer. Such claims are not patent-eligible.").

In view of the foregoing, Appellant does not apprise us of error in the Examiner's determination that the subject matter of independent claim 1 is patent ineligible, i.e., judicially excepted from statutory subject matter. Accordingly, we sustain the rejection of independent claim 1, with claims 2– 4, 11, 12, and 14–23 falling therewith.

Rejection II: Claims 1–4 and 18–21 under 35 U.S.C. § 103(a) as unpatentable over Hansson and Venkataraman

Independent claims 1 and 18 and dependent claims 2, 3, 19, and 20

In rejecting independent claim 1, the Examiner finds Hansson discloses the invention substantially as claimed, except for the "providing"

step. Final Act. 5–7. To teach the claimed "providing" step, the Examiner relies on Venkataraman, and determines it would have been obvious to modify the teachings of Hansson to include Venkataraman's "providing" step. *Id.* at 7–8. The Examiner makes a similar rejection for independent claim 18. *Id.* at 10–11.

Appellant argues Hansson does not disclose the step of

> receiving a request from an advertiser to increase a ranking of a target search result object in a typeahead search user interface, where the typeahead search user interface comprises a plurality of search result objects in which each search result object matches in part a prefix of a search query provided to the typeahead search user interface on an online system,

as recited in independent claims 1 and 18. Appeal Br. 11–14; Reply Br. 3–4. According to Appellant, the cited portions of Hansson relate to search query suggestions, whereas the "receiving a request" step recites "search result objects," which are more akin to Hansson's search results. Appeal Br. 13 (citing Hansson, Fig. 10); Reply Br. 3. Even if we agree with Appellant that Hansson's search results are more akin to the claimed "search result objects," Appellant nonetheless fails to apprise us of error.

As set forth above, the "receiving a request" step recites "a plurality of search result objects in which each search result object matches in part a prefix of a search query provided to the typeahead search user interface on an online system." In finding that Hansson discloses this step, the Examiner cites portions of Hanssen describing advertisements. Final Act. 5 (citing Hansson ¶¶ 46, 49). Indeed, Hansson discloses that advertisements may be provided in response to a user's query input. *See, e.g.,* Hansson, ¶ 44 ("[A]dvertisements can also be provided based on a current query input that does not constitute a completed query input, e.g., advertisements can be

provided based on a single character input, or on a current input that forms a stem for many different words.").

As Appellant points out, the Examiner also cites portions of Hansson relating to search query suggestions. Appeal Br. 13 (citing Final Act. 6–7). Like advertisements, Hansson discloses search query suggestions may be provided in response to a user's query input. *See, e.g.*, Hansson ¶ 47 ("[A] query suggestion system **118**, provides query suggestions **113** . . . in response to a query suggestion request."), Figs. 5A, 5C. Given that Hansson discloses providing advertisements and search query suggestions in response to a user's query input, Appellant does not apprise us of error in the Examiner's reliance on Hansson's query suggestions and advertisements for disclosing "search result objects."

Appellant further argues that Hansson does not disclose the "receiving a request" step because Hansson does not disclose "a request from an advertiser to increase a ranking of a target search result object," as recited in this step. Appeal Br. 14; Reply Br. 3–4. According to Appellant, "the only advertiser requests disclosed in Hansson are requests corresponding to advertising auctions to match ad requests with content," and "[n]owhere does Hansson disclose or suggest an advertiser requesting to *increase a ranking* of targeted search results." Appeal Br. 14. Appellant's argument does not apprise us of error.

According to Hansson, advertisement management system 130, in response to receiving a query stem, identifies word stems that match the query stem and provides corresponding stem bids of the matching word stems as bids to an advertisement auction for advertisement slots for displaying advertisements. Hansson ¶ 189. Once auctioning is complete,

advertisement management system 130 receives the advertisements that won advertisement slots in the auction and provides the selected advertisements for display in the advertisements slots. *Id.* ¶ 190, Fig. 10. Furthermore, as the Examiner finds, Hansson discloses the advertisements are ranked based on a score that may be proportional to a value based on an advertisement bid and one or more parameters specified in the performance data. *Id.* ¶ 46; Ans. 4–5. Given that Hansson discloses advertisements may be ranked based on an advertiser's bid, Appellant does not apprise us of error in the Examiner's reliance on Hansson's advertiser bids for disclosing "a request from an advertiser to increase a ranking of a target search result object," as recited in the "receiving a request" step.

Appellant argues Hansson does not disclose the step of

> determining a plurality of search result objects of the online system based on the search query to present as search results, comprising matching a prefix of the received search query to the plurality of search result objects, where the plurality of search result objects comprises the target search result object of the received request

as recited in independent claims 1 and 18. Appeal Br. 14–15. According to Appellant, the portions of Hansson the Examiner relies upon for disclosing the "determining" step relate to query suggestions, not search results. *Id.* at 15. Appellant's argument is not persuasive of error.

As set forth above, the Examiner is relying on Hansson's search query suggestions and advertisements for disclosing "search result objects." Indeed, Hansson discloses providing the search query suggestions and advertisements in response to a user's query input by matching a query stem, i.e., prefix of the query. More specifically, with respect to search query suggestions, Hansson discloses receiving a query stem from a user, e.g.,

keystroke inputs, providing each input to a search engine in the form of a query suggestion request, and, in response to the query suggestion request, identifying, ranking, and displaying query suggestions. Hansson ¶ 49, Fig. 1; *see also* Final Act. 6 (citing Hansson ¶ 4 ("A client device typically sends suggestion requests to a search engine with each keystroke, and the search engine provides the query suggestions with prefixes that match the entered characters.")). Similarly, in regard to advertisements, advertisement management system 130, in response to receiving a query stem, identifies word stems that match the query stem and provides corresponding stem bids for matching word stems as bids to an advertisement auction for advertisement slots for displaying advertisements. Hansson ¶ 189.

Appellant further argues that Hansson does not disclose the "determining" step because Hansson does not disclose a request from an advertiser to increase a ranking of a target search result object and therefore does not disclose search results including the target search result object, as recited in this step. Appeal Br. 15. We disagree.

As set forth above with respect to the "receiving a request" step, Hansson discloses advertisements may be ranked based on an advertiser's bid such that an advertiser's bid is a request from an advertiser to increase a ranking of a target search result object. Hansson ¶ 46. Moreover, Hansson discloses that, upon completion of an auction for an advertisement slot associated with a word stem corresponding to a query stem, advertisement management system 103 receives the winning advertisements and provides the winning advertisements for display in the advertisements slots. *Id.* ¶ 190, Fig. 10.

Appellant additionally asserts that Hansson does not disclose the step of "ranking, by a processor, the plurality of search result objects based on relevance of the search result objects to the requesting user, the ranking comprising increasing the ranking of the target search result object based on the received request," as recited in independent claims 1 and 18. Appeal Br. 15–16; Reply Br. 3–4. According to Appellant, the portions of Hansson the Examiner relies upon for disclosing the "ranking" step relate to query suggestions, not search results. *Id.* at 15. Appellant's argument is not persuasive of error.

Again, the Examiner is relying on Hansson's search query suggestions and advertisements for disclosing "search result objects." As the Examiner finds, Hansson discloses ranking both the search query suggestions and advertisements. Final Act. 7 (citing Hansson ¶¶ 49, 50); Ans. 4–5 (citing Hansson ¶ 46). Indeed, Hansson discloses query suggestion system 118 ranks query suggestions according to an order from a highest rank to a lowest rank, and the system can use various ranking algorithms, including ranking based on the probability of the query suggestion being selected by a user, assigning the highest rank to the shortest word with the highest probability of being selected by a user, and ranking so that natural extensions are grouped together. Hansson ¶¶ 49, 50. Hansson similarly discloses that the advertisements are ranked based on a score that may be proportional to a value based on an advertisement bid and one or more parameters specified in the performance data. *Id.* ¶ 46.

Appellant further contends that Hansson does not disclose the "ranking" step because Hansson does not disclose any way to increase a ranking. Appeal Br. 16. More specifically, Appellant argues that

"advertisements being ranked proportional to bids for the ads merely provide a ranked list of ads that are served to the user," and that "[t]here is no disclosure of increasing the ranking of any particular ad, at an advertiser's request or otherwise." Reply Br. 4. Appellant's argument is not persuasive of error.

As set forth above, Hansson discloses the advertisements are ranked based on a score that may be proportional to a value based on an advertisement bid and one or more parameters specified in the performance data. *Id.* ¶ 46. In other words, Hansson discloses that a higher bid from an advertiser would increase the ranking of an advertisement.

In view of the foregoing, Appellant does not apprise us of error in the Examiner's rejection of independent claims 1 and 18. Appellant does not present separate arguments for claims 2, 3, 19, and 20. Accordingly, we sustain the rejection of claims 1–3 and 18–20 under 35 U.S.C. § 103(a) as unpatentable over Hansson and Venkataraman.

Dependent claims 4 and 21

Appellant argues that Hansson does not disclose "retrieving the plurality of objects in the online system based on the one or prefix terms," as recited in each of claims 4 and 21. Appeal Br. 20. According to Appellant, the portions of Hansson the Examiner relies upon for disclosing the "retrieving" step relate to query suggestions, not search results, and consequently, Hansson does not disclose retrieving search result objects based on prefix terms, as recited in this step. *Id.* Appellant's argument is not convincing.

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As set forth above with respect to the "determining" step of independent claims 1 and 18, the Examiner is relying on Hansson's search query suggestions and advertisements for disclosing "search result objects." Hansson discloses providing the search query suggestions and advertisements in response to a user's query input by matching a query stem, i.e., prefix of the query. Hansson ¶¶ 4, 49, 189. Accordingly, Appellant does not convince us of error in the Examiner's finding that Hansson discloses the "retrieving" step recited in claims 4 and 21.

In view of the foregoing, Appellant does not apprise us of error in the Examiner's rejection of claims 4 and 21. We, therefore, sustain the rejection of claims 4 and 21 under 35 U.S.C. § 103(a) as unpatentable over Hansson and Venkataraman.

Rejection III: Claims 11, 12, and 14–17 under 35 U.S.C. § 103(a) as unpatentable over Hansson, Lobo, and Baluja

Independent claim 11 and dependent claims 12, 14, 16, and 17

In rejecting independent claim 11, the Examiner finds Hansson discloses the invention substantially as claimed, except for the "modifying" step and "where the determined specified object represents a node in the online system." Final Act. 13–15. To teach the claimed "modifying" step, the Examiner relies on Lobo, and determines it would have been obvious to modify the teachings of Hansson to include Lobo's "modifying" step. *Id.* at 14–15. The Examiner finds Baluja teaches "where the determined specified object represents a node in the online system," and determines it would have been obvious to modify the teachings of Hansson to include this teaching of Baluja. *Id.* at 15.

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Appellant argues Hansson does not disclose the step of "receiving a plurality of ad requests from one or more advertisers, where each ad request of the plurality of ad requests specifies an object in an online system to increase in a ranking of typeahead search result objects," as recited in independent claim 11 for the same reasons Hansson does not disclose the similar "receiving a request" step in independent claims 1 and 18. Appeal Br. 16–17; Reply Br. 3–4. Appellant's arguments regarding the "receiving a plurality of ad requests" step of independent claim 11 are unpersuasive for the same reasons discussed above in regard to the "receiving a request" step of independent claims 1 and 18.

Appellant also argues Hansson does not disclose the step of "determining that a specified object in a corresponding ad request matches the received one or more characters in the typeahead search query user interface using a prefix match, where the determined specified object represents a node in the online system," as recited in independent claim 11. Appeal Br. 17–18. According to Appellant, Hansson does not disclose a request from an advertiser to increase a ranking of a target search result object and therefore does not disclose matching a specified object in the request to one or more characters in the user's search query, as recited in this step. *Id.* This argument is not persuasive for the reasons discussed above in regard to independent claims 1 and 18.

Namely, Hansson discloses that advertisement management system 130, in response to receiving a query stem, identifies word stems that match the query stem and provides corresponding stem bids for matching word stems as bids to an advertisement auction for advertisement slots for displaying advertisements. Hansson ¶ 189. Hansson also discloses the

advertisements are ranked based on a score that may be proportional to a value based on an advertisement bid and one or more parameters specified in the performance data. Hansson ¶ 46; Ans. 6. Consequently, an advertiser's bid for a word stem is a request to increase a ranking of an advertisement, i.e., target search result object, and matching a word stem to a query stem discloses matching a specified object in the request to one or more characters in the user's search query.

Appellant further argues the Examiner has not sufficiently shown that the teachings of Hansson and Baluja render this "determining" step obvious. Appeal Br. 18. According to Appellant, this step requires "that the determined specified object must both match the received one or more characters in the typeahead search query *and* represent a node in the online system." *Id.* As such, Appellant contends:

> Merely showing one aspect of the claimed specified object in one reference and a different aspect of the same specified object in another reference would not lead one of skill in the art to combine them, but rather to the conclusion that a typical specified object is typically one or the other, but not both.

Id. Appellant's argument is not persuasive of error.

Here, the Examiner provides a reason why a person of ordinary skill in the art would have modified Hanson's disclosure to include Baluja's teaching of a determined specified object representing a node in the online system, i.e., to map advertisers or advertiser-selected keywords to facilitate the targeting of users of a social network. Final Act. 15 (citing Baluja ¶ 8). Appellant does not address this reason and, consequently, does not apprise us of Examiner error.

Appellant additionally argues Lobo does not disclose the step of "modifying the ranking of the plurality of typeahead search result objects to

increase a ranking of the determined specified object based on the corresponding ad request," as recited in independent claim 11.
Appeal Br. 18–19.[5] More specifically, Appellant asserts that, like Hansson, Lobo teaches modifying queries, as opposed to search results. *Id.* at 19. Appellant further contends Lobo does not teach modifying a ranking of search results or queries or modifying based on an ad request. *Id.* Appellant's argument based on Lobo is not persuasive because the Examiner is relying on the combined teachings of the cited references. Ans. 7–8.

As explained above, Hansson discloses providing advertisements and search query suggestions in response to a user's query input such that Hansson's advertisements and search suggestions disclose "search result objects." Final Act. 13–14; Ans. 7; Hansson ¶¶ 44, 47. Hansson further discloses receiving stem bids from advertisers and ranking the advertisements based on the value of a bid such that Hansson discloses receiving ad requests from advertisers to increase a ranking of a search result object and ranking the search result objects based on the ad requests. Final Act. 13–14; Ans. 7; Hansson ¶¶ 46, 189.

The Examiner further finds Lobo teaches an advertiser modifying a plurality of search listings. Ans. 8 (citing Lobo ¶ 34). The Examiner

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[5] In making this argument, Appellant asserts that the cited portion of Lobo is a summary of US 6,826,572 B2, which is not incorporated by reference into Lobo. Appeal Br. 19 (citing Lobo ¶ 34). A prior art reference, however, is available for all it teaches. *See In re Heck*, 699 F.2d 1331, 1332–33 (Fed. Cir. 1983) ("The use of patents as references is not limited to what the patentees describe as their own inventions or to the problems with which they are concerned. They are part of the literature of the art, relevant for all they contain." (quoting *In re Lemelson*, 397 F.2d 1006, 1009 (CCPA 1968))).

determines it would have been obvious to modify Hansson's disclosure to allow an advertiser to modify the ranking of search result objects, as taught by Lobo, to maximize the return on the advertiser's bid. *Id.* Appellant does not address the Examiner's proposed combination, and, consequently, does not apprise us of error.

In view of the foregoing, Appellant does not apprise us of error in the Examiner's rejection of independent claim 11. Appellant does not present separate arguments for claims 12, 14, 16, and 17. Accordingly, we sustain the rejection of claims 11, 12, 14, 16 and 17 under 35 U.S.C. § 103(a) as unpatentable over Hansson, Lobo, and Baluja.

Dependent claim 15

Appellant contends Hansson does not disclose the step of "retrieving in the corresponding ad request a bid amount for increasing the ranking of the determined specified object," as recited in claim 15. Appeal Br. 20–21. According to Appellant, Hansson discloses requests for advertisements in general, but does not disclose "a bid amount for *increasing* the ranking of the determined specified object," as claimed. *Id.* at 21 (citing Hansson ¶ 46). Appellant's argument is not persuasive of error.

As discussed above, Hansson discloses the advertisements are ranked based on a score that may be proportional to a value based on an advertisement bid. Hansson ¶ 46. Given that Hansson discloses a higher bid from an advertiser would increase the ranking of an advertisement, Appellant does not apprise us of error in the Examiner's finding that Hansson discloses "a bid amount for *increasing* the ranking of the determined specified object," as recited in the "retrieving" step of claim 15.

Appellant also contends that Lobo does not disclose the step of "determining a modified ranking of the plurality of typeahead search result objects based on the bid amount retrieved from the corresponding ad request," as recited in claim 15.[6] Appeal Br. 21–22. According to Appellant, Lobo teaches a system of bidding in general for advertisers, but does not provide much detail into the process of bidding. *Id.*

Like the "modifying" step of independent claim 11, the Examiner is not relying on Lobo exclusively. Rather, the Examiner relies on the combined teachings of the prior art (Ans. 9–10), and we find Appellant's argument unpersuasive of error for the reasons discussed above with respect to the "determining" step of independent claim 11.

In view of the foregoing, Appellant does not apprise us of error in the Examiner's rejection of claim 15. We, therefore, sustain the rejection of claim 15 under 35 U.S.C. § 103(a) as unpatentable over Hansson, Lobo, and Baluja.

Rejection IV: Claims 22 and 23 under 35 U.S.C. § 103(a) as unpatentable over Hansson, Venkataraman, and Lobo

Appellant makes the same arguments for claim 22 as for claim 15 (Appeal Br. 20–22), and we find these arguments unpersuasive of error for the reasons discussed above with respect to claim 15. Appellant does not argue claim 23 separately. Accordingly, we sustain the rejection of claims

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[6] In making this argument, Appellant asserts that the cited portion of Lobo is a summary of US 2004/0088241 A1, which is not incorporated by reference into Lobo. Appeal Br. 21 (citing Lobo ¶ 24). As set forth in a preceding footnote, however, a prior art reference is available for all it teaches.

22 and 23 under 35 U.S.C. § 103(a) as unpatentable over Hansson,
Venkataraman, and Lobo.

DECISION

The Examiner's decision to reject claims 1–4, 11, 12, and 14–23
under 35 U.S.C. § 101 is affirmed.

The Examiner's decision to reject claims 1–4, 11, 12, and 14–23
under 35 U.S.C. § 103(a) is affirmed.

No time period for taking any subsequent action in connection with
this appeal may be extended under 37 C.F.R. § 1.136(a). 37 C.F.R.
§ 1.136(a)(1)(iv).

AFFIRMED