# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 13/717,541 | 12/17/2012 | Alon Amit | 26295-20621/US | 3182 |

| 87851      7590      07/01/2020 | EXAMINER |
|---|---|
| Facebook/Fenwick<br>Silicon Valley Center<br>801 California Street<br>Mountain View, CA 94041 | VAN BRAMER, JOHN W |

| ART UNIT | PAPER NUMBER |
|---|---|
| 3621 | |

| NOTIFICATION DATE | DELIVERY MODE |
|---|---|
| 07/01/2020 | ELECTRONIC |

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PTOL-90A (Rev. 04/07)

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* ALON AMIT and GREGORY JOSEPH BADROS

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Appeal 2020-001715
Application 13/717,541
Technology Center 3600

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Before ST. JOHN COURTENAY III, JOHN A. EVANS, and
JASON M. REPKO, *Administrative Patent Judges*.

REPKO, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Under 35 U.S.C. § 134(a), Appellant[1] appeals from the Examiner's decision to reject claims 1–11, 13–18, and 20–25. Claims 12 and 19 are canceled. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

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[1] We use the word *Appellant* to refer to *applicant* as defined in 37 C.F.R. § 1.42(a). According to Appellant, the real party in interest is Facebook, Inc. of Menlo Park, California. Appeal Br. 2.

CLAIMED SUBJECT MATTER

Appellant's invention targets advertisements to users based on searches. Spec. ¶ 4. In particular, the system allows advertisers to bid on search results that include particular information. *Id.* ¶ 24. According to the Specification, allowing advertisers to target advertisements to users based on a user's search is a valuable opportunity to drive traffic to websites and increase engagement with brands. *Id.* ¶ 4.

Claims 1 and 13 are independent. Claim 1 is reproduced below.

1. A method comprising:

receiving a plurality of ad requests, the plurality of ad requests including targeting criteria that specify a corresponding advertisement be displayed when a search result includes a particular object in an online social networking system;

receiving, by the online social networking system, a search query received via a search engine user interface of the online social networking system from a user of the online social networking system;

determining a plurality of search results based on content from the received search query;

retrieving, by a processor, a plurality of advertisements with targeting criteria targeting the plurality of search results;

determining, by the processor, one or more of the plurality of search results including the particular object in the online social networking system;

selecting an advertisement from the retrieved plurality of advertisements with targeting criteria matching the particular object of the determined one or more search results; and

providing the plurality of search results and the selected advertisement for display to the user via the search engine user interface of the online social networking system responsive to the search query.

Appeal Br. 9.[2]

REFERENCES

The Examiner relies on the references in the table below.

| Name | Reference | Date |
|------|-----------|------|
| Emens | US 7,076,443 B1 | July 11, 2006 |
| Kendall | US 2009/0182589 A1 | July 16, 2009 |
| Abraham | US 2010/0153215 A1 | June 17, 2010 |

REJECTION

The Examiner rejects claims 1–11, 13–18, and 20–25 under 35 U.S.C. § 103 as unpatentable over Kendall, Abraham, and Emens. Final 3–10.

OPINION

*The Rejection of Claim 1*

The Examiner finds that Kendall teaches all limitations of claim 1 except for targeting criteria that specify displaying an advertisement when a user searches for a particular object in an online social-networking system. Final 3–4. For these limitations, the Examiner turns to Abraham and Emens. *Id.* at 4–5. In particular, the Examiner cites Abraham for its teachings about search terms. *See id.* at 4. And the Examiner finds that Emens teaches

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[2] Throughout this opinion, we refer to the Final Office Action ("Final"), mailed January 29, 2019; the Appeal Brief ("Appeal Br."), filed June 26, 2019; the Examiner's Answer ("Ans."), mailed November 1, 2019; and Reply Brief ("Reply Br."), filed January 2, 2020. The Appeal Brief lacks pages numbers. So citations to the Appeal Brief in this opinion refer to the pages consecutively starting from the cover page.

targeting advertisements to users based on search results. *Id.* at 5 (citing Emens 5:54–5:21, 6:35–43).

## *Appellant's Arguments*

Appellant argues that the Examiner's three-reference rejection demonstrates that the claimed features are typically found separately in the art. Appeal Br. 4–6. Appellant argues that Kendall's ad requests lack the targeting criteria for search requests. Reply Br. 2–3. Appellant argues that Emens finds objects *related to* search results, not an object *in* a search result. *Id.* at 4. And Appellant argues that Abraham teaches comparing advertisements to the user information, not comparing an advertisement's targeting criteria to the search results as claimed. Appeal Br. 6–7.

## *Issues*

I. Under § 103, has the Examiner erred in finding that Kendall, Abraham, and Emens collectively teach or suggest "receiving a plurality of ad requests, the plurality of ad requests including targeting criteria that specify a corresponding advertisement be displayed when a search result includes a particular object in an online social networking system," as recited in claim 1?

II. Under § 103, has the Examiner erred in finding that Kendall, Abraham, and Emens collectively teach or suggest "selecting an advertisement from the retrieved plurality of advertisements with targeting criteria matching the particular object of the determined one or more search results," as recited in claim 1?

## *Analysis*

### I

Claim 1 recites, in part, "targeting criteria that specify a corresponding advertisement be displayed when a search result includes a particular

object." Appeal Br. 10. We are unpersuaded by Appellant's argument that Kendall teaches triggering ads using a friend's actions, not search results. *Id.* at 5; Reply Br. 3. For the limitation at issue here, the Examiner relies on a combination of Kendall and Emens. *See* Final 4–5.

Kendall's advertisers bid for ad placement on a social-networking website. Kendall ¶ 80. As part of the bidding process, the social-network operator receives ad requests from advertisers. *Id.* Kendall's Figure 11, below, is a diagram of an ad request. *Id.* ¶ 81.
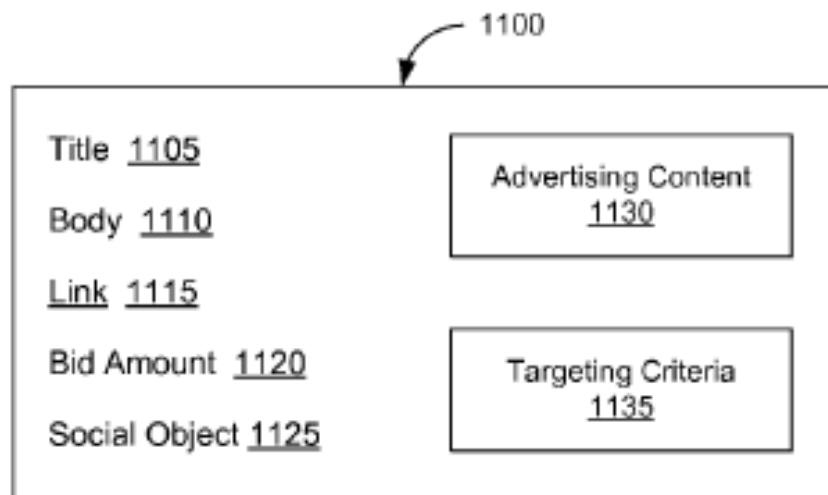


**FIG. 11**

Figure 11, above, shows ad request 1100 with targeting criteria 1135. *Id.* ¶ 83. Ad request 1100 also includes bid-amount field 1120 and social-object field 1125, among other things. *Id.* ¶ 81. Social-object field 1125 specifies one or more objects that will trigger a social ad when an action related to the object occurs. *Id.* ¶ 83.

The Examiner finds that Kendall's triggering criteria do not include search results. Final 4. To address this feature, the Examiner finds that Emens teaches targeting advertisements to search results. *Id.* at 5 (citing Emens 5:54–5:21, 6:35–43).

In particular, Emens teaches that users search for information that they are interested in, and thus, users are also likely interested in advertisements related to those searches. Emens 5:11–13. So Emens selects advertisements for a user based on the user's search results. *Id.* at 5:20–21. For example, Emens matches each search result to related product advertisements. *Id.* at 5:40–43. From these teachings, the Examiner determines that it would have been obvious to improve Kendall's advertising with Emens's correlation of search results to related or similar advertisements. Final 5 (citing Emens 4:54–5:19–21, 6:35–43).

We disagree with Appellant that the Examiner's analysis "represents piecemeal treatment of the elements." Appeal Br. 5–6; *see also* Reply Br. 5–6 (arguing that the Examiner has not addressed the claim as a whole). Rather, the Examiner adequately supports the obviousness rationale here. Final 5. In particular, the Examiner determines that the proposed modification would further narrow the basis for selecting ads targeting Kendall's users. *Id.* Indeed, Emens uses the ad-to-search correlation for the same reason. Emens 5:19–21, *cited in* Final 5. Also, Kendall states that "the techniques described herein may be used with search engines." Kendall ¶ 102, *cited in* Ans. 4. In this way, the Examiner's proposed enhancement uses Emens and Kendall predictably according to their established functions, which is an obvious improvement. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007).

On this record, we are unpersuaded that the Examiner erred in finding that Kendall, Abraham, and Emens collectively teach or suggest "receiving a plurality of ad requests, the plurality of ad requests including targeting criteria that specify a corresponding advertisement be displayed when a

search result includes a particular object in an online social networking
system," as recited in claim 1.

## II

Claim 1 further recites, in part, "selecting an advertisement from the
retrieved plurality of advertisements with targeting criteria matching the
particular object of the determined one or more search results."
Appeal Br. 10.

Appellant argues that Emens does not use an object already included
in a search result. Reply Br. 4. In Appellant's view, Emens's focus is finding
objects related to search results. *Id.* But this argument does not account for
the Examiner's reliance on Kendall's targeting criteria. Final 4. Specifically,
Kendall records actions in a log. Kendall ¶ 73. Kendall's ad server then
selects ad requests with targeting criteria matching those logged actions. *Id.*,
*cited in* Final 4. The Examiner concludes that it would have been obvious to
match search results with Kendall's triggering criteria. *See* Final 4–5
(discussing search results as triggers); Ans. 4. Thus, Appellant's argument
(Reply Br. 4) fails to account for the Examiner's proposed modification to
Kendall's matching with Emens's ad-to-search correlation. Final 4–5.

Appellant also argues that Abraham compares advertisements to the
user information, not targeting criteria to the search results, as claimed.
Appeal Br. 6–7. Appellant argues that users enter Abraham's search
requests, but the requests do not contain an object from an online social-
networking system. *Id.* at 7. Appellant argues that Abraham shows two
separate comparisons: (1) user information to search-result information and
(2) user information to advertisements. *Id.* (citing Abraham ¶¶ 47–48).
According to Appellant, Abraham does not match ad-targeting criteria to

particular search-result objects. *Id.* In Appellant's view, Abraham is not about social networking. *Id.* We find these arguments unpersuasive.

Kendall's teachings relate to social networking. *See generally* Kendall, Abstract. And, as discussed above, the Examiner cites Kendall to address the claimed targeting criteria, and Emens for its teachings about search results. Final 3–4. The Examiner asserts, and we agree, that Appellant's arguments about Abraham's lack of a social network do not squarely address the Examiner's findings about Kendall and Emens. *See* Ans. 5–6 (discussing Appeal Br. 6–7). In the rejection, the Examiner cites Abraham for its teachings about search terms. *See* Final 4.

Like the recited selecting, Kendall's ad server selects ad requests by matching targeting criteria to other information. Kendall ¶ 73, *cited in* Final 4, Ans. 4. But as discussed above, Kendall's matching operates on logged actions. *Id.* Emens, however, teaches that search results are useful criteria for ads. Emens 5:11–13. So Emens matches search results to advertisements. *Id.* at 5:40–43. On this record, Appellant has not persuasively rebutted the Examiner's conclusion that the recited selection would have been obvious over this combination of Kendall and Emens. *See* Final 4–5; Ans. 5–6.

Thus, we are unpersuaded that the Examiner erred in finding that Kendall, Abraham, and Emens collectively teach or suggest "selecting an advertisement from the retrieved plurality of advertisements with targeting criteria matching the particular object of the determined one or more search results," as recited in claim 1. On this record, and based upon a preponderance of the evidence, we sustain the rejection of claim 1.

*Claim 13*

According to Appellant, its arguments for claim 1 also apply to claim 13. Appeal Br. 4. So, for the same reasons discussed in connection with claim 1, we sustain the rejection of claim 13.

*Claims 9 and 16*

Claim 9 recites, in part, "determining one or more object types of a plurality of objects in the social networking system included in the plurality of search results." Appeal Br. 12. Claim 16 recites a similar limitation. *Id.* at 14.

The Examiner finds that Kendall determines one or more object types of multiple objects included in an action log. Final 8; Ans. 6–7. As discussed above, the Examiner relies on Emens's teachings about matching ads to search results. Final 4–5; Ans. 6–7.

Appellant argues that the cited references do not teach or suggest the recited object-type determination. Reply Br. 6. According to Appellant, Kendall only uses object types in ad requests. *Id.*; *see also* Appeal Br. 8 (citing Kendall ¶ 73). As for Abraham and Emens, Appellant argues that each describes parsing a search for a particular item, not an object type. Reply Br. 7 (citing Abraham ¶¶ 47–48; Emens 5:11–17).

Appellant's arguments are unpersuasive because they fail to account for the Examiner's proposed modification of Kendall with Emens. *See* Appeal Br. 8; Reply Br. 6–7. In particular, Kendall's ad server 38 matches action entries from action log 160 with the ad requests. Kendall ¶ 73. The ad requests specify "a *type of object* for which an action related to that object triggers a social ad." *Id.* (emphasis added). In this way, the Examiner has shown that Kendall determines one or more object types for multiple objects in the action log. Final 8.

To be sure, the claimed determining step is limited to "search results," not an action log. The Examiner, though, determines that it would have been obvious to modify Kendall with Emens to arrive at the claimed invention. *Id.* at 4–5. As discussed in connection with claim 1, Emens uses search results to select target advertisements for each user. Emens 5:20–21. So the Kendall-Emens combination teaches the recited object-type determination. On this record, Appellant's arguments about Abraham do not squarely address the Examiner's reliance on Kendall and Emens. *See* Appeal Br. 8; Reply Br. 6–7.

Thus, we sustain the rejections of claims 9 and 16.

*Claims 2–8, 10, 11, 14, 15, 17, 18, and 20–25*

Claims 2–8, 10, 11, 14, 15, 17, 18, and 20–25 directly or indirectly depend from one of claims 1 and 13. Appellant does not present separate arguments for the rejections of claims 2–8, 10, 11, 14, 15, 17, 18, and 20–25. *See* Appeal Br. 4–8; Reply Br. 2–7. So, for the reasons discussed above regarding claims 1 and 13, we also sustain the rejections of claims 2–8, 10, 11, 14, 15, 17, 18, and 20–25.

Arguments that have not been made are waived. *See* 37 C.F.R. § 41.37(c)(1)(iv).

CONCLUSION

The Examiner's decision to reject claims 1–11, 13–18, and 20–25 is affirmed.

## DECISION SUMMARY

| Claims Rejected | 35 U.S.C. § | Reference(s)/Basis | Affirmed | Reversed |
|---|---|---|---|---|
| 1–11, 13–18, 20–25 | 103 | Kendall, Abraham, Emens | 1–11, 13–18, 20–25 | |

## TIME PERIOD FOR RESPONSE

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

## AFFIRMED