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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ASSAF HENKIN, ITAI BRICKNER, and
STANISLAV KRICHEVSKY

Appeal 2019-000484
Application 13/234,679
Technology Center 3600

Before JAMES P. CALVE, MICHAEL J. FITZPATRICK, and
PAUL J. KORNICZKY, *Administrative Patent Judges*.

CALVE, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the decision of the Examiner to reject claims 1, 4–14, and 17–30. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

¹ “Appellant” refers to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies Amobee, Inc. as the real party in interest. Appeal Br. 2.

CLAIMED SUBJECT MATTER

Claims 1 and 14 are independent, with claim 1 reproduced below with disputed limitations highlighted in italics.

1. A method comprising:
receiving, at a server computer, text from a client computing device, the text representing a user's web search query that has been submitted to a search engine during a web browsing session of the user;
accessing a target web page that the user has requested to view subsequent to the submitting of the user's web search query;
before communicating the target web page for presentation on the client computing device, *selecting a content item in ordinary text of the target web page based on a combination of a first related score, a second related score, and a third related score, the first related score representing a relatedness of the target web page to the content item, the second related score representing a relatedness of the content item to advertising content, the third related score representing a relatedness of the target web page to the advertising content;*
selecting the advertising content based on the selecting of the content item;
modifying the target web page in real-time to convert the content item in the web page to an interactive link such that when the interactive link is invoked by the client computing device, the client computing device presents the advertising content along with the web page; and
communicating to the modified target web page to client computing device for presentation on the client computing device.

REJECTION

Claims 1, 4–14, and 17–30 are rejected under 35 U.S.C. § 103(a) as unpatentable over Sravanapudi (US 2007/0174255 A1, pub. July 26, 2007) and Kraft (US 7,603,349 B1, iss. Oct. 13, 2009).

ANALYSIS

Independent Claims 1 and 14

The Examiner finds that Sravanapudi identifies content related to input content (a uniform resource locator, text from a web page), creates hyperlinks (e.g., “in-line” text ads) to receive content, extracts text from a search query or web page, and analyzes the text to select ads related to the extracted text, as recited in claims 1 and 14, but Sravanapudi lacks “before communicating the target web page for presentation on the client computing device, selecting a content item in ordinary text of the target web page based on a combination of a first related score, a second related score, and a third related score” and modifying the target web page to convert the content item to an interactive link. Final Act. 3–8. The Examiner relies on Kraft to teach these features as pop-up elements that display additional information with a query entry area, links to a page, and a query response module that enhances search results with additional information such as links and/or advertising copy obtained from a sponsor content database. *Id.* at 5–7; Ans. 3–4.

Appellant argues that Kraft does not teach “selecting a content item in ordinary text of a web page for modification based on a combination of three relatedness scores,” or the details of the three relatedness scores recited in claims 1 and 14. Appeal Br. 15. Appellant argues that Kraft’s enhancement of search results with additional information such as links and/or advertising copy obtained from a sponsored content database does not teach or suggest first, second, and third scores or selecting a content item in ordinary text of a target web page based on a combination of those scores. *Id.* Appellant also argues that there is no citation to Kraft for a “third related score representing a relatedness of the target web page to the advertising content.” *Id.*

In response, the Examiner asserts that Kraft’s “query response module may enhance search result information (from terms search from content vector) with additional information such as links and/or advertising copy (**first and second scores**) obtained from a sponsor content database.” Ans. 4. The Examiner finds that Kraft does so by displaying web pages with links to hit pages, sites, or advertising from a sponsor content database. *Id.* at 3–5.

The Patent Laws set forth the standard for obviousness as follows:

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.

35 U.S.C. § 103(a). Obviousness is a question of law based on fact findings as to (1) the scope and content of the prior art, (2) differences between the prior art and the claims at issue, (3) the level of ordinary skill in the pertinent art, and (4) secondary indicia of obviousness or nonobviousness. *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17–18 (1966). “[W]hen evaluating claims for obviousness under 35 U.S.C. § 103, all the limitations of the claims must be considered and given weight.” *In re Gardner*, 449 F. App’x 914, 916 (Fed. Cir. 2011) (non-precedential) (citing *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530 (Fed.Cir.1983)); see *In re Glatt Air Techs., Inc.*, 630 F.3d 1026, 1030 (Fed. Cir. 2011) (holding obviousness was not established where the prior art failed to teach the claimed shielding); *In re Mettke*, 570 F.3d 1356, 1361 (Fed. Cir. 2009) (finding prima facie case of obviousness where prior art taught every element of the claim performing the same function as in the claim with a reason to combine the elements).

We agree with the Examiner that Kraft teaches “a first related score representing a relatedness of the target web page to the content item” as claimed. As part of this feature, Kraft teaches “a content item in ordinary text of the target web page” as *words of interest*. Kraft provides an example of such a content item using the word “Radio” 1910 in the phrase “Sirius Satellite Radio” in Figure 19 (item 1910). Kraft, 26:37–50. Kraft describes this feature as created by a text selection tool called a “term extrapolator.” *Id.* Kraft teaches that a user selects this content item via an interactive link.

The user then clicks on a desired location (e.g., a word of interest) in a page 1908 that is being displayed in browser window 1906. For example, the user may click on the word “Radio” at 1910. An approximately circular region 1912 around the selected word is highlighted and used to derive context. A pop-up menu 1914 also appears, offering various choices to the user, such as related searches, sponsored content, and the like.

Id. at 26:43–50. The pop-up menu includes links to pages with information about people and companies based on a “context vector” that is determined from text contained in the web page and “sponsored content” related to the subject of the article, which Kraft teaches elsewhere includes advertising content. *Id.* at 26:51–60, 8:59–62 (query response module 164 may enhance search result information with additional information such as links and/or *advertising copy* obtained from sponsored content database 162).

The context vector is created for a web page based on keywords and terms (words or phrases) that appear in web page content with a frequency count of how many times the term occurs in the content. *Id.* at 9:1–15. The context vector provides a first related score of the relatedness of the target web page to the content item (word/phrase) contained in the web page.

Kraft also teaches that search providers maintain a database of web pages that associate the URL of each page with keywords, category data, and the like reflecting the content of the web page and then use algorithms to rank (score) the relatedness of each page to a query based on frequency of occurrence of keywords and other information. *Id.* at 1:38–63. This score also relates a content item to a target web page as recited for the first score.

The context vector also provides additional information with the list of terms from the web page content to specify each term's frequency, which reflects the number of times the term occurs in content 302 of the web page as well as document frequency, weight, and term type. Kraft 10:35–46. The context vector thus provides a first related score of the “content item” (word or phrase) in a target web page to the target web page as claimed.

We also agree with the Examiner that Kraft teaches a “second related score representing a relatedness of the content item to advertising content” by associating sponsored content (e.g., advertising) with keywords extracted from a received context vector, where the items of sponsored content are selected from a sponsored content database 162 based on those keywords. Kraft, 22:30–46. The selection of sponsored content items can be based on “the number or importance of the keywords matched by each item.” *Id.* at 22:40–45. The sponsored/special content items also include shopping and advertising information. *Id.* at 22:65. A “Shop in Context” content feature provides links and text in web page content (Fig. 14) that allows users to buy merchandise related to the subject of a news story 602, e.g., about Bono. *Id.* at 21:43–63; Ans. 3–5. Kraft thus provides a second related score that represents the relatedness of the content item (extracted from web page text by a context vector) to sponsored advertising content as claimed.

However, the Examiner has not provided any findings to explain how Kraft teaches a “third related score representing a relatedness of the target web page to the advertising content” as claimed. Appellant’s Specification discloses that the similarity in a score of a web page and a score of a content item such as an advertisement may be used to match these two items. Spec. ¶ 45. Content enhancement server 12 can select a word/phrase in a web page that relates to a topic of the web page (first related score) *and* to an advertisement (second related score), and the word or phrase may hyperlink the two pages. *See id.*

Because Kraft scores the relatedness of a content item to a web page *and* to an advertisement, comparing the first and second scores indicates the relatedness of a target web page and advertisement. *See Kraft*, 4:6–17 (pop-up element links to a page with content related to the search context), 8:5–67 (web pages are ranked by the occurrence of search terms in a search query and context identifiers, and keywords are used to trigger the display of sponsored content (links or ads)); 9:5–35 (special content selected for web page based on context vector for that page); 22:19–52 (web page augmented with sponsored content associated with keywords extracted from context vector for that web page).

For the foregoing reasons, we agree with the Examiner’s findings that Kraft teaches first and second related scores. Ans. 4. However, because the Examiner does not address whether Kraft also teaches a third related score (*see* Ans. 4), we do not sustain the rejection of independent claims 1 and 14 or their dependent claims 4–13 and 17–30.

CONCLUSION

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 4-14, 17-30	103(a)	Sravanapudi, Kraft		1, 4-14, 17-30
Overall Outcome				1, 4-14, 17-30

REVERSED