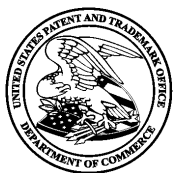

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MARTIN BRANDT FREUND and YUANYING XIE

Appeal 2019-006781
Application 14/010,428
Technology Center 3600

Before CYNTHIA L. MURPHY, KENNETH G. SCHOPFER, and BRADLEY B. BAYAT, *Administrative Patent Judges*.

BAYAT, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant[1] appeals under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1–7 and 9–21 under 35 U.S.C. § 103 as unpatentable over Spivack[2] and Zhang.[3] We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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[1] "Appellant" refers to "applicant" as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as "Google LLC." Appeal Br. 3.
[2] Spivack et al., US 2013/0298084 A1, pub. Nov. 7, 2013 ("Spivack").
[3] Zhang et al., US 2010/0005105 A1, pub. Jan. 7, 2010 ("Zhang").

Invention

Appellants' invention is titled "**DETECTING TRENDS FROM IMAGES UPLOADED TO A SOCIAL NETWORK**." The Abstract of Appellant's Specification describes the invention as follows:

> A system and method is disclosed for detecting marketable subjects within digital images uploaded to the social network. Software associated with a social network detects a marketable subject in a plurality of images provided to a social stream by a group of users who share a relationship in the social network. A popularity of the marketable subject within the group of users is determined based on the detecting, and a current trend is identified for the group of users based on the popularity and a relevant time period for the images. A vendor related to the marketable subject may be notified that the current trend applies to one or more of the group of users.

Claimed Subject Matter

Method claim 1, machine-readable medium claim 13, and system claim 20 are independent and recite substantially similar subject matter. Claim 1, reproduced below, is representative of the claimed subject matter on appeal.

> 1. A computer-implemented method, comprising:
>
> for each of a plurality of images uploaded to a social stream of an electronic social network via a first user interface by a user of a predetermined group of users sharing a common connection in the social network, automatically analyzing, by one or more computing devices, image data embedded within the uploaded image to identify a predetermined object displayed in the uploaded image in response to the image being uploaded to the social stream;
>
> determining, based on identifying the predetermined object, a popularity of the predetermined object in the plurality of images uploaded to the social stream for the predetermined group of users;

> identifying, for the predetermined group of users, a current trend based on the popularity and a relevant time period for the images;
>
> determining, for each user of the predetermined group of users, a level of relevancy of the identified predetermined object based on information associated with the user; and
>
> providing, by the one or more computing devices, an electronic notification to a second user interface, the electronic notification indicating that the current trend applies to one or more users of the predetermined group of users whose level of relevancy satisfies a predetermined threshold, wherein the second user interface is different than the first user interface associated with uploading the plurality of images to the social stream and is accessed by an entity different from the group of users.

Appeal Br. 11, Claims App.

OPINION

The Examiner rejects independent claims 1–7 and 9–21 under 35 U.S.C. § 103 as unpatentable over Spivack and Zhang. Final Act. 3–13. Appellant argues claims 1–7 and 9–21 as a group and designates independent claim 1 as representative of the group. Appeal Br. 6; Reply Br. 3. We also select claim 1 as representative for the group, with claims 2–7 and 9–21 standing or falling therewith. 37 C.F.R. § 41.37(c)(1)(iv)(2019).

In contesting the Examiner's rejection of claim 1 as unpatentable over Spivack and Zhang, Appellant's sole argument is that "[t]he combination of Spivack and Zhang fails to teach or suggest 'providing, by the one or more computing devices, an electronic notification to a second user interface, the electronic notification indicating that the current trend applies to one or more users of the predetermined group of users whose level of relevancy satisfies a predetermined threshold,' as recited in claim 1." Appeal Br. 7. In particular, Appellant reproduces paragraphs 192–94 of Spivack and asserts

that Spivack does not disclose that "alerts can be in any way related to trends applied to users, let alone to trends allied [sic, applied] to users whole level of relevancy of an identified object satisfies a predetermined threshold." *Id.* at 8. On page 9 of the Appeal Brief, Appellant reproduces portions of paragraphs 48 and 56 of Zhang and asserts that "nowhere does Zhang teach or suggest that an alert provided to marketers indicates that an emerging fashion trend applies to users of a predetermined group whose level of relevancy of a particular object satisfies a predetermined threshold." Appellant then concludes that "the combination of Spivack and Zhang does not teach or suggest the above-recited feature of claim 1." *Id.* at 10.

In response to Appellant's argument, the Examiner provides a detailed explanation as to how the above contested limitation is disclosed by the prior art. *See* Ans. 4–7. The Examiner takes issue with Appellant's argument, which attacks each reference individually, because the rejection of the contested limitation in claim 1 is based on the combined teachings of Spivack and Zhang. Ans. 4.[4] According to the Examiner:

> Specifically, Fig. 5A and 7A of Spivack show a display of trending objects associated with a group of users (par. [0195] and [0210]). Spivack further states that a requesting user may detect, identify, predict, determine, and access trends among objects associated with a particular group of users (par. [0070]-[0071]). Fig. 2A further shows that the trends are provided to a computing device of user 217A that is different from the group of users 216N that are uploading content (par. [0051] and [0054]). Therefore, Spivack teaches the limitations, "providing, by the one or more computing devices, an electronic notification to a second user interface, the

[4] Citing *In re Keller*, 642 F.2d 413 (CCPA 1981) and *In re Merck & Co.*, 800 F.2d 1091 (Fed. Cir. 1986).

> electronic notification indicating that the current trend applies to one or more users of the predetermined group of users."
>
> Spivack further states, "[t]he scoring engine 340 can determine the relevance of any message/piece of content to a given concept/theme/trend/topic/person/place, etc.," wherein the relevance "can be used for various applications including…retrieval of the content/message when relevant (e.g., when a search is conducted for the topic or a related topic, when a related topic is queried or selected, when the topic itself if queried or selected)" (par. [0079]). It further states that the display may provide a visualization of trending objects and all relevant connected objects, wherein the visualization may be updated "continuously or periodically… such that the depicted trends/popularity or relevance levels to various facets/users are current" and wherein "each node has a different visual style…which is based on how interesting and relevant the node is to a facet or a user" (par. [0115]). Fig. 4C further shows exemplary rules by which a group of users are selected to be evaluated where conditions such as "people who follow me" or "people with Klout score > x" indicate a group of users that are "relevant." Therefore, Spivack clearly suggests providing trends that apply to a group of users wherein the users are determined based on a level of relevancy, wherein the level of relevancy is determined in relation to a particular topic/trend or based on configured rules.

Id. at 4–5. The Examiner asserts that "[t]he only difference between the argued limitation and Spivack is an explicit teaching of users whose level of relevancy *satisfies a predetermined threshold*," for which Zhang is relied upon. *Id.* at 6. The Examiner states that Zhang discloses a system for facilitating social networking by extracting user preferences from social media posts and teaches identifying objects in images uploaded by a

plurality of users to a social stream. *Id.* (citing Zhang ¶¶ 39–43). According to the Examiner, Zhang

> further teaches clustering users based on similarity measures between their respective fashion preferences and selecting a group of users associated with a requesting user (par.[0048]), wherein the user preferences are identified by the objects extracted from the images (par. [0054]) and the clusters are identified based on the similarity measure satisfying a minimum cost (par. [0052]). It further teaches presenting information regarding the identified group of users (par.[0061]-[0064]). Therefore, Zhang teaches providing an electronic notification regarding one or more users whose level of relevancy, *i.e.* "similarity measure," satisfies a predetermined threshold, *i.e.* "minimum-cost."

Id.

In response to the Examiner, Appellant replicates portions of the Examiner's Answer and paragraphs 70, 71, 195, and 210 of Spivack, and states: "Spivack teaches displaying trending of search results, displaying aggregated personalized information streams from various social media sites, and analyzing messages to detect trends with respect to those messages including trends in activities for a group of users that a user follows in a social network." Reply Br. 5. Appellant then argues:

> However, nowhere does Spivack teach or suggest that an electronic notification indicating any of these trends is provided to a user interface or that any of these trends is a current trend which is identified based on "a popularity of the predetermined object in the plurality of images uploaded to the social stream for the predetermined group of users," where "the predetermined group of users" shares "a common connection in the social network," as recited in claim language preceding the above limitation of claim 1, and therefore would be required to teach or suggest the features of claim 1 under the alleged interpretation put forth in the Examiner's Answer.

Id.

First, we are not persuaded of Examiner error because Appellant does nothing to call into question the specific underlying factual findings made by the Examiner and the evidentiary support cited therefor. Spivack is directed to a system for analyzing streams or sets of messages/content in a network or across networks to extract information to determine useful data such as current trends or predict upcoming trends. Spivack ¶¶ 38–39 (cited Final Act. 4). Spivack discloses that such messages or content include video, audio, and photo content subject of online or network activity that can be detected and analyzed to extract useful information for trending. Spivack ¶¶ 51–52 (cited Final Act. 4). The Examiner finds that such detection can be used to identify trends and upcoming trends for a specific group of users. Ans. 4–5 (citing Spivack ¶¶ 70–71). The Examiner indicates that Figure 2A shows and paragraphs 51 and 54 of Spivack disclose "that the trends are provided to a computing device of user 217A that is different from the group of users 216A that are uploading content." Ans. 5. In other words, Appellant does not adequately explain why electronically communicating and informing current trend data from one group of users to another does not teach "providing, by the one or more computing devices, an electronic notification to a second user interface, the electronic notification indicating that the current trend applies to one or more users of the predetermined group of users," as required by claim 1. Moreover, the Examiner finds that Zhang's system also identifies emerging fashion trends that can be tracked over time, which "can enable market research application to automatically create consumer segments and alert marketers to emerging segments." Zhang ¶ 64 (cited Ans. 4).

Second, Appellant presents an additional argument that Spivack does not teach or suggest that "any of these trends is a current trend which is identified based on 'a popularity of the predetermined object in the plurality of images uploaded to the social stream for the predetermined group of users,' where 'the predetermined group of users' shares 'a common connection in the social network'." Reply Br. 5. Appellant uses the Reply Brief to introduce a new argument based on other limitations in claim 1. "Any bases for asserting error, whether factual or legal, that are not raised in the principal brief are waived." *Ex parte Borden*, 93 USPQ2d 1473, 1474 (BPAI 2010) (informative); *see also Optivus Tech., Inc. v. Ion Beam Appl'ns. S.A.*, 469 F.3d 978, 989 (Fed. Cir. 2006) ("[A]n issue not raised by an appellant in its opening brief . . . is waived.") (citing *Becton Dickinson & Co. v. C.R. Bard, Inc.*, 922 F.2d 792, 800 (Fed. Cir. 1990)). Appellant could have presented the newly introduced argument in the Appeal Brief. As discussed above, Appellant's sole argument in the Appeal Brief is directed at the final limitation of claim 1. Appellant, however, may not present arguments in a piecemeal fashion, holding back arguments until an examiner answers the original brief, without giving the Examiner an opportunity to respond. This basis for asserting error is waived. 37 C.F.R. § 41.37(c)(1)(iv).

On page 6 of the Reply Brief, Appellant replicates portions of the Examiner Answer and paragraphs 79 and 115 of Spivack and argues "nowhere does Spivack teach or suggest that a notification is provided indicating that a current trend is applied to users of a predetermined group, let alone to users of the predetermined group whose level of relevancy of an identified object satisfies a predetermined threshold." Similarly here,

Appellant has not adequately addressed the Examiner's detailed factual findings, and support therefor, by presenting arguments that identify the alleged error in the rejection as to the limitation providing an electronic notification indicating the current trend applies to one or more users of the predetermined group of users. Moreover, Appellant's attack on Spivack for not teaching users of the predetermined group whose level of relevancy of an identified object *satisfies a predetermined threshold* is unpersuasive because the Examiner relies on Zhang for teaching this feature of the limitation. *See* Ans. 6 ("Zhang teaches providing an electronic notification regarding one or more users whose level of relevancy, *i.e.* 'similarity measure,' satisfies a predetermined threshold, *i.e.* 'minimum-cost.'").

Appellant acknowledges that "Zhang teaches extracting fashion preferences of a user from fashion related information that can be in the form of an image or video, clustering users based on similarities in their fashion preferences, ranking users based on similarity measures of their fashion preferences, identifying emerging fashion trends that may correspond to fashion preference clusters, and alerting marketers to emerging consumer segments created by market research applications." Reply Br. 9. Yet, Appellant argues "nowhere does Zhang teach or suggest that an alert provided to marketers indicates that an emerging fashion trend applies to users of a predetermined group whose level of relevancy of a particular object satisfies a predetermined threshold." *Id.* at 10. This argument is unpersuasive of Examiner error because Appellant fails to explain why the Examiner's finding of similarity measure (i.e., minimum cost) in Zhang as suggesting a predetermined threshold is erronoues, and Appellant's argument fails to establish an insufficiency in the combined

teachings of the references, because the Examiner relies on the combined teachings of Spivack and Zhang in rejecting this contested limitation. Nonobviousness cannot be established by attacking the references individually when the rejection is predicated upon a combination of prior art disclosures. *See In re Merck*, 800 F.2d at 1097.

Accordingly, we sustain the rejection of independent claim 1 as unpatentable over Spivack and Zhang, and claims 2–7 and 9–21 which fall with claim 1.

DECISION

The Examiner's rejection under 35 U.S.C. § 103 is affirmed.

Decision summary:

Claims Rejected	**35 U.S.C. §**	**Basis**	**Affirmed**	**Reversed**
1–7, 9–21	103	Spivack, Zhang	1–7, 9–21	

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

AFFIRMED