

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SNAP INC.,
Petitioner,

v.

YOU MAP INC.,
Patent Owner.

IPR2022-00568
Patent 10,616,727 B2

Before KALYAN K. DESHPANDE, *Vice Chief Administrative Patent Judge*, PATRICK M. BOUCHER and JASON M. REPKO, *Administrative Patent Judges*.

REPKO, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

Snap Inc. (“Petitioner”) filed a petition requesting *inter partes* review of claims 1–20 of U.S. Patent No. 10,616,727 B2 (Ex. 1001, “the ’727 patent”). Paper 2 (“Pet.”, “Petition”). You Map Inc. (“Patent Owner”) filed a Preliminary Response. Paper 9 (“Prelim. Resp.”).

The standard for instituting an *inter partes* review “is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a). For the reasons discussed below, the Petition meets this standard. Thus, we institute an *inter partes* review.

A. Related Matters

According to the parties, *You Map, Inc. v. Snap Inc.*, No. 1:20-cv-00162-CFC (Del.) is a related matter. Pet. x; Paper 6, 1 (Mandatory Notices).

B. The ’727 Patent

The ’727 patent relates to displaying social-network posts on a map. Ex. 1001, 3:32–41. To fit numerous posts on a mobile device’s display, the disclosed system displays some posts more prominently than others. *Id.* at 3:42–45. For example, some posts may be larger or a different color than others. *Id.* at 3:52–58. Also, the system may aggregate multiple posts. *Id.* at 12:56–57.

Figure 3C, below, shows an example embodiment.

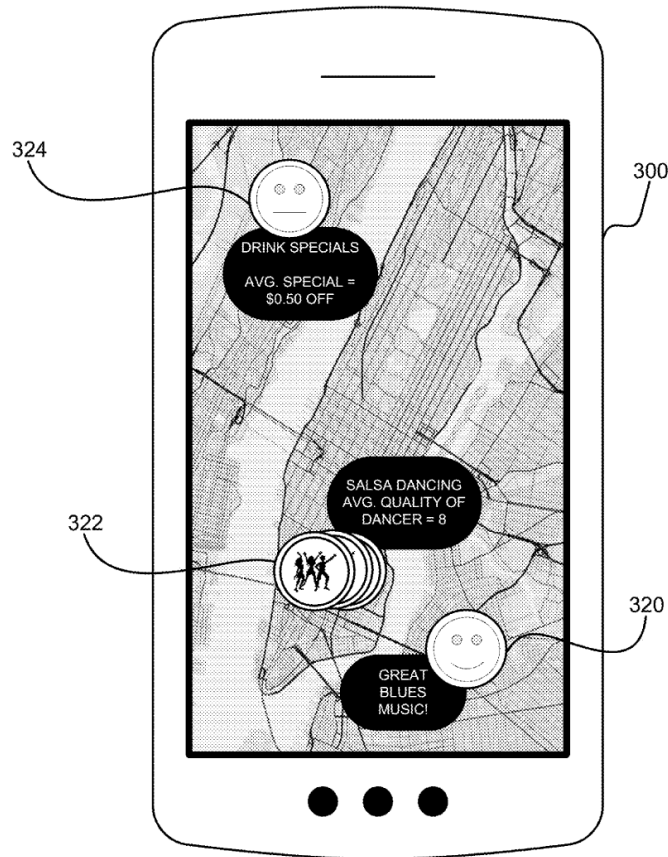


Figure 3C, above, shows client device 300 with symbols 320, 322, and 324 on a map. *Id.* at 11:23–28. Symbols 320, 322, and 324 correspond to social-media posts. *Id.* The symbols may represent an aggregate of multiple posts, and a post’s text may be altered to create the displayed text. *Id.* at 11:23–31. The decision to display a post can be based on rankings associated with particular attributes. *Id.* at 11:41–47. For example, in the screen shown in Figure 3C, above, posts about drink specials, salsa dancing, and blues music are displayed, whereas those about Broadway shows are not. *Id.* at 11:47–51.

The system displays the posts in response to a request from a client device. *Id.* at 15:10–12; 16:6–22. The request may include information about the client device’s display and its geographic location, among other things. *Id.* at 15:12–15. The system uses this information to filter recent social-media posts for display. *Id.* at 15:23–26.

C. Claims

Of the challenged claims, 1, 11, and 20 are independent. Claim 1 is reproduced below:

1. A system for providing location information on a social network, comprising:

a computer processor; and

a social mapping module executing on the computer processor and configured to enable the computer processor to:

receive, from a client device, a request for one or more social media posts, wherein the request includes screen attribute information about a display of the client device, geographic location information, and an identification of a requesting account of the social network;

identify a set of temporally recent social media posts based on the screen attribute information and the geographic location information;

apply, by the computer processor, two sets of grouping criteria to the set of social media posts to generate a suggested group, wherein:

the suggested group is a subset of the set of social media posts, and

applying the two sets of grouping criteria comprises:

generating a combined ranking based on:

ranking each social media post of the set of social media posts according to a first customized score for each social media post, wherein the first customized score is based on a first set of preference factors, corresponding to the requesting account, applied to a general score of each social media post, and

ranking each social media post of the set of social media posts according to a second customized score for each social media post, wherein the second customized score is based on a second set of preference factors, corresponding to the requesting account, applied to the general score of each social media post, and

selecting, based on the combined ranking, the subset of the set of social media posts for inclusion in the suggested group, wherein the selecting comprises excluding at least one social media post of the set of social media posts from inclusion in the suggested group based on the combined ranking; and

provide, in response to the request, the suggested group for display by the client device.

Ex. 1001, 21:39–22:17.

D. Evidence

Name	Reference	Exhibit No.
Feldman	US 2015/0334077 A1, published Nov. 19, 2015	1005
Jackson	US 8,606,792 B1, issued Dec. 10, 2013	1006
Rush	US 2016/0055250 A1, published Feb. 25, 2016	1007

Petitioner also relies on the Declaration of David H. Williams. Ex. 1003 (“Williams Decl.”).

E. Asserted Grounds

Petitioner challenges claims 1–20 on the following grounds. Pet. 1.

Claims Challenged	35 U.S.C. §	Reference(s)/Basis
1–11, 13–15, 17–20	103	Feldman, Jackson
12, 16	103	Feldman, Jackson, Rush

II. ANALYSIS

A. Level of Ordinary Skill in the Art

Petitioner asserts that a person of ordinary skill in the art “would have had a bachelor’s degree in electrical engineering, computer science, or a related field, plus two years’ work or research experience with location-based content delivery and/or visualization.” Pet. 5 (citing Ex. 1003 ¶¶ 19–22). Petitioner also asserts that “[m]ore education could substitute for experience and vice versa.” *Id.*

In its Preliminary Response, Patent Owner does not contest Petitioner’s proposed level of ordinary skill in the art.

In this Decision, we apply Petitioner’s proposed definition, which appears to be consistent with the level of skill reflected in the asserted references. If Patent Owner proposes a different level of ordinary skill in the

art in its Response, the parties are encouraged to explain how the differences affect the obviousness analysis.

B. Claim Construction

We use the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b), including construing the claim in accordance with the ordinary and customary meaning of the claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent. 37 C.F.R. § 42.100(b). We apply the claim construction standard from *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc).

Under the *Phillips* standard, claim terms are generally given their ordinary and customary meaning as would be understood by one with ordinary skill in the art in the context of the specification, the prosecution history, other claims, and even extrinsic evidence. *Id.* at 1312–17. But extrinsic evidence is “less significant” than the intrinsic record. *Id.* at 1317. The specification is the “single best guide” to a disputed term’s meaning. *Id.* at 1315. It “may reveal a special definition given to a claim term” or “an intentional disclaimer, or disavowal, of claim scope.” *Id.* at 1316.

Petitioner contends “[n]o claim term herein requires exact outer-boundary construction, because the prior art meets the claim terms under any reasonable interpretation.” Pet. 6.

Patent Owner contends that “at least two claim terms must be construed to facilitate any comparison of the claims with the prior art combination used by Petitioner and institution of this proceeding should be denied for this reason alone.” Prelim. Resp. 14. Patent Owner, however, only proposes a construction for one claim term: “screen attribute information about a display of the client device.” *See id.* at 18–23. In particular, Patent

Owner asserts that “screen attribute information about a display of the client device” means “information about the screen or display of the client device that defines, determines and/or specifies how content is displayed on the screen or display in response to the request.” *Id.* at 19.

That is, Patent Owner’s construction restates the claim language (“information about the screen or display of the client device”) and further limits the feature to information that “defines, determines and/or specifies how content is displayed on the screen or display in response to the request.” *See id.* Patent Owner argues that, “[a]s claimed, ‘screen attribute information’ is explicitly tied to ‘a display of the client device,’” and “the claim also recites that the identification of ‘a set of temporally recent social media posts’ is, in part, ‘based on the screen attribute information.’” *Id.* In Patent Owner’s view, this means that “the claim language itself leads to the conclusion that the screen attribute information enables the system to define or specify or determine what is shown on the display of the client device using information about the display itself.” *Id.* Patent Owner further argues that the written description further supports its construction. *Id.* at 20–22.

We need only construe terms that are in controversy, and only to the extent necessary to resolve the controversy. *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (citing *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

At this stage and on this record, we disagree with Patent Owner’s claim construction to the extent that it excludes the disclosed embodiment that uses areas of a map as screen attribute information:

For example, the social mapping module 106 may receive a request from the client device 300. The request may include

screen attribute information about the display 305 of the client device. *For example*, the size of the display 305, the resolution of the display 305, *areas of a map displayed on the display 305*, etc.

Ex. 1001, 15:13–15 (emphasis added). We emphasize “For example” here because it indicates that “areas of a map” are screen attribute information. *Id.* Area is listed together with the device’s size and resolution. *Id.* Thus, at this stage and on this record, we disagree with Patent Owner that “‘areas of a map displayed on the display’ is a function of the ‘screen attribute information about a display of the client device’ not the other way around.” Prelim. Resp. 30.

Similarly, other parts of the patent’s written description that are quoted by Patent Owner make no distinction between physical attributes of the device itself and other parameters similar to area. For example, the patent lists attributes such as “pan location” and “zoom level” alongside the screen’s size and shape:

In one or more embodiments, screen attributes of a client device may be determined. . . Screen attributes may include, but are not limited to: a size and shape of a screen, *a current zoom level*, *a pan location*, an availability of screen space, a viewing angle, an amount of transparency of a screen, and/or an amount of screen space.

Ex. 1001, 7:8–13 (emphasis added), *quoted in* Prelim. Resp. 20–21.

According to the patent, an area is an example of pan location:

In one or more embodiments, transforming the visualization of content of a post dependent on a user’s screen information can involve the following: a user’s viewport or a user’s desired viewpoint, a user’s zoom level, *a user’s pan location (e.g., an area where they have moved their view above)*, and/or a user’s screen dimensions.

Id. at 7:21–26 (emphasis added), *quoted in* Prelim. Resp. 21.

Dependent claim 6, which incorporates all limitations of the independent claim, further recites “wherein the screen attribute information specifies a geographic map region displayed on the client device.”

Id. at 22:35–37. During trial, the parties are invited to discuss whether claim 6 is consistent with Patent Owner’s construction and corresponding arguments.

We also disagree, at this stage, that a map area cannot be used to determine what is shown on a display. Prelim. Resp. 31. For example, the system in the ’727 patent receives “a user’s viewpoint which may correspond to a physical region on the map.” Ex. 1001, 17:31–32. This “actual real-life piece of the map” can be a geographic region that falls within three or more geographic coordinates. *Id.* at 17:32–36. From the current record, we determine that, in this embodiment, the area “defines, determines and/or specifies how content is displayed on the screen or display in response to the request” for at least the reason that the system uses the area to determine which posts the fall within the region and which posts are then displayed on a map.¹ *Id.* at 17:25–53.

Throughout the Preliminary Response, Patent Owner points to the device’s screen size and shape as examples of screen attributes. *See, e.g.*, Prelim. Resp. 20–21. Yet those values are only exemplary. *See, e.g.*, Ex. 1001, 7:8–13 (“Screen attributes may include, but *are not limited to*: a size and shape of a screen . . .”) (emphasis added). Patent Owner also cites Figure 3A as support for its argument that the area-based embodiments should be excluded from the scope of claim 1. Prelim. Resp. 22–23. But that

¹ Our determination is preliminary. We invite the parties to discuss during trial whether this example falls within the scope of claim 1.

too is only “exemplary.” Ex. 1001, 2:57–58. Thus, at this stage and on this record, we disagree with Patent Owner’s arguments about screen attribute information (Prelim. Resp. 20–22) for the additional reason that the relied-upon embodiments are non-limiting and do not exclude the examples that use area. *See, e.g.*, Ex. 1001, 7:21–26, 15:13–15;

Thus, at this stage and on this record, we determine that “screen attribute information about the display,” as claimed, encompasses areas of a map displayed on the display. We need not further construe the claim at this stage. *See Nidec*, 868 F.3d at 1017. Our determination, though, is preliminary. During trial, the parties are invited to address the scope of “screen attribute information about the display.”

C. Obviousness over Feldman and Jackson

Petitioner asserts that claims 1–11, 13–15, and 17–20 are unpatentable as obvious over Feldman and Jackson. *See* Pet. 6–64.

1. *Feldman (Ex. 1005)*

Feldman relates to searching social-network posts within a specified map area. Ex. 1005 ¶ 13. Figure 3B, below, shows an example of Feldman's user interface. *Id.*, Fig. 3B.

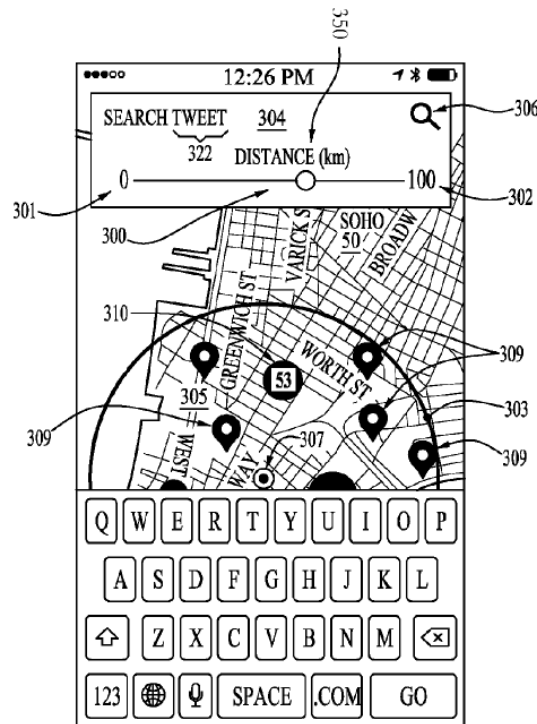


Fig. 3B

Figure 3B, above, shows a user interface displaying map 50 and search keyword 322. *Id.* ¶ 46. In the interface, slider 300 controls the size of perimeter 303 on the map. *Id.* Perimeter 303 encircles search area 305, which designates the area where posts can be found. *Id.* ¶¶ 46, 48, 50. In the example above, locations 309 within 303 indicate where information or metadata is posted. *Id.* ¶¶ 32, 54.

2. *Jackson (Ex. 1006)*

Jackson's system recommends posts to users of a micro-blogging service. Ex. 1006, 1:34–36. In a micro-blogging service, users submit short

text or multimedia posts. *Id.* at 7:64–66. To receive new posts, other users typically must “follow” the author of the posts. *See id.* at 8:2–5. Jackson’s system, though, recommends posts to users that do not follow the author—i.e., non-subscribers. *Id.* at 8:62–9:3. To determine whether to recommend a post to a non-subscriber, Jackson calculates a “global score” based on weighted factors. *Id.* at 9:17–28.

3. *Claim 1*

Petitioner asserts that its Feldman-Jackson combination teaches or suggests all limitations of claim 1. *See* Pet. 17–53. According to the Petition, it would have been obvious to incorporate Jackson’s recommendation techniques in Feldman’s system. *See, e.g., id.* at 14.

Patent Owner argues that Feldman does not teach “screen attribute information about a display of the client device,” and Jackson does not teach the recited identification, ranking, combination, and recommendation steps. Prelim. Resp. 24–45. We disagree with Patent Owner’s arguments for the reasons discussed in Sections II.C.3.b and f.

As for the remaining limitations not specifically addressed in Patent Owner’s Preliminary Response, Petitioner has sufficiently shown that the proposed combination teaches or suggests the recited subject matter, and has articulated a sufficient reason for combining Feldman and Jackson, for the reasons that follow.

a. System and Processor

Claim 1 recites, in part, “A system for providing location information on a social network comprising: a computer processor.” Ex. 1001, 21:39–41.

Petitioner asserts that Feldman’s “geopost” is a social-media post with “information or metadata” that includes a location. Pet. 17 (citing Ex. 1005 ¶ 32; Williams Decl. ¶ 93). According to the Petition, Feldman’s “map-

related” system searches a social network for social posts within a specified area on a map, and “may respond to a user request with ‘a plurality of geoposts’ within an area specified by a map displayed on the user’s device.” *Id.* (citing Ex. 1005 ¶¶ 32, 82; Williams Decl. ¶ 93).

As for the processor, Petitioner asserts that “the server with ‘precompiled executions’ running ‘in memory’ has a computer processor that executes the ‘precompiled’ software implementing the functionality of Feldman’s ‘map-related remark system with social geographic search.’” *Id.* at 18 (citing Williams Decl. ¶ 95). Alternatively, Petitioner asserts that the recited processor would have been obvious. *Id.* at 18–19 (citing Ex. 1005 ¶ 99; Williams Decl. ¶ 96).

Patent Owner does not present arguments that are specifically directed to Petitioner’s arguments and evidence about this subject matter. *See* Prelim. Resp.

At this stage and on this record, Petitioner’s assertions about the system recited in the preamble and processor (Pet. 17–19) are sufficiently supported. For example, the cited passages from Feldman describe “physical servers to provide precompiled executions.” Ex. 1005 ¶ 99. Also, Feldman explains that “geopost” refers to posting information including location. *Id.* ¶ 32. Feldman’s system displays these geoposts. *Id.* ¶ 82. Thus, on this record and at this stage, we determine that Petitioner has sufficiently shown that Feldman teaches or suggests the preamble and recited processor. *See id.* at 17–19.

b. Screen Attribute Information

Claim 1 recites, in part, “a social mapping module executing on the computer processor and configured to enable the computer processor to: receive, from a client device, a request for one or more social media posts,

wherein the request includes screen attribute information about a display of the client device” Ex. 1001, 21:42–50.

Petitioner asserts that, under the Feldman-Jackson combination, software provides social-network posts on a map display, which is the recited “social mapping module.” Pet. 20 (citing Williams Decl. ¶ 99). As for the module’s receiving function, Petitioner asserts that Feldman’s module receives search requests that include perimeter 303. *Id.* at 22. Petitioner asserts that Feldman’s perimeter 303 is “screen attribute information” because “Feldman’s perimeter defines areas 305 which are ‘areas of a map displayed on the display.’” *Id.* (citing Ex. 1001, 15:12–15; Williams Decl. ¶ 104).

Feldman’s Figure 6, below, shows a user interface illustrating parameter 303.

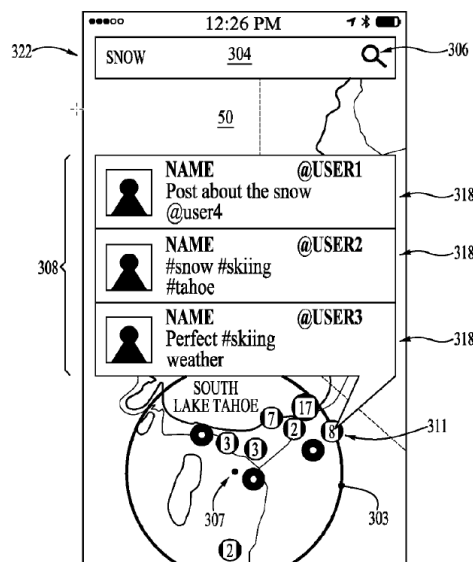


FIG. 6

Figure 6, above, shows parameter 303 as a circle surrounding posts. Ex. 1005 ¶ 50. “Area 305 can limit the interactive areas by which posts can be discovered within the perimeter 303.” *Id.*, cited in Pet. 22.

Patent Owner argues that Feldman's parameter 303 is not "information about a display of a client device," as required by the claim. Prelim. Resp. 24. Patent Owner argues that search area 305 is determined and defined only by perimeter 303. *Id.* at 24–25. In Patent Owner's view, Feldman's search area 305 does not depend on "whether it is visually displayed on the screen of the device or on any attribute of the display of the client device." *Id.* at 27. To illustrate this, Patent Owner points to Feldman's Figure 7, below. *Id.*

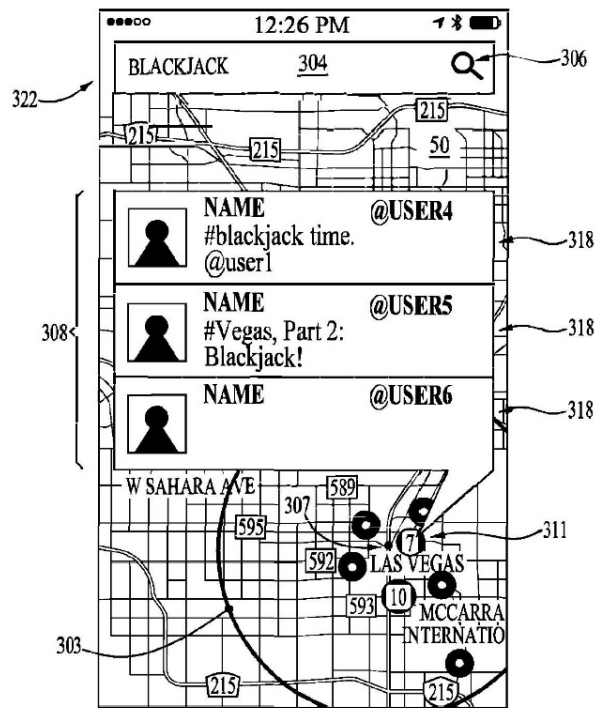


Fig. 7

Referring to Figure 7, above, Patent Owner asserts that a part of search area 305 may be moved off screen and not displayed. *Id.* at 27 (citing Ex. 1005, Fig. 7). Patent Owner argues that perimeter 303 and search area 305 are independent of the client device's display because Figure 7 "shows that significant portions of search area 305 and perimeter 303 are not displayed on the screen of the device." *Id.* at 28.

Patent Owner argues that Feldman’s user defines the perimeter before conducting a search. *Id.* at 28–29 (citing Ex. 1005 ¶¶ 86, 87, 89–91).

According to Patent Owner, these user-defined perimeters are not information about the device’s display:

This single data point, the radius 350 set by the user (step 802) prior to conducting a search, contains no information “about a display of the client device” and certainly does not constitute “information about the screen or display of the client device that defines, determines and/or specifies how content is displayed on the screen or display in response to the request.” . . . neither Feldman’s radius 350 – the information of the keyword search that identifies the search perimeter 303 – nor the perimeter 303 based on radius 350 and geolocation 307 comprise “screen attribute information” as recited in the Challenged Claims.

Id. at 29–30.

At this stage and on this record, we disagree with Patent Owner—even under its own proposed construction of the recited “screen attribute information”: “information about the screen or display of the client device that defines, determines and/or specifies how content is displayed on the screen or display in response to the request.” *Id.* at 19, 21. Rather, Feldman’s perimeter 303 defines an area where posts can be discovered. *See* Ex. 1005 ¶ 50, *cited in* Pet. 22. Even if a part of the area is not displayed, perimeter 303 nevertheless specifies at least some of the posts that will be displayed. *See id.* Thus, we determine, at this stage and on this record, that parameter 303 specifies how Feldman’s content—e.g., a discoverable post—is displayed on the screen or displayed in response to the user’s search request. *See* Pet. 22.

For similar reasons, we disagree that the claim is limited to the alternative embodiments that calculate the display area from the display’s size and resolution. *See* Prelim. Resp. 30–31. In Patent Owner’s view, “the

‘area of a map displayed on a display’ is a function of the ‘screen attribute information about a display of the client device’ and not the other way around.” *Id.* at 30. Patent Owner argues that “‘areas of a map displayed on the display’ (’727 Patent, 15:12) cannot be used to determine ‘what is shown on a display, including . . . a map (’727 Patent, 7:12-14).’” *Id.* at 30–31. In Patent Owner’s view, “the amount of a map displayed on a display cannot be used to determine the amount of the map displayed on the display.” *Id.* at 30. Patent Owner argues that Petitioner’s interpretation of the map-area embodiment is “circular” and unsupported by “the entirety of the ’727 Patent and its Specification.” *Id.* at 31–32.

We disagree with Patent Owner’s argument for the reason discussed in Section II.B on claim construction. In particular, the ’727 patent explains that map area is an example of screen attribute information:

For example, the social mapping module 106 may receive a request from the client device 300. The request may include screen attribute information about the display 305 of the client device. *For example*, the size of the display 305, the resolution of the display 305, *areas of a map displayed on the display 305*, etc.

Ex. 1001, 15:13–15 (emphasis added). At this stage, we read this passage to mean that the screen attribute information can include an explicit definition of one or more areas to be displayed. *Id.*; *supra* § II.B. In particular, the phrase “For example” here indicates that alternative embodiments may use the display’s size and resolution as “screen attribute information.” *See id.*

We see nothing in this embodiment or in the claim itself that excludes partial areas, such as those in Feldman’s Figure 7. *See Prelim. Resp.* 27–28. Instead, the use of the plural noun “areas” indicates that the screen attribute information may include multiple areas. Ex. 1001, 15:13–15. If multiple

areas were displayed, each area would occupy only a part of the screen. *See id.* Thus, we see no reason at this stage why Feldman’s Figure 7 embodiment would be a basis for concluding that parameter 303 is not screen attribute information. *See* Pet. 22.

In the Figure 7 embodiment, an area’s geometric properties could be used to select a subset of content for display by defining a boundary on the map. *See* Pet. 22. Thus, even under Patent Owner’s construction, the preliminary record indicates that part of an area of a map can be “information about the screen or display of the client device that defines, determines and/or specifies how content is displayed on the screen or display in response to the request.” Prelim. Resp. 33.

Thus, at this stage and on this record, Petitioner has sufficiently shown that the Feldman-Jackson combination teaches or suggests the module configured to receive a request that “includes screen attribute information about a display of the client device.” *See id.*

c. Geographic Location Information

Claim 1 recites, in part, “receive, from a client device, a request for one or more social media posts, wherein the request includes . . . geographic location information” Ex. 1001, 21:45–50.

Petitioner asserts that Feldman’s request includes geographic location information. Pet. 23. In particular, Petitioner asserts that search command 306 includes designated geolocation 307—a location on a map. *Id.* (citing Ex. 1005, ¶¶ 51, 62; Williams Decl. ¶ 106). Petitioner, alternatively, asserts that Feldman’s designated geolocation 307 can be the user’s GPS location, which can be used to search for posts. *Id.* at 23–24 (citing Ex. 1005 ¶¶ 39, 89; Williams Decl. ¶ 107). Petitioner asserts that it would have been obvious

to incorporate the user's GPS location in "posts near me" feature in Jackson. *Id.* at 24 (citing Ex. 1006, 15:30–33; Williams Decl. ¶ 108; Ex. 1008 ¶ 26).

Patent Owner does not present arguments that are specifically directed to Petitioner's arguments and evidence about this subject matter. *See* Prelim. Resp.

At this stage and on this record, Petitioner's assertions about the recited geographic location information (Pet. 23–24) are sufficiently supported. For example, Feldman's Figure 3C shows perimeter 303B around designated geolocation 307 covering area 30 on map 50, as in Petitioner's first rationale. Ex. 1005 ¶ 62, *cited in* Pet. 23. "Search command 306 can send keyword input 322, and designated geolocation 307 by selecting to activate the search command 306." *Id.*

As for the second rationale, Feldman also discloses "[s]et published search location 806 can correspond to a user's mobile device GPS location." *Id.* ¶ 89, *cited in* Pet. 23–24. Similarly, Jackson's interface has a "Posts Near Me" tab that includes posts from nearby users. Ex. 1006, 15:30–33, *cited in* Pet. 24. Petitioner sufficiently explains why one of ordinary skill in the art would have combined these teachings (*see* Pet. 23–24), which is not disputed at this stage (*see* Prelim. Resp.).

Thus, at this stage and on this record, Petitioner has sufficiently shown that the Feldman-Jackson combination teaches or suggests a request for one or more social media posts, that includes geographic location information, as claimed. *See id.*

d. Identification

Claim 1 recites, in part, "receive, from a client device, a request for one or more social media posts, wherein the request includes . . . an

identification of a requesting account of the social network.” Ex. 1001, 21:45–50.

Petitioner asserts that Feldman’s request also includes the recited identification of a requesting account. Pet. 25. Petitioner asserts that Feldman’s user provides a “username, password, IP address, cookie, session ID, client ID, or any combination thereof” as authorization information to view particular posts. *Id.* (citing Ex. 1005 ¶¶ 77, 86; Williams Decl. ¶ 11). Petitioner also asserts that providing account identifying information would have been obvious “because this feature was well-known and taught by Jackson, which requires a user to log into the service to view posts, and enables Jackson’s recommendation techniques to create a user-specific recommendation.” *Id.* (citing Ex. 1006, 12:1–17, Williams Decl. ¶ 112).

Patent Owner does not present arguments that are specifically directed to Petitioner’s arguments and evidence about this subject matter. *See* Prelim. Resp.

At this stage and on this record, Petitioner’s assertions about the recited identification (Pet. 25) are sufficiently supported. For example, Feldman discloses using “authentication inputs”:

Geopost 318 can be authorized to be published publicly or privately on social network corresponding to social network identifier 506. By way of non-limiting illustration, authentication inputs can be selected from: username, password, IP address, cookie, session ID, client ID, or any combination thereof, encrypted or non-encrypted. Providing a prebuilt application protocol can send authentication inputs to a selected or integrated third party social network hosted elsewhere, not running on the server, initially receiving inputs from the mobile client device.

Ex. 1005 ¶ 86, *cited in* Pet. 25. Similarly, Jackson teaches that a user must log into messaging interface 100 using a username and password. Ex. 1006, 12:1–17, *cited in* Pet. 25.

Thus, at this stage and on this record, Petitioner has sufficiently shown that the Feldman-Jackson combination teaches or suggests a request for one or more social media posts, that includes an identification of a requesting account of the social network, as claimed. *See id.*

e. Identify Social Media Posts

Claim 1 recites, in part, “identify a set of temporally recent social media posts based on the screen attribute information and the geographic location information.” Ex. 1001, 21:51–53.

As discussed above, Petitioner asserts that Feldman’s perimeter 303 corresponds to the recited screen attribute information and designated geolocation 307 corresponds to the recited geographic information. *Supra* §§ II.C.3.b & c. According to the Petition, Feldman’s search request includes keyword input 322, geographic location (geolocation 307), and screen attribute information (perimeter 303). Pet. 25–26. Petitioner asserts that, based on the search request, the Feldman-Jackson combination performs geolocation-keyword searching of posts with “content related to the keyword(s) and posted within an area specified by the request’s geographic location information.” *Id.* at 26 (citing Williams Decl. ¶ 114). As for the recited “temporally recent” posts, Petitioner asserts that Jackson weights posts “by time so that only recent posts are displayed.” *Id.* at 27 (citing Ex. 1006, 9:61–67, 15:30–33).

Apart from the arguments addressed in Section II.C.3.b about screen attribute information, Patent Owner does not present arguments that are

specifically directed to Petitioner’s assertions and evidence about this subject matter. *See* Prelim. Resp.

At this stage and on this record, Petitioner’s assertions about the temporally recent posts are sufficiently supported. *See* Pet. 25–27. For example, Feldman teaches posts displayed “in reverse-chronological order.” Ex. 1005 ¶ 82, *cited in* Pet. 26. Also, Jackson teaches displaying “only recent posts. Ex. 1006, 15:30–33, *cited in* Pet. 27. At this stage and on this record, we determine that Petitioner’s articulated reasoning about combining these and the other cited teachings “to improve user experience” has rational underpinning and is sufficiently supported by the cited evidence. *See* Pet. 27.

f. Combined Ranking

The relevant part of claim 1 is reproduced below with Petitioner’s labels:

[1E] apply, by the computer processor, two sets of grouping criteria to the set of social media posts to generate a suggested group,

[1F] the suggested group is a subset of the set of social media posts, and

[1G] applying the two sets of grouping criteria comprises:

[1H] generating a combined ranking based on:

[1H1] ranking each social media post of the set of social media posts according to a first customized score for each social media post, wherein the first customized score is based on a first set of preference factors, corresponding to the requesting account, applied to a general score of each social media post, and

[1H2] ranking each social media post of the set of social media posts according to a second customized score for each social media post, wherein the second customized score is based on a second set of preference factors,

corresponding to the requesting account, applied to the general score of each social media post,

[1I] selecting, based on the combined ranking, the subset of the set of social media posts for inclusion in the suggested group, wherein the selecting comprises excluding at least one social media post of the set of social media posts from inclusion in the suggested group based on the combined ranking.

Ex. 1001, 21:54–22:14 (reformatted with Petitioner’s labels); *see also* Pet. 78–79 (reproducing claim 1 with labels); Prelim. Resp. 3 n.1 (stating that the same labels are used in the Preliminary Response).

To address these limitations, Petitioner asserts that the ’727 patent describes multiple ways that a customized score can be based on preference factors applied to a general score. Pet. 30 (citing Ex. 1001, 63–66).

According to the Petition, a weighted general score can be created from preference factors, or the general score’s components can be weighted using those factors. *Id.* at 30–31 (citing Ex. 1001, 12:1–17, 12:66–13:8, 13:17–19, 15:63–66, 16:6–13, 17: 9–24; Williams Decl. ¶¶ 122, 123).

Petitioner asserts that the Feldman-Jackson combination generates a combined ranking, as recited in [1H], using the same preference factors and in the same way that the patent describes. *Id.* at 31 (citing Williams Decl. ¶ 124). Petitioner argues that this combination meets the selecting step recited in [1I] and the two grouping criteria recited in [1G]. *Id.* Petitioner asserts the Feldman-Jackson combination uses the combined ranking to select posts for inclusion in the “suggested group” recited in [1E], [1F], and [1I]. *Id.* at 52.

As for the combined ranking in [1H], Petitioner asserts that Jackson weights a global score and the score’s “signals” based on multiple user-specific factors. *Id.* at 30–53. The “signals” are “data from different

sources.” Ex. 1006, 18:40–19:23. For example, Jackson has a “comments signal” for a post’s comments and a “likes signal” for post’s likes. *Id.*

The Petition’s first rationale focuses only on the weighted global score, not the weighted signals. Pet. 31–43. In the first rationale, Petitioner asserts that the Feldman-Jackson combination meets the two recited ranking steps “by ranking according to customized scores based on any two (or more) of social-network distance, geographic distance, and various other preference factors that Jackson describes.” *Id.* at 42. According to the Petition, a person of ordinary skill in the art “would have understood Jackson to teach that any combination of weighting criteria may be used together.” *Id.* (citing Williams Decl. ¶ 147). Petitioner asserts that Jackson recommends posts based on a ranking of the scores. *Id.* at 43 (citing Ex. 1006, 5:53–58; 9:54–67; 13:17–22). Petitioner asserts that “[t]he obvious way to implement Jackson’s teaching that multiple weighting criteria can be used together would have been to combine rankings based on those criteria in determining which posts to recommend to the user, meeting [1H].” *Id.*

The Petition’s second rationale focuses on Jackson’s signals: “An alternative way the Feldman/Jackson Combination meets elements [1H], [1H1], and [1H2] is by weighting the ‘signals’ used to create a post’s overall score.” *Id.* (citing Williams Decl. ¶ 150). According to the Petition, “[i]n the Feldman/Jackson Combination, weighting the signals used to create the scores creates customized signals based on social-network distance, geographic distance, and shared interests, any two of which when used together generate a ‘combined ranking’ as [1H] recites.” *Id.* at 51. Petitioner asserts that “Jackson also teaches that weighting of the signals can be used with weighting of its ‘global score.’” *Id.* at 52. As with the first rationale,

Petitioner asserts that, under the second rationale, “[t]he obvious way to implement Jackson’s teaching that multiple weighting criteria can be used together would have been to combine rankings based on those criteria in determining which posts to recommend to the user, meeting [1H].” *Id.*

As for the selection recited in [1I], Petitioner explains that, when using Jackson’s combined-ranking techniques in Feldman to recommend posts, “the ‘modified score’ or ‘personal score’ needs to exceed a certain threshold (or percentile) to be recommended; and posts with scores that are too low will not be recommended.” *Id.* at 53 (citing Ex. 1006, 1:51, 3:57–61, 9:61–67, 19:54–61, 22:4–15; Williams Decl. ¶ 173). Petitioner asserts that, in this way, the Feldman-Jackson combination selects posts for inclusion in the suggested group, as recited in the claim. *Id.*

Patent Owner disagrees and argues that, for several reasons, Jackson does not rank the posts in the way that the method recited in claim 1 does. Prelim. Resp. 40–41. Patent Owner argues that, to calculate the modified score, Jackson’s system weighs a social network distance “against either the global score for the post or any combination of signals 512-518 used to determine the global score.” *Id.* at 42–43 (emphasis in original). According to Patent Owner, “Jackson’s ‘modified score’ recommendation engine or process simply fails to teach the ’727 Patent’s identification, ranking, combination and recommendation process steps.” *Id.* at 43. Patent Owner argues that, for example, the claimed method is not described in Jackson’s Figures 4A and 4B. *Id.* at 41.

Patent Owner’s argument, though, does not squarely address Petitioner’s rationale that is based on using multiple weighting criteria to determine which posts to recommend. *See* Pet. 43 (the global-score rationale), 52 (the signal rationale). For example, Petitioner asserts that

“customized signals based on social-network distance, geographic distance, and shared interests, *any two* of which when used together generate a ‘combined ranking.’” *Id.* at 51 (emphasis added). We emphasize “any two” here because Patent Owner’s argument (Prelim. Resp. 42–43) focuses on comparing social-network distance, but Petitioner’s obviousness rationale is based on using two components of the combined ranking (*see* Pet. 51), for example.

Patent Owner also argues that the basis for Jackson’s personal-score recommendation process is “*either* (i) modifying the global score of the post based on the social network graph or distance between the authoring user and the non-subscribing user, *or* (ii) generating a composite score among the non-subscribing users and all other users connected, directly or indirectly, to the non-subscribing user.” *Id.* at 44 (emphasis in original). According to Patent Owner, in neither case does Jackson teach the recited “identification, ranking, combination and recommendation process steps.” *Id.* That is, Patent Owner here focuses on Jackson’s global and composite scores. *Id.* We, however, disagree with this argument at this stage because it does not adequately address why using the two components of the combined ranking, as in Petitioner’s rationale (*see, e.g.,* Pet. 51), would not have been obvious.

For institution, we determine that the record at this stage adequately supports Petitioner’s assertions about using Jackson’s components. *See, e.g., id.* For example, “several factors” can be the basis for Jackson’s post score. Ex. 1006, 9:54–67. Jackson teaches ranking scores. *See, e.g., id.* at 9:64–67 (“[A] post may need to have a modified score that is highest ranking” for a time to be recommended.); 22:6–8 (discussing “a fixed percentile of the total number of posts.”). And Jackson teaches selecting a post “as a recommended post based on a high score,” and analyzes the “primary criteria that resulted

in the high score.” *Id.* at 16:46–50, *cited in* Pet. 51. In addition to the “primary criteria,” Jackson teaches “additional” and “secondary criteria,” such as subscribed users’ activity and location. *Id.* at 16:40–66, *cited in* Pet. 48.

These teachings lead us to favor Petitioner’s arguments over Patent Owner’s, at this stage, because the cited teachings show that Jackson proposes using a flexible approach, which may include multiple factors or criteria. *See id.* at 16:40–66. For example, Petitioner asserts that “Jackson explains that its ‘recommendation system 522’ can make its decision based on weighting the ‘global score’ or its signals, and that its ‘personal score 538’ can create weighted scores based on each.” Pet. 52 (citing Ex. 1006, 19:50–61, 22:63–23:3). As for the global score, Petitioner asserts that Jackson’s global score would be weighed based on secondary criteria, such as location, to arrive at a modified score:

[I]t would have been obvious to: (1) generate “global scores” for “every post” based on non-user-specific “primary criteria” (Jackson, 9:19-25, 16:45-56), (2) weight those global scores using “secondary criteria” relating to the user and poster sharing a geographic location (Jackson, 16:65-17:7) to generate “modified scores” for the posts, and (3) rank the posts according to the modified scores in the same way Jackson teaches in connection with the social-network-distance secondary criteria (Jackson, 9:54-67).

Id. at 37 (citing Williams Decl. ¶ 135). As for the signals, Petitioner asserts that a person of ordinary skill in the art “would have been motivated to weight the comments signal and/or likes signal based on any combination” of Jackson’s “secondary criteria.” *Id.* at 51–52 (citing Williams Decl. ¶ 169).

Patent Owner argues that “all of the factors or criteria (i.e., ‘signals 512-518’) used by the system and method of Jackson to generate a ‘global

score’ are not specific or relative to a non-subscribing user or the user’s account.” Prelim. Resp. 38 (citing Jackson, 19:50–54). In Patent Owner’s view, Jackson does not apply two sets of preference factors to the global score, “each in an independent and separate process.” *Id.* at 37.

We disagree with Patent Owner’s arguments, at this stage, for at least the reason that they focus on specific embodiments without adequately addressing the combination of criteria identified by Petitioner (Pet. 37, 52). In the passages from Jackson cited by Patent Owner, Jackson uses the language “[i]n some implementations” (Ex. 1006, 21:60–63, *cited in* Prelim. Resp. 43) or “[i]n some examples” (*id.* at 19:50–54, *cited in* Prelim. Resp. 38). This language suggests that we should not read the cited embodiments to be the only possible implementations. *See* Prelim. Resp. 37–39.

Rather, Jackson teaches that a “[a]ny combination of the signals” can be used to determine a post’s score. Ex. 1006, 18:48–49. According to Jackson, the signals may be based on “multiple different combinations of identified statistical information that relates to” post content (signal 512), an author’s reputation (signal 514), comments (signal 516), and likes (signal 518). *Id.* at 18:51–19:42. “Statistical data can be stored in a user statistics repository 542 and an activity statistics repository 520.” *Id.* at 18:44–46.

Thus, at this stage and on this record, Petitioner sufficiently shows that weighting Jackson’s general score or the general score’s component scores using the factors teaches or suggests identification, ranking, combination, and recommendation limitations recited in [1H1] and [1H2]. Pet. 31–52. Our determination is preliminary. During trial, the parties are invited to further discuss this issue.

g. Provide Suggested Group

Claim 1 recites, in part, “provide, in response to the request, the suggested group for display by the client device.” Ex. 1001, 22:15–16.

Petitioner asserts that both Feldman and Jackson disclose this limitation. Pet. 53–54 (citing Ex. 1003 ¶¶ 174; Ex. 1005 ¶¶ 49, 82, 91; Ex. 1006, 6:32–35).

Patent Owner does not present arguments that are specifically directed to Petitioner’s arguments and evidence about this subject matter. *See* Prelim. Resp.

At this stage and on this record, Petitioner’s assertions about the recited identification (Pet. 25) are sufficiently supported. For example, Feldman’s “user can search for ‘snow’ as a possible search term 322 in the geosearch results 308 which can be a plurality of geoposts within the specified area circumscribed by perimeter 303.” Ex. 1005 ¶ 82, *quoted in* Pet. 54. Similarly, Jackson’s “recommended posts may be seamlessly integrated into a stream of posts that are provided for display to the user.” Ex. 1006, 6:32–35, *quoted in* Pet. 54.

h. Conclusion

Thus, based on the current record, Petitioner has established a reasonable likelihood that it will prevail in demonstrating that at least independent claim 1 would have been obvious over Feldman and Jackson. Because Petitioner has shown a reasonable likelihood of success in showing that claim 1 is unpatentable, we institute on all grounds and all claims challenged in the Petition.

4. Remaining Independent Claims

Claims 11 and 20 recite similar limitations to those in claim 1. Relying in part on the analysis of claim 1, Petitioner analyzes the other

independent claims in view of Feldman and Jackson. Pet. 63. According to Petitioner, “[o]ther than being directed to a method rather than a system” independent claim 11 is “substantially identical” to claim 1 and is “met by the Feldman/Jackson Combination for the same reasons (where the method is met by the functions the system performs).” *Id.* Likewise, Petitioner argues that the processor recited in claim 20 “performs the same functionality as claim 1 ([1C]-[1J]), and is met by the Feldman/Jackson Combination for the reasons discussed” with respect to claim 1. *Id.* at 64. Petitioner asserts that the Feldman-Jackson combination teaches the “non-transitory computer-readable storage medium comprising a plurality of instructions” recited in the preamble. *Id.* (citing Ex. 1005 ¶ 99, Williams Decl. ¶ 200).

Patent Owner does not present separate arguments specific to the subject matter recited in claims 11 and 20. Prelim. Resp. 6 n.2.

We have reviewed Petitioner’s arguments and evidence for claims 11 and 20. *See* Pet. 63–64. For the reasons discussed in Section II.C.3 addressing claim 1 and our review of the arguments and evidence directed to subject matter not found in claim 1 that are specific to these claims, we determine that Petitioner’s showing is sufficient at this stage and on this record. *Id.*

5. *Dependent Claims*

We have reviewed Petitioner’s arguments and evidence for the dependent claims. *Id.* at 54–63. Patent Owner does not present separate arguments specific to the subject matter recited in claims 2–10, 13–15, and 17–19. *See* Prelim. Resp. 9. For the reasons discussed in Section II.C.3 addressing claim 1 and our review of the arguments and evidence directed to subject matter not found in claim 1 that are specific to the dependent claims,

we determine that Petitioner’s showing is sufficient at this stage and on this record. Pet. 54–63.

D. Obviousness over Feldman, Jackson, and Rush

1. Rush (Ex. 1007)

Rush relates to “generating real-time relevancy scores for social media posts.” Ex. 1007 ¶ 2. In particular, by “weighing important variables and then automatically ranking posts along those variables in real-time,” Rush enables a user “to identify relevant social media posts with which to engage through social media.” *Id.* ¶ 19.

2. Claim 12

Claim 12 recites, “The method of claim 11, wherein the set of temporally recent social media posts are removed from the suggested group for display based at least in part on a closing time of a business corresponding to the social media posts.” Ex. 1001, 23:36–39.

Petitioner asserts that “Rush teaches weighting and filtering posts based on distance of ‘the post 120’ or the ‘consumer 310 who made the post 120’ from ‘specific places (e.g. “nearest retailer”), and the availability status (open, closed) of the specific places.”” Pet. 68 (citing Ex. 1007 ¶ 65; Williams Decl. ¶ 29); *see also id.* at 72. According to Petitioner, a person of ordinary skill in the art “would have understood that ‘availability status’ changes from ‘open’ to ‘closed’ based on closing time of that ‘specific place[.]’” *Id.*

Petitioner asserts that one of ordinary skill in the art would have been motivated to add Rush’s criteria to the criteria used to weight social-media posts in the Feldman-Jackson combination. *Id.* at 69–71 (citing Williams Decl. ¶ 211). According to Petitioner, this combination “allows the user to be presented only with posts about locations that are currently open,” and

“posts about locations that are closed are removed from the set of temporally recent posts to which other criteria.” *Id.* at 72–73 (citing Williams Decl. ¶ 220).

Patent Owner does not present separate arguments specific to the Petitioner’s arguments and evidence about claim 12. *See* Prelim. Resp 9.

We have reviewed Petitioner’s arguments and evidence for claim 12. Pet. 65–73. We determine that Petitioner’s showing is sufficient at this stage and on this record. *Id.* For example, Rush calculates location sub-variables 363, including “the availability status (open, closed) of the specific places.” Ex. 1007 ¶ 65.

As for the obviousness rationale, Petitioner explains that it is desirable to filter posts about locations currently open:

A POSA would have understood that filtering posts based on whether a “specific place” is “open” or “closed” as Rush teaches would have allowed the Feldman/Jackson Combination’s user to be presented with, and thereby “tune into,” only posts about locations that are currently open, desirably allowing the user to gather information only on open places the user may be interested in visiting at that time.

Pet. 69 (citing Ex. 1007 ¶¶ 24, 39, 65; Williams Decl. ¶ 212). Petitioner asserts that Rush’s criteria improves the user experience and user engagement. *Id.* at 70 (citing Ex. 1006, 6:50–53; Williams Decl. ¶ 213). According to Petitioner, incorporating Rush into the Feldman-Jackson combination involves no more than “combining prior-art elements according to known methods to yield predictable results,” and one of ordinary skill in the art would have had a reasonable expectation of success doing so. *Id.* at 70–71 (citing Williams Decl. ¶¶ 214–215; Ex. 1005 ¶ 99; Ex. 1007 ¶¶ 85–88). At this stage and on this record, we determine that

Petitioner’s articulated reasoning has rational underpinning and is supported by the cited evidence.

Thus, based on the current record, Petitioner has established a reasonable likelihood that it will prevail in demonstrating that claim 12 would have been obvious over Feldman, Jackson, and Rush.

3. *Claim 16*

Claim 16 recites, “The method of claim 11, wherein the general score of a social media post is based on a posting account that authored the social media post, and wherein the general score of the social media post is reduced based on movement of a client device used to author the social media post.” Ex. 1001, 23:36–39.

Petitioner asserts that claim 16 is unpatentable as obvious over Feldman, Jackson, and Rush. *See* Pet. 65–74. Petitioner asserts that “Rush also teaches weighting and filtering posts based on the poster’s location.” *Id.* at 68 (citing Ex. 1007 ¶ 65; Williams Decl. ¶ 210). Petitioner asserts that the posts can be weighted based on a geo-fence—i.e., whether it was made inside a particular area. *Id.*

Patent Owner does not present separate arguments specific to the Petitioner’s arguments and evidence about claim 16. *See* Prelim. Resp 9.

We have reviewed Petitioner’s arguments and evidence for claim 16. Pet. 65–73. We determine that Petitioner’s showing is sufficient at this stage and on this record. *Id.* For example, Rush explains that “the location sub-variables 363 make take into account the location of consumer 130 over time.” Ex. 1007 ¶ 65, *cited in* Pet. 68.

Petitioner’s obviousness rationale for claim 16 is similar to the one for claim 12, which we determine is sufficient at this stage. *Supra* § II.D.2. In addition to the reasoning discussed for claim 12, Petitioner asserts that a

person of ordinary skill in the art “would have understood that filtering posts based on whether the poster had ever been to a particular area as Rush teaches would have allowed the Feldman/Jackson Combination’s user to tune into posts from only posters with first-hand knowledge of a location they are commenting on because those posters had visited that location.” Pet. 70 (citing Ex. 1007 ¶¶ 38–39; Williams Decl. ¶ 212). For reasons similar to those discussed in connection with claim 12, we determine that Petitioner’s articulated reasoning has rational underpinning and is supported by the cited evidence, at this stage and on this record.

Thus, based on the current record, Petitioner has established a reasonable likelihood that it will prevail in demonstrating that a claim 16 would have been obvious over Feldman, Jackson, and Rush.

III. CONCLUSION

Petitioner has shown a reasonable likelihood of prevailing as to the unpatentability of at least one of the challenged claims. Thus, we institute an *inter partes* review on all claims challenged in the petition and on all grounds in the petition.

IV. ORDER

It is

ORDERED that, under 35 U.S.C. § 314(a), an *inter partes* review of claims 1–20 of the ’727 patent is instituted for all grounds in the Petition; and

FURTHER ORDERED that, under 35 U.S.C. § 314(a), *inter partes* review of the ’727 patent is instituted on this Decision’s entry date, and under 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is given of the trial’s institution.

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