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Paper 21
Date: March 30, 2026

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner,

v.

ESCAPEX IP LLC,
Patent Owner.

IPR2025-00337
Patent 10,474,687 B2

Before JUSTIN T. ARBES, MICHAEL J. STRAUSS, and GEORGIANNA W. BRADEN, *Administrative Patent Judges.*

ARBES, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining All Challenged Claims Unpatentable
35 U.S.C. § 318(a)

I. INTRODUCTION

A. Background and Summary

Petitioner Google LLC filed a Petition (Paper 1, "Pet.") requesting *inter partes* review of claims 1–24 of U.S. Patent No. 10,474,687 B2 (Ex. 1001, "the '687 patent") pursuant to 35 U.S.C. § 311(a). On May 28,

2025, the Board instituted an *inter partes* review as to all challenged claims on all grounds of unpatentability asserted in the Petition. Paper 7 ("Decision on Institution" or "Dec. on Inst."). Patent Owner EscapeX IP LLC filed a Patent Owner Response (Paper 9, "PO Resp."), Petitioner filed a Reply (Paper 13, "Reply"), and Patent Owner filed a Sur-Reply (Paper 15, "Sur-Reply"). An oral hearing was held on February 25, 2026, and a transcript of the hearing is included in the record (Paper 20, "Tr.").

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a). For the reasons that follow, we determine that Petitioner has shown, by a preponderance of the evidence, that claims 1–24 of the '687 patent are unpatentable.

B. Related Matters

The parties indicate that the '687 patent was the subject of *EscapeX IP LLC v. Google LLC*, No. 23-cv-10839 (S.D.N.Y.), which has been dismissed. *See* Pet. 6, 10–11; Paper 14, 2.

C. The '687 Patent

The '687 patent, titled "System and Method of Aggregating Networked Social Content and Facilitating Uncapped Engagement in a Networked Virtual Environment," issued November 12, 2019, from U.S. Patent Application No. 15/368,972, filed on December 5, 2016, which is a continuation of U.S. Patent Application No. 15/165,756, filed on May 26, 2016. Ex. 1001, codes (21), (22), (45), (54), (63). The '687 patent explains that it was difficult for users of social media platforms "to get noticed or otherwise be distinguished from other users." *Id.* at col. 1, ll. 27–31. According to the '687 patent, conventional social media platforms

allowed users to express interest in a topic in a manner that was "more content-centric rather than user-centric." *Id.* at col. 1, ll. 31–33. For example, a "like" on the Facebook platform "does not distinguish one user who likes the content from another user because each user is generally limited to a single 'like.'" *Id.* at col. 1, ll. 33–39. The '687 patent purports to address those drawbacks with a system that "provide[s] engagements in exchange for user resources" and allows a user to obtain an "uncapped (i.e., unlimited)" number of engagements. *Id.* at col. 1, ll. 50–53, col. 2, ll. 1–11.

Figure 3 of the '687 patent is reproduced below.

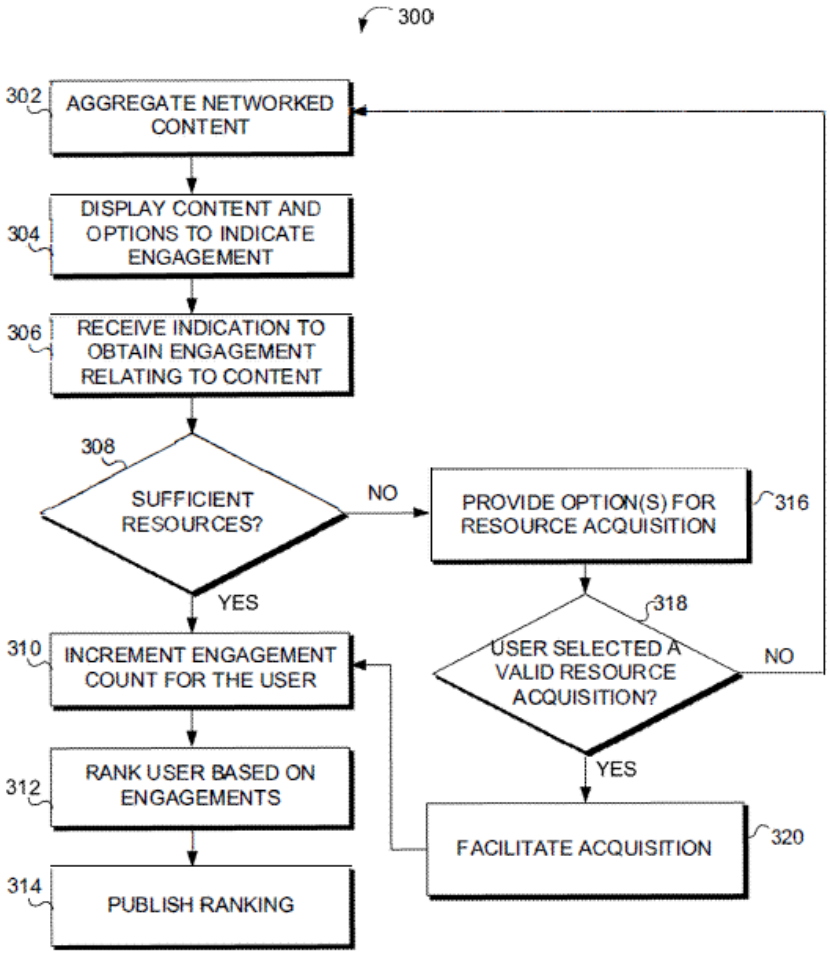


FIG. 3

Figure 3 is a flow chart that "depicts a process of aggregating networked social content and facilitating uncapped engagement in a networked virtual

environment." Ex. 1001, col. 5, ll. 24–27. Step 302 aggregates networked content, which may include obtaining content from system-provided or third-party platforms or requesting content from third-party platforms associated with a particular user (e.g., a celebrity). *Id.* at col. 11, ll. 55–66. Step 304 displays the aggregated content and provides options for engaging with the content. *Id.* at col. 12, ll. 3–11. Users may click, gesture, or otherwise interact with the system at step 306 to cause the processor to receive an indication to obtain engagement for the content. *Id.* at col. 12, ll. 12–19. For example, a user "may obtain engagements relating to content posted by [a] celebrity in order to get noticed by the celebrity." *Id.* at col. 11, l. 66–col. 12, l. 2. At step 308, the processor determines whether the user has sufficient resources (e.g., virtual or real currency) to obtain the requested engagement. *Id.* at col. 2, ll. 3–6, col. 12, ll. 20–27. If the user has sufficient resources, then at step 310 the processor can increment the user's engagement count and decrement the user's resources. *Id.* at col. 12, ll. 28–33. At step 312, the user is ranked based on the number of engagements, and at step 314 the user's ranking is published. *Id.* at col. 12, ll. 34–49. If the user did not have sufficient resources at step 308, then at step 316 the processor may provide the user with options to obtain more resources (e.g., buying more virtual currency). *Id.* at col. 12, ll. 50–61. At step 320, the processor facilitates the selected method of resource acquisition, and if the resources are successfully obtained, the user is routed to step 310 to complete the requested engagement. *Id.* at col. 13, ll. 1–8.

Figure 4 of the '687 patent is reproduced below.

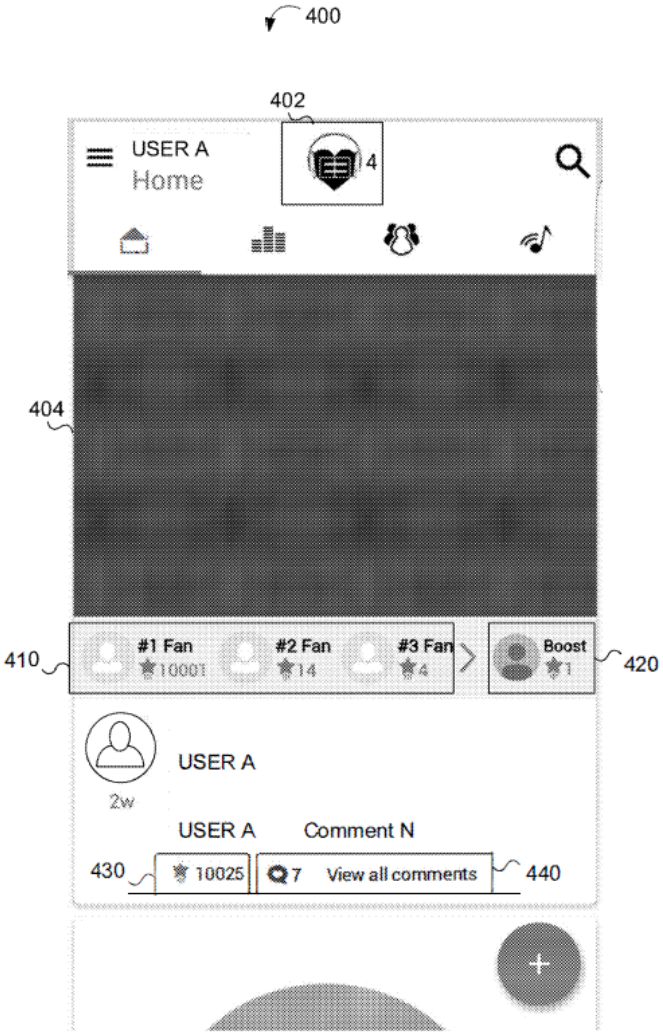


FIG. 4

Figure 4 "depicts a screenshot of a user interface for uncapped engagement in a networked virtual environment." Ex. 1001, col. 5, ll. 28–30. User interface 400 may display resource quantity indicator 402, which shows the "number of resources available to a user for obtaining engagements"; content portion 404; engagement ranking 410, which "display[s] the ranking of users based on the number of engagements they have obtained with respect to the content"; "option to initiate obtaining an engagement 420" (shown as a "Boost" button); and indication 430, which shows the "number of engagements by all users relating to the content." *Id.* at col. 13, ll. 9–52.

Selecting option 420 causes the user interface shown in Figure 5 to be displayed. *Id.* at col. 13, ll. 47–49.

Figure 5 of the '687 patent is reproduced below.

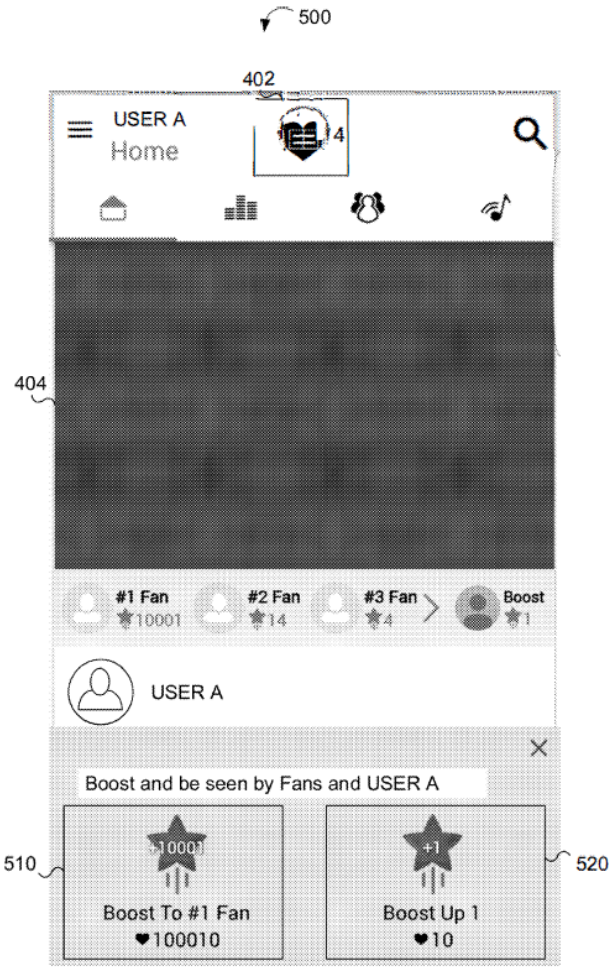


FIG. 5

Figure 5 depicts a screenshot of a similar user interface that provides the user with "options to obtain engagements." Ex. 1001, col. 13, ll. 57–60. Selecting "objective-based engagement option" 510 (shown as a "Boost To #1 Fan" button) "causes a number of engagements to be obtained by the user that results in the user being the top ranked user." *Id.* at col. 13, ll. 60–67. Selecting "single engagement option" 520 (shown as a "Boost Up 1" button) "causes a single engagement to be obtained by the user." *Id.* at col. 13, l. 67–col. 14, l. 2.

D. Illustrative Claim

Claims 1, 11–13, 23, and 24 of the '687 patent are independent. Claims 2–10 depend from claim 1 and claims 14–22 depend from claim 13. Claim 1 recites (with letter designations used in the Petition to refer to the various limitations):

> 1. [a] A system for aggregating content and facilitating uncapped engagement of the content, the system comprising:
>
> [b] a computer system comprising one or more physical processors programmed by computer program instructions to:
>
> [c] obtain a networked content item authored by a user;
>
> [d] generate a user interface that displays a first number of engagements with the networked content item obtained by a first user, a second number of engagements with the networked content item obtained by a second user, and [e] a display option configured to receive a request to obtain a number of engagements with respect to the networked content item, [f] wherein a single engagement requires an amount of resources and the first number of engagements was obtained in exchange for a first amount of resource from the first user, and the second number of engagement was obtained in exchange for a second amount of resources from the second user;
>
> [g] provide, via a network, the user interface;
>
> [h] receive, via the user interface, an indication to obtain a third number of engagements relating to the networked content item from a third user different from the user that authored the networked content item, the first user, and the second user;
>
> [i] determine a third amount of resources required to obtain the third number of engagements by multiplying the amount of resources required for a single engagement with the third number;
>
> [j] debit the third amount of resources from a user account balance associated with the third user;

> [k] store, in a database accessible to the computer system, an association between the third number of engagements and the third user; and
>
> [l] provide, in the user interface, an indication of the third number of engagements.

Ex. 1001, col. 16, ll. 23–58.

E. Evidence of Record

The challenges to patentability in the instant *inter partes* review are based on the following prior art:

> U.S. Patent No. 7,835,943 B2, issued Nov. 16, 2010 (Ex. 1009, "Cheung");
>
> U.S. Patent Application Publication No. 2013/0030905 A1, published Jan. 31, 2013 (Ex. 1004, "Fuloria");
>
> U.S. Patent Application Publication No. 2014/0025688 A1, published Jan. 23, 2014 (Ex. 1005, "Andler");
>
> U.S. Patent Application Publication No. 2015/0058103 A1, published Feb. 26, 2015 (Ex. 1008, "Kirk");
>
> U.S. Patent Application Publication No. 2016/0314501 A1, filed Mar. 23, 2016, published Oct. 27, 2016 (Ex. 1012, "Bartholomew"); and
>
> International Patent Application Publication No. WO 2015/089100 A1, published June 18, 2015 (Ex. 1011, "WO '100").

Petitioner filed a declaration of Benjamin B. Bederson, Ph.D. (Ex. 1002) with its Petition. Patent Owner did not file any declarations in the proceeding and did not cross-examine Dr. Bederson.

F. Asserted Challenges

Petitioner asserts in the Petition that claims 1–24 of the '687 patent would have been obvious on the basis of prior art patents and printed publications under 35 U.S.C. § 103:

Claims Challenged	35 U.S.C. §	References/Basis
1–3, 5, 6, 13–15, 17, 18	103	Fuloria, Andler
11, 23	103	Fuloria, Andler, WO '100
12, 24	103	Fuloria, Andler, Bartholomew
4, 16	103	Fuloria, Andler, Kirk
7–10, 19–22	103	Fuloria, Andler, Cheung

II. ANALYSIS

A. Level of Ordinary Skill in the Art

In determining the level of ordinary skill in the art for a challenged patent, we look to "1) the types of problems encountered in the art; 2) the prior art solutions to those problems; 3) the rapidity with which innovations are made; 4) the sophistication of the technology; and 5) the educational level of active workers in the field." *Ruiz v. A.B. Chance Co.*, 234 F.3d 654, 666–67 (Fed. Cir. 2000). "Not all such factors may be present in every case, and one or more of them may predominate." *Id.* at 667.

Petitioner argues that at the time of the '687 patent (May 2016), a person of ordinary skill in the art would have had "a bachelor's degree in computer science or a similar field and three years of professional computer programming experience, including experience with networked media and databases, where additional education can substitute for experience or vice versa." Pet. 20 (citing Ex. 1002 ¶¶ 27–31). In the Decision on Institution,

the Board agreed with and applied Petitioner's proposed definition. Dec. on Inst. 7–8. Patent Owner adopts Petitioner's proposed definition "because it comports with the technology and claims of the '687 [p]atent as well as the asserted prior art." PO Resp. 4; Tr. 36:4–18. Based on the full record developed during trial, including our review of the '687 patent and the types of problems and solutions described in the '687 patent and cited prior art, we maintain the previously adopted definition of the level of ordinary skill in the art and apply it for purposes of this Decision.

B. Claim Interpretation

We interpret the claims of the challenged patent

> using the same claim construction standard that would be used to construe the [claims] in a civil action under 35 U.S.C. 282(b), including construing the [claims] in accordance with the ordinary and customary meaning of such [claims] 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). Petitioner argues that the term "engagement" in independent claims 1, 11–13, 23, and 24 is defined in the Specification of the '687 patent and should be interpreted to mean "an indication that a user should be distinguished with respect to the content over another user." Pet. 11 (citing Ex. 1001, col. 5, ll. 53–55; Ex. 1002 ¶ 41). Patent Owner agrees that the Specification "defines" the term in that manner.
PO Resp. 13. The Board did not interpret any terms in the Decision on Institution. Dec. on Inst. 9. We agree with the parties' proposed interpretation of "engagement" and apply it for purposes of this Decision, based on the Specification's disclosure that "[a] user engagement with content refers to an indication that a user should be distinguished with

respect to the content over another user." *See* Ex. 1001, col. 5, ll. 53–55. No other terms require express interpretation to determine whether Petitioner has met its burden to prove unpatentability of the challenged claims. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) ("Because we need only construe terms 'that are in controversy, and *only to the extent necessary* to resolve the controversy,' we need not construe [a particular claim limitation] where the construction is not 'material to the . . . dispute.'" (emphasis added) (citation omitted)).

C. Legal Standards

To prevail in its challenge to the patentability of claims 1–24 of the '687 patent, Petitioner must demonstrate that the claims are unpatentable by a preponderance of the evidence. 35 U.S.C. § 316(e). "In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable." *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016). This burden of persuasion never shifts to Patent Owner. *Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015); *see also In re Magnum Oil Tools Int'l, Ltd.*, 829 F.3d 1364, 1376 (Fed. Cir. 2016) ("Where, as here, the only question presented is whether due consideration of the four *Graham* factors renders a claim or claims obvious, no burden shifts from the patent challenger to the patentee.").

A claim is unpatentable for obviousness if, to one of ordinary skill in the pertinent art, "the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains."

35 U.S.C. § 103; *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including "the scope and content of the prior art"; "differences between the prior art and the claims at issue"; and "the level of ordinary skill in the pertinent art." *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). Additionally, objective indicia of nonobviousness, such as "commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented. As indicia of obviousness or nonobviousness, these inquiries may have relevancy."[1] *Id.* When conducting an obviousness analysis, we consider a prior art reference "not only for what it expressly teaches, but also for what it fairly suggests." *Bradium Techs. LLC v. Iancu*, 923 F.3d 1032, 1049 (Fed. Cir. 2019).

A patent claim "is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art." *KSR*, 550 U.S. at 418. An obviousness determination based on a combination of references requires finding "both 'that a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so.'" *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1367–68 (Fed. Cir. 2016) (quoting *Kinetic Concepts, Inc. v. Smith & Nephew, Inc.*, 688 F.3d 1342, 1360 (Fed. Cir. 2012)); *see KSR*, 550 U.S. at 418 (for an obviousness analysis, "it can be important to identify a reason that would have prompted a person of

[1] Patent Owner does not present any evidence of objective indicia of nonobviousness in this proceeding.

ordinary skill in the relevant field to combine the elements in the way the claimed new invention does").

"Although the *KSR* test is flexible, the Board 'must still be careful not to allow hindsight reconstruction of references . . . without any explanation as to *how* or *why* the references would be combined to produce the claimed invention.'" *TriVascular, Inc. v. Samuels*, 812 F.3d 1056, 1066 (Fed. Cir. 2016) (quoting *Kinetic Concepts*, 688 F.3d at 1368) (alteration in original). Further, an assertion of obviousness "cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *KSR*, 550 U.S. at 418 (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)); *accord In re NuVasive, Inc.*, 842 F.3d 1376, 1383 (Fed. Cir. 2016) (stating that "conclusory statements" amount to an "insufficient articulation[] of motivation to combine"; "instead, the finding must be supported by a 'reasoned explanation'" (quoting *In re Lee*, 277 F.3d 1338, 1342 (Fed. Cir. 2002))); *In re Magnum Oil Tools Int'l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016) ("To satisfy its burden of proving obviousness, a petitioner cannot employ mere conclusory statements. The petitioner must instead articulate specific reasoning, based on evidence of record, to support the legal conclusion of obviousness.").

D. Alleged Obviousness Based on Fuloria and Andler (Claims 1–3, 5, 6, 13–15, 17, and 18)

1. Fuloria

Fuloria is a patent application publication titled "User-Initiated Boosting of Social Networking Objects" and relates to "providing a mechanism for users to promote social networking objects to other users."

Ex. 1004, code (54), ¶ 1. Fuloria states that "users may choose to promote or express an affinity for their own or others' stories appearing in their news feed," and this may be done by clicking a "like" button on social media. *Id.* ¶ 8. Also, "[u]pon paying for the promotion of the content, the story may be pinned to the top of [a user's] first-degree connections' news feeds for a predetermined amount of time, or prominently displayed in a sponsored stories area of his first degree connections' home pages." *Id.* ¶ 27.

Figure 1 of Fuloria is reproduced below.

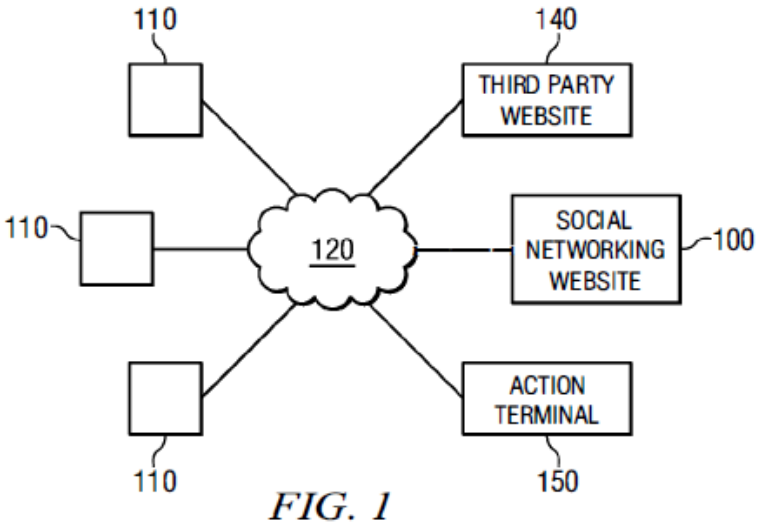


FIG. 1

Figure 1 is a block diagram depicting a system environment for operation of social networking system 100. Ex. 1004 ¶ 28. "Social networking system 100 comprises a computing system that allows members to communicate or otherwise interact with each other and access content . . . ." *Id.* ¶ 30. Client devices 110 are computing devices used by members of social networking website 100 that transmit and receive data via network 120. *Id.* ¶ 29. Third party website 140 and action terminal 150 communicate via network 120 to communicate messages to social networking system 100 about the members' actions on social networking website 100. *Id.*

Social networking system 100 may provide users with a button to "like" or "super-like" a piece of content. Ex. 1004 ¶ 37. "When a user clicks the 'super-like' or promotion button, the account associated with the user may be debited a predetermined number of credits." *Id.* ¶ 38. Credits may be real-world money or "valueless electronic currency." *Id.* Super-liked content may be displayed prominently until the expiration of a pre-condition (e.g., a certain period of time, number of views, or number of clicks) on the user's home page, friends' home pages, advertising spaces, or some subset of those categories. *Id.* ¶¶ 57, 60–61. Fuloria also discloses that, instead of being debited a number of credits at the time the "super-like" button is clicked, credits may be "deducted after the promoted social networking object is delivered to various users, based on the delivery. For example, the social networking system may deduct the credits based on a cost per impression (CPM), effective cost per impression (eCPM), cost per click (CPC), or cost per action (CPA) pricing model." *Id.* ¶ 38. Fuloria states that it "contemplates any suitable payment system for promoting social networking objects." *Id.*

Figures 9A–9C of Fuloria depict a user interface displayed as users promote and pin content to their news feeds. Ex. 1004 ¶¶ 21–23, 65–67. Figure 9C of Fuloria is reproduced below.

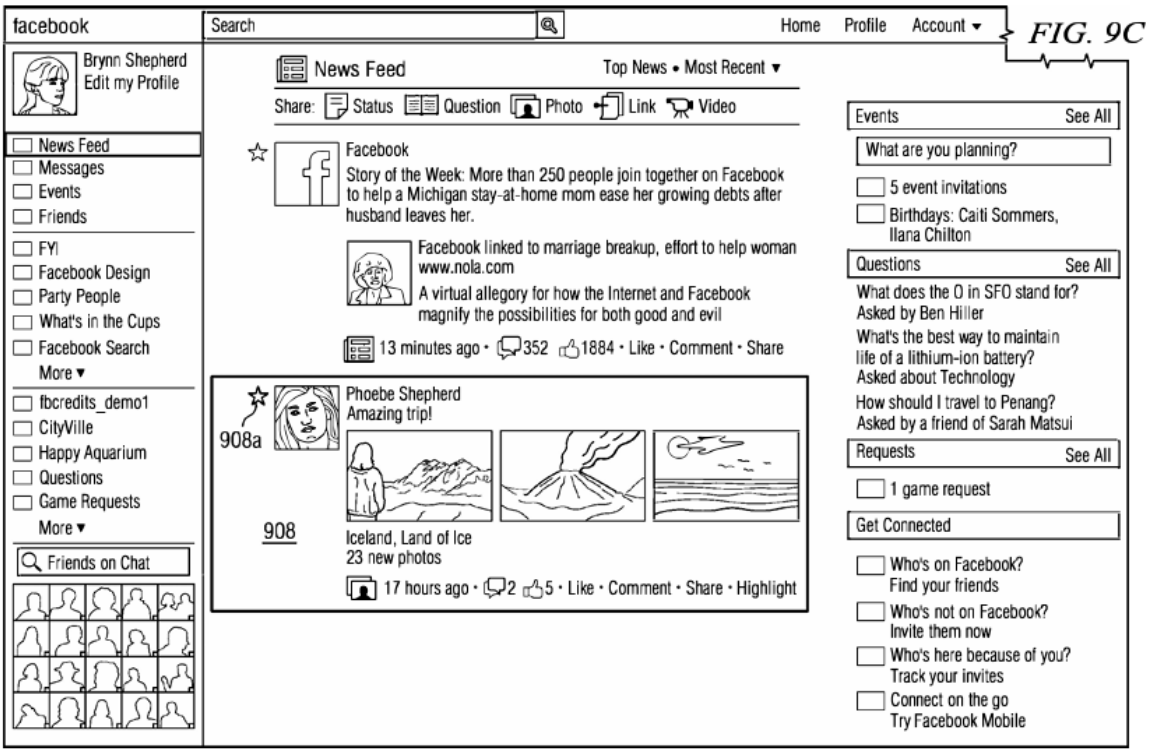


Figure 9C is an illustration that depicts news feed 902 for a user, Brynn Shepherd. Ex. 1004 ¶ 67. Photo story 903, which is an uploaded photo album from Brynn Shepherd's friend "Phoebe Shepherd" (*see id.* ¶ 65, Fig. 9A), is pinned to the news feed as highlighted story 908. *Id.* ¶ 67. Photo story 903 may include highlight button 903a, feature button 803a, or a super-like button. *Id.* ¶¶ 62, 65–67, Fig. 9B. Indicator 908a shows that photo story 903 has been highlighted. *Id.*

2. Andler

Andler is a patent application publication titled "Determining, Distinguishing and Visualizing Users' Engagement with Resources on a Social Network." Ex. 1005, code (54). Andler relates to "displaying top fan

status information relating to selected content in a social network." *Id.* at code (57). Andler utilizes an "engagement score" in its process, where "[a]n engagement score is determined for each of one or more first users." *Id.* Engagement scores may be "based on interactions of each of the first users with the selected item of content" or "based on whether additional users have accessed the item of content based on the interaction of one of the first users." *Id.* ¶ 206.

According to Andler, prior art social networks lacked "the ability to identify those users who are 'top fans' and/or who interact with the social network page contents to a greater extent than other users/fans." Ex. 1005 ¶ 14. Andler purports to address this issue by identifying and displaying an indication as to the "most important/influential fans in a resource's (e.g., artist or profile) audience." *Id.* ¶ 22. As a person interacts with a profile's content, that person's ranking increases. *Id.* Influencing others to interact with the profile's content also may increase a person's rank. *Id.* "As a specific example, a user may be considered a top fan if such a user has listened to content on a social network site, and as a result of that shared activity, other users have been referred to/consume that artist/piece of content/resource." *Id.* ¶ 162. In addition,

> a user's top fan status may be based on a user's inserted positive comments about content/page, whether a user has recommended such content to a user, whether a user has indicated attendance at an event (or multiple events) relating to the content/page (e.g., a concert corresponding to an artist's page), whether a user frequently posts comments on the content's page, whether a user's friends have interacted with content based on a user's initial interaction with such content, etc.

Id. ¶ 200. Content owners can view an "ordered list of users' top fan statuses," which "would enable the owner to get to know their audience

more" and "reward top fans for their interaction." *Id.* ¶ 201. Similarly, a user may view a list of top fans, "including an identification of the current user's ranking within that list," which "would provide the user with useful information and potentially motivate the user to increase his/her interaction to improve his/her top fan status." *Id.* ¶¶ 201–203 (describing Figure 6, an illustration of a "top fan page").

3. Independent Claim 1

Petitioner argues that Fuloria and Andler collectively teach all of the limitations of claim 1, and that it would have been obvious to combine the references' teachings to achieve the system of claim 1, relying on the testimony of Dr. Bederson as support. Pet. 15–43 (citing Ex. 1002). In general, Petitioner relies on Fuloria for its social media system that "offers users the ability to super-like content in an uncapped manner" and relies on Andler for various disclosures pertaining to "calculating engagement scores for . . . user[s]" and "ranking . . . users by engagement." *Id.* at 15–16. Patent Owner responds that the references do not teach certain limitations of claim 1. PO Resp. 9–24.

a) Undisputed Issues: Reason to Combine and Limitations [1a]–[1d], [1g], and [1j]–[1l]

Petitioner first explains why and how a person of ordinary skill in the art would have had reason to combine the teachings of Fuloria with those of Andler. *See* Pet. 16–20. Petitioner contends that an ordinarily skilled artisan would have been motivated to "incorporate Andler's engagement scores and rankings into Fuloria, such that Fuloria would display a ranking of top users and numbers reflecting engagements obtained by each user." *Id.* at 16.

According to Petitioner, doing so would have provided various advantages described in Andler, such as allowing "content authors and social media site managers to identify, understand, and reward 'top fans,' which encourages engagement with a content creator's content, . . . thus furthering a content creator's promotional efforts." *Id.* at 16–17 (citing Ex. 1005 ¶¶ 22, 161–162, 188–190, 196, 201). Also, using engagement scores and rankings would "provide[] an incentive to fans to increase their own status, and thus to have more engagement with particular content." *Id.* at 17 (citing Ex. 1005 ¶ 201). Petitioner further argues that it would have been obvious to "display a ranking by engagement of top users with respect to particular content . . . together with a number indicating the level of engagement for each user" because Fuloria and Andler already teach determining and storing such data, and displaying the data "incentivizes [top users] to further engagement and distinguishes them with higher visibility." *Id.* at 17–18 (citing Ex. 1004 ¶¶ 5, 31, 38, 57, Figs. 8A, 9A; Ex. 1005, code (57), ¶¶ 163–164, 196, 201, 206).

Petitioner also argues that Fuloria and Andler are similar references, as both describe using Facebook as the "underlying social media platform for their respective methods" and both disclose the concept of exchanging resources to boost content. Pet. 16–17 (citing Ex. 1004, Figs. 8–9; Ex. 1005 ¶¶ 49, 198). Furthermore, using Andler's engagement scores and rankings in Fuloria's system would have amounted to "the application of known techniques (Andler's) to a known system (Fuloria's) with predictable results." *Id.* at 18. Lastly, Petitioner argues that a person of ordinary skill in the art would have had a reasonable expectation of success in combining the references' teachings as described above because the art was predictable and "the basic components that made up systems like social network systems

[were] well-known in the art." *Id.* at 20. Petitioner's contentions regarding a rationale to combine and reasonable expectation of success are supported by testimony from Dr. Bederson. *See* Ex. 1002 ¶¶ 54–65.

Turning to the limitations of claim 1, the preamble recites a "system for aggregating content and facilitating uncapped engagement of the content." Petitioner argues that Fuloria teaches social networking system 100 for aggregating content (e.g., in a "news feed" like Figure 9C) and facilitating "uncapped" engagement, where users may super-like content an unlimited number of times and super-liking content facilitates other users engaging with that content (by themselves liking or commenting on the content). Pet. 21–26. Petitioner contends that "Fuloria places *no limitation* on how many times a user can super-like a piece of content" or "how many credits a user can spend" to super-like content. *Id.* at 25. Petitioner argues that Fuloria teaches the preamble of claim 1, regardless of whether it is limiting. *See id.* at 21–26.

Limitation [1b] recites "a computer system comprising one or more physical processors programmed by computer program instructions." Petitioner cites Fuloria's disclosure of a computer system with processors having "hardware for executing instructions, such as those making up a computer program," and a web server. Pet. 26–27 (quoting Ex. 1004 ¶ 71; citing Ex. 1004 ¶¶ 29, 31–32, 35–36, 46, 58, 68–78, Figs. 1, 2, 10) (emphasis omitted).

The remaining limitations of claim 1 recite the steps that the one or more physical processors are programmed to perform. Limitation [1c] recites "obtain[ing] a networked content item authored by a user." Petitioner argues that Fuloria allows users to post content, such as "photos, photo albums, videos, status messages, shared links, notes, and comments," which

"may be liked or otherwise interacted with . . . on the social networking system." Pet. 27 (quoting Ex. 1004 ¶ 8; citing Ex. 1004 ¶¶ 4, 6, 27, 29, 36–37, 57, 62–67, Figs. 4, 8–9).

Limitation [1d] recites "generat[ing] a user interface that displays a first number of engagements with the networked content item obtained by a first user [and] a second number of engagements with the networked content item obtained by a second user." Petitioner cites the exemplary "news feed" user interfaces shown in Figures 8–9 of Fuloria and argues that users may engage with the displayed content by "super liking, liking, or commenting on the content." Pet. 28–29 (citing Ex. 1004 ¶¶ 6–8, 26–27, 37–39, 57–58, 62–67, 70, Figs. 8–9). For example, Figure 8 shows that "two users each liked a photo album one time," Figure 9A shows "1884 likes for the top news story," and Figure 9C shows "one super-like" for Phoebe Shepherd's photo album post. *Id.* at 29.

Petitioner further contends that based on the teachings of Andler, it would have been obvious to "display a ranking of top users" and show "engagement scores, number of engagements, the credit used to obtain them, or the real-world value of such credits," any of which would constitute a "number of engagements" obtained by a user. Pet. 29–30. As support, Petitioner cites Andler's disclosure that an engagement score can be based on "whether *additional users* have accessed the item of content based on the interaction of one of the first users." *Id.* at 30 (quoting Ex. 1005 ¶ 206) (emphasis added). An engagement score, therefore, "reflects a quantification of engagements 'obtained by' a user," where "the engagements *of other users* are 'obtained by' a first user in the combination because they result from the first user's super-like of a news story." *Id.* (citing Ex. 1004 ¶ 38). Similarly, when a CPC or CPA pricing model is used

in Fuloria, a user "obtains a number of engagements of other users," paying for those engagements after the corresponding engagement (e.g., like action, comment action) takes place. *Id.* at 31, 33–34 (citing Ex. 1004 ¶ 38) (emphasis omitted).

As to the recitation in limitation [1d] of "first" and "second" numbers of engagements obtained by "first" and "second" users, Petitioner argues that super-likes are available to all users in Fuloria and it would have been obvious based on Andler to rank "top users" (e.g., two users) that super-liked a particular content item. Pet. 31 (citing Ex. 1004 ¶¶ 37–39).

Limitation [1g] recites "provid[ing], via a network, the user interface." Petitioner argues that Fuloria's user interface is provided to the user over the Internet. Pet. 36 (citing Ex. 1004 ¶¶ 6–8, 37, 46, 75, Figs. 6, 8–9).

Limitation [1j] recites "debit[ing] the third amount of resources from a user account balance associated with the third user." Petitioner relies on Fuloria's disclosure that "when a user 'super-likes' content in exchange for resources (credits), 'the account associated with the user may be debited a predetermined number of credits,'" and the credits may be deducted after the promoted object is delivered to users (e.g., in the CPC or CPA pricing model, discussed further below with respect to limitation [1e]). Pet. 38–39 (quoting Ex. 1004 ¶ 38; citing Ex. 1004 ¶¶ 59, 66, Figs. 8B, 9B) (emphasis omitted); *see infra* Section II.D.3.b.

Limitation [1k] recites "stor[ing], in a database accessible to the computer system, an association between the third number of engagements and the third user." Petitioner argues that Fuloria teaches tracking a "user's prior credit or spending history" and it would have been obvious to store "a record of purchases made using the user's account balance as a matter of accurate record keeping and to permit all parties to review prior account

transactions." Pet. 39–40 (quoting Ex. 1004 ¶ 37; citing Ex. 1004 ¶¶ 5, 47). Petitioner further contends that it would have been obvious based on Andler to "track and store [that] information in order to use it to calculate engagement scores and associated rankings." *Id.* at 40. As further support, Petitioner points to two references, incorporated by reference in Fuloria, describing tracking numbers of actions (e.g., likes) and using databases for "organized data storage." *Id.* at 40–41 (citing Ex. 1004 ¶¶ 5, 31, 33–37, 47, 70, Figs. 2, 3, 10; Ex. 1006 ¶¶ 27, 30, 48, 63–64 ("Schoen"); Ex. 1007 ¶ 51 ("Fougner")); *see* Ex. 1004 ¶¶ 2–3 (stating that the two applications that published as Schoen and Fougner are incorporated by reference into Fuloria).

Limitation [1l] recites "provid[ing], in the user interface, an indication of the third number of engagements." Petitioner points to Figure 9C of Fuloria showing, for example, that there were "2 comments and 5 likes" for Phoebe Shepherd's super-liked photo album post. Pet. 41–42 (citing Ex. 1004 ¶¶ 8, 27, 37–39, 57–59, 61–67, Figs. 8–9). Petitioner argues that Fuloria's system tracks "the number of engagements obtained by each user who super-liked a content item in order to charge the user the appropriate number of credits" and it would have been obvious to display the results of that tracking (i.e., "how many engagements were obtained as a result of the user super-liking the content item") to "show the source of the engagements" (as discussed further below with respect to limitation [1e]). *Id.* at 42; *see infra* Section II.D.3.b.

Patent Owner in its Response does not dispute that Fuloria and Andler teach limitations [1a]–[1d], [1g], and [1j]–[1l] of claim 1, or that a person of ordinary skill in the art would have had reason to combine the references' teachings in the manner asserted by Petitioner. Nonetheless, the burden

remains on Petitioner to demonstrate unpatentability. *Dynamic Drinkware*, 800 F.3d at 1378 (discussing the burden of proof in *inter partes* review).

Having reviewed Fuloria and Andler, on the complete trial record, we agree with Petitioner's analysis, as supported by the testimony of Dr. Bederson, which we credit. *See* Pet. 15–31, 36, 38–43; Ex. 1002 ¶¶ 54–87, 95, 100–106.

b) Disputed Limitation [1e]

Limitation [1e] recites "generat[ing] a user interface that displays . . . a display option configured to receive a request to obtain a number of engagements with respect to the networked content item." Ex. 1001, col. 16, ll. 30–36. Petitioner argues that in Fuloria, a user requests to super-like a content item by clicking a button on the user interface, which causes a dialog box to be displayed, prompting the user to confirm that he or she wants to pay a certain amount of credits for the super-like. Pet. 32 (citing Ex. 1004 ¶¶ 37–38, 62–63, 65–66); *see* Ex. 1004, Figs. 8A ("Feature" button 803a), 8B (dialog box 805, "Feature this Post for 10 Credits"), 9A ("Highlight" button 903a), 9B (dialog box 905, "Highlight this Post for 10 Credits"). According to Petitioner, that process is "a request to obtain a number of engagements" as recited in limitation [1e] for two reasons. Pet. 32.

Petitioner contends first that "when a user seeks to promote a content item in this manner, the user is not only engaging with the content item herself, the user is also seeking to increase engagement *by other users* with respect to that content item" because the super-liked content item is then "prominently displayed to [the] user's connections," allowing them to engage with it (e.g., like or comment). Pet. 32–33 (citing Ex. 1004 ¶¶ 8, 27, 37–39, 57–58, 62–67, Figs. 8–9).

Second, Petitioner contends that "a user can adjust the scope of the 'super-like' to last longer or reach more users, thus changing the price . . . and affecting the 'number' (quantification) of offered engagements." Pet. 33–34 (citing Ex. 1004, code (57), ¶¶ 38–39, 57). Fuloria discloses the following:

> When a user clicks the "super-like" or promotion button, the account associated with the user may be debited a predetermined number of credits. . . . In particular embodiments, the credits are deducted *after the promoted social networking object is delivered to various users*, based on the delivery. For example, the social networking system may deduct the credits based on a cost per impression (CPM), effective cost per impression (eCPM), *cost per click (CPC), or cost per action (CPA) pricing model*. This disclosure contemplates any suitable payment system for promoting social networking objects.

Ex. 1004 ¶ 38 (emphasis added). Therefore, according to Petitioner, Fuloria teaches that "payment can be based on the number of users that ultimately engage with (e.g., view, click on, or take an action with respect to) a social networking object." Pet. 34. "For example, a user may request to feature the content item until it receives 10 'likes' and then be charged per like," or "a user may request to feature the content item for a certain length of time, and the[n] be charged based on how many users ultimately like or comment on the content." *Id.*

Patent Owner admits that Fuloria teaches displaying "a display option configured to receive a request to obtain *engagement* with respect to the networked content item," but argues that the request in Fuloria is not to obtain "a number of engagements" as recited in limitation [1e].
PO Resp. 11–20 (emphasis added). Patent Owner argues that because a super-like is provided in exchange for a certain amount of resources, Fuloria "quantizes" the resource (e.g., 10 credits), not the super-like itself.

Id. at 16–17 (citing Ex. 1004 ¶¶ 38, 63). In other words, "there is no 'single super-like' and 'a number of super-likes'" in Fuloria. *Id.* at 17.

Patent Owner further asserts that Fuloria's super-like has a different purpose than the claimed "number of engagements." PO Resp. 18. According to Patent Owner, the Specification of the '687 patent describes "quantified engagements" as "not only facilitating the given user being noticed by other users, but also spurring competition among the users to achieve higher numbers of engagements through expending more resources." *Id.* (citing Ex. 1001, col. 2, l. 58–col. 4, l. 51). By contrast, the purpose of Fuloria's super-like is to "promote [a] networked content item, not to promote a user, . . . so there is no need to show [a] difference in quantity of 'super-like[s].'" *Id.* at 18–19 (citing Ex. 1004 ¶¶ 37, 39, 57). Patent Owner asserts that Petitioner "only show[s] that 'super-liked' promotion may increase other users['] engagement with respect to that content item (through promot[ing] the content item to reach . . . other users so that they have [a] chance to engage with it)," not a request to obtain "a number of engagements." *Id.* at 19–20. Also, although super-likes may have different prices, the amounts paid would only be known by the system and the super-liking user—"other users need not know" the amount that a super-liking user paid for the super-like, according to Patent Owner. *Id.* at 19. Patent Owner argues that because "Fuloria quantizes the resource, but does not quantize the 'super-like,' changing the price can only affect[] the 'number' of resources, not the 'number' of offered engagements." *Id.* at 20.

Patent Owner's arguments, however, do not account for Petitioner's theory in the Petition. Patent Owner is correct that Fuloria does not teach a user purchasing multiple super-likes at a time. *See* PO Resp. 17. But Petitioner does not map Fuloria's super-like to the recited "number of

engagements." Rather, Petitioner argues that when the user super-likes a content item, that request can be for a number of engagements by other users in the future, with the amount paid by the user reflecting that amount (e.g., using a CPC or CPA pricing model). Pet. 30 (arguing that "engagements *of other users* are 'obtained by'" a user "because they result from the . . . user's super-like of a news story"), 32–34. Therefore, clicking a button on the user interface to super-like a content item is the "request" and the subsequent engagements (e.g., likes, comments) by other users are the "number of engagements" that the user is requesting to "obtain."[2] *Id.*

Petitioner's theory is consistent with the disclosure of Fuloria. "When a user clicks the 'super-like' or promotion button, the account associated with the user may be debited a predetermined number of credits." Ex. 1004 ¶ 38. For example, Figures 8B and 9B show dialog boxes allowing the user to pay 10 credits to super-like a content item. Importantly, Fuloria expressly discloses that the credits can be "deducted *after the promoted social networking object is delivered to various users, based on the delivery*. For example, the social networking system may deduct the credits based on a . . . cost per click (CPC), or cost per action (CPA) pricing model." *Id.* (emphasis added). In that case, the amount paid by the user would be correlated to later clicks or actions (e.g., likes, comments) taken by other users with respect the

[2] As Petitioner points out, super-liking a content item is itself an "engagement" with the content item, but that is not what Petitioner maps to the "number of engagements" in limitation [1e]. *See* Reply 6 n.1. Petitioner instead maps the engagements of other users to the claimed "number of engagements." *See* Pet. 30, 32–34. Also, to the extent Patent Owner contends that Fuloria does not teach the engagements of other users being "added" to the original super-like, that is not Petitioner's contention either. *See* Sur-Reply 4–5, 10.

super-liked content item. *See id.* at code (57) ("[super-liked] social networking objects may be pinned for a predetermined amount of . . . clicks"), ¶¶ 38–39 ("The 'super-liked' story is priced and directed toward users in a similar manner as a social ad."), 57 (broadly stating that Fuloria's "disclosure contemplates . . . any suitable manner or duration of display of the [super-liked] social networking object"), 61 ("In particular embodiments, the expiry condition [for the super-like] is 'click dependent,' meaning the promoted social networking object remains pinned to the top of a friend of the promoting user's newsfeed until that friend clicks the promoted story. . . . This process repeats as more users view the 'super-liked' story."). The subsequent engagements of other users are thus quantified because the price for the super-like depends on the number of clicks or actions being purchased, where the user can pay more for more engagement. *See* Pet. 31, 33–34; Reply 7; Sur-Reply 4–5 (acknowledging that in Fuloria, "a user can pay more to increase the scope of the super-like, *e.g.*, to present it for more time, to present it to more people"). For example, a super-liking user may pay for a content item to be featured until 10 likes occur, or for the content item to be featured for a period of time and be charged per like. *See* Pet. 34; Reply 7.

Patent Owner does not dispute that the subsequent likes or comments of other users for a super-liked content item are "engagements," or that there may be a "number" of them. Patent Owner only appears to dispute whether they are "obtain[ed]" by the user who pays for them. *See* PO Resp. 16–20. To the extent Patent Owner's position is that the "request to obtain a number of engagements" in limitation [1e] must be for the engagements to be immediately obtained, we see no such requirement in the claim. Limitation [1e] is phrased in the future tense, i.e., "a display option configured to

receive a request *to obtain* a number of engagements with respect to the networked content item" (emphasis added).[3] Patent Owner also acknowledged at the hearing that the claimed engagements need not occur immediately when the request to obtain them is made. *See* Tr. 37:19–38:16 (agreeing with Petitioner's position that the "engagements can take place in the future from other users," the claimed request is "that it will happen in the future," and "the engagements need not take place immediately").

We also note that Patent Owner does not dispute Petitioner's arguments regarding limitation [1d]. *See supra* Section II.D.3.a. Nonetheless, the burden remains on Petitioner to demonstrate unpatentability. *Dynamic Drinkware*, 800 F.3d at 1378. Limitation [1d] recites displaying a first number of engagements "obtained by a first user." Petitioner primarily relies on Andler's engagement score as reflecting a quantified number of engagements of "other users" obtained by a first user, but also asserts that Fuloria "[s]imilarly" discloses that "when a first user super-likes a content item on a cost-per-click or cost-per-action model, . . . the first user *obtains* a number of engagements of other users, which can be displayed directly." *See* Pet. 30–31. If a first number of engagements can be "obtained" as Petitioner describes for limitation [1d], it is difficult to see how Fuloria would not also teach a request to "obtain" a number of engagements for purposes of limitation [1e]. *See id.* at 30–34.

[3] By contrast, limitations [1d] and [1f], for example, recite that the first number of engagements "was obtained" by the first user in exchange for a first amount of resources and the second number of engagements "was obtained" by the second user in exchange for a second amount of resources. Both use the past tense to indicate that the engagements have been "obtained."

Next, we do not agree with Patent Owner's argument that the purpose of Fuloria's super-like is different from that of the claimed "number of engagements" in limitation [1e]. *See* PO Resp. 18–20. Patent Owner does not point to any language in the claim requiring that the "number of engagements" be obtained for a particular purpose, only exemplary disclosure in the Specification of the '687 patent. *See* Ex. 1001, col. 3, ll. 1–5 ("*For example*, publishing the engagement information may publicize a given user's engagements to other users, which may not only facilitate the given user being noticed by other users, but also spur competition among the users to achieve higher numbers of engagements." (emphasis added)) (cited at PO Resp. 18). Regardless, as Petitioner and Dr. Bederson explain, super-liking content creates an association between the super-liking user and the content, distinguishing that user from others. *See* Pet. 25 n.4; Reply 9; Ex. 1002 ¶ 77. Also, a user "can super-like their own content," such that "the user's association with the content [would then be] prominently displayed on other users' news feeds, thus facilitating the user being noticed by other users." *See* Reply 9–10; Ex. 1004 ¶¶ 62–63, 67 ("the present invention allows users to promote their own or their friends' stories"), Figs. 8A–8B (depicting Brynn Shepherd super-liking her own photo story 803). Petitioner further provides a well-reasoned explanation for why a person of ordinary skill in the art would have had reason, based on Andler, to rank users by engagement score and display such scores, which would "incentivize[] them to further engagement and distinguish[] them with higher visibility." *See* Pet. 16–18; Ex. 1002 ¶ 59. Patent Owner does not address Petitioner's arguments regarding the combination with Andler. *See* PO Resp. 18–20.

Finally, we note that Patent Owner made two additional arguments in its Sur-Reply. Petitioner argued at the hearing that those portions of the Sur-Reply constitute improper new argument, and Patent Owner responded that the arguments are "withdrawn." *See* 37 C.F.R. § 42.23(b) ("A sur-reply may only respond to arguments raised in the corresponding reply . . . ."); Tr. 24:19–25, 31:7–12, 36:24–37:13; Ex. 1017, 16, 18. Even if considered, though, we do not find them persuasive.

First, Patent Owner points to the agreed interpretation of "engagement" as "an indication that a user should be distinguished with respect to the content over another user" and argues that

> [u]nder this construction, "engagement" refers to an indication of a user's relationship to a content. Each user may have an engagement with respect to the content, and different engagements among different users reflect different relationships between the content and those users. Consequently, the aggregate or "sum" of engagements across multiple users is meaningless because it does not indicate that any particular user is distinguished with respect to the content relative to other users. Therefore, "number of engagements" in element [1e] is a user's engagement number, not the sum of engagements across multiple users, [and] other users can have different engagement numbers, such that the user is distinguished with respect to the content relative to other users.

Sur-Reply 4. Patent Owner does not point to, and we do not see, any language in claim 1 requiring that the "number of engagements" be performed by a specific user. Limitation [1e] merely recites a "display option configured to receive a request to obtain a number of engagements with respect to the networked content item." Furthermore, under Petitioner's theory, the number of engagements requested to be obtained is not "meaningless" because the super-liking user is seeking to have, and paying for, that particular number of engagements (e.g., future likes or

comments in a CPC or CPA pricing model). *See* Pet. 31–34. And when multiple users super-like a content item requesting different amounts of engagement by other users, they are distinguishable from each other and can be ranked like in Andler, which would have been advantageous for the reasons explained by Petitioner. *See id.* at 16–18, 29–34.

Second, Patent Owner argues that the language of limitation [1e] indicates that the display option "allow[s] a user to select a desired number of engagements. When the user makes this selection, the system receives a corresponding request to retrieve that specified number of engagements[,] which means the desired number of engagements is equal to the number of engagements the system provides." Sur-Reply 5. But "[i]n Fuloria, a user cannot *select* a desired number of 'super-likes' since there is only one 'super-like' button the user can select." *Id.* Patent Owner further contends that "since the interactions (e.g., likes or comments) of other users are beyond the user's control, the user cannot get a desired number of 'super-likes' [and] the display option would be meaningless." *Id.* We disagree. Claim 1 does not recite allowing a user to make a "selection" or receiving a request to "retrieve" a number of engagements, and we find no temporal requirement that the engagements must be immediately obtained, as explained above. Petitioner sufficiently explains how limitation [1e] is taught by Fuloria's super-like, where the user pays for engagements of other users in a CPC or CPA pricing model (e.g., the user paying for a specified number of likes, which are thus not "beyond the [super-liking] user's control"). *See* Pet. 30–34; Sur-Reply 5.

Petitioner's explanation regarding limitation [1e], supported by the testimony of Dr. Bederson, which we credit, is persuasive. *See* Pet. 32–34;

Ex. 1002 ¶¶ 88–92. Based on the full trial record, we find that Fuloria teaches limitation [1e].

c) Disputed Limitation [1f]

Limitation [1f] recites that "a single engagement requires an amount of resources and the first number of engagements was obtained in exchange for a first amount of resource from the first user, and the second number of engagement was obtained in exchange for a second amount of resources from the second user." Petitioner argues that in Fuloria, a user can super-like a content item in exchange for a "predetermined number of credits" to promote that content to other users and facilitate other users' engagement. Pet. 34–36 (quoting Ex. 1004 ¶ 38; citing Ex. 1004 ¶¶ 37, 57–67). Petitioner asserts that it would have been obvious to super-like content where "each engagement (e.g., like, comment) the user seeks to obtain requires an amount of resources (e.g., 10 credits per like)" and for multiple users (e.g., "first" and "second" users) to super-like the same content. *Id.* at 35–36 (citing Ex. 1004 ¶¶ 38, 57) (emphasis omitted).

Patent Owner refers to its earlier arguments regarding limitation [1e] and contends that "since Fuloria quantizes the resource, but does not quantize the 'super-like,' a user [cannot] obtain a number of engagements in exchange for a[n] amount of resource." PO Resp. 20–21; Sur-Reply 7. We disagree. As explained above, a user in Fuloria requests to obtain a "number of engagements" by super-liking a content item, which promotes the content item and causes other users to engage with it. *See supra* Section II.D.3.b. The super-liking user may obtain those engagements by paying for them in, for example, a CPC or CPA pricing model. *See id.* We find that

Fuloria teaches limitation [1f], for the reasons stated by Petitioner. *See* Pet. 34–36; Ex. 1002 ¶¶ 93–94.

d) Disputed Limitation [1h]

Limitation [1h] recites "receiv[ing], via the user interface, an indication to obtain a third number of engagements relating to the networked content item from a third user different from the user that authored the networked content item, the first user, and the second user." Petitioner argues that Fuloria's "super-like functionality is available to users of the system generally," so a "third" user may super-like a content item just like a "first" or "second" user, in the manner described above. Pet. 36–37 (citing Ex. 1004 ¶¶ 6–8, 36 ("the user may sponsor content objects created by that user or other users"), 37–38, 57, 64–67, Figs. 8–9).

Patent Owner again argues that a user in Fuloria does not "obtain a number of engagements" because "the user interface only shows an unquantized 'super-like.'" PO Resp. 21–22 (emphasis omitted); Sur-Reply 7–8. We disagree and find that Fuloria teaches limitation [1h], for the reasons stated by Petitioner and explained above. *See* Pet. 36–37; Ex. 1002 ¶¶ 96–97; *supra* Section II.D.3.b.

e) Disputed Limitation [1i]

Limitation [1i] recites "determin[ing] a third amount of resources required to obtain the third number of engagements by multiplying the amount of resources required for a single engagement with the third number." Petitioner argues that Fuloria teaches allowing a super-like in exchange for resources and it would have been obvious to have "each engagement (e.g., like, comment) the user seeks to obtain require[] an

amount of resources (e.g., 10 credits per like)." Pet. 37–38 (citing Ex. 1004 ¶¶ 37–38, 57–67). As support, Petitioner cites Fuloria's teaching that a super-like may be priced "in terms of cost per unit (e.g. . . . CPA), which would require and render obvious multiplication by the 'units' to calculate a total cost." *Id.* at 38 (citing Ex. 1004 ¶ 38). "For example, if a user seeks to obtain 20 likes and 1 like is 10 credits, the system can determine the total number of credits required by multiplying 20 x 10 to arrive at a cost of 200 credits." *Id.*

Patent Owner again argues that in Fuloria, "a user can only obtain [an] unquantified 'super-like.'" PO Resp. 22–24; Sur-Reply 8–9. Patent Owner disputes Petitioner's example because Fuloria discloses displaying a confirmation dialog box for a super-like after the user has liked the content. PO Resp. 23 (citing Ex. 1004 ¶ 37). Thus, unlike a super-like, which requires payment in exchange, "obtaining [a] 'like' need[s] no resource." *Id.* at 24. Patent Owner's argument, however, misstates Petitioner's position. Petitioner does not map a like in Fuloria to the claimed request to "obtain" a number of engagements, but rather the super-like in Fuloria, which spurs other users to later engage with the content item. *See* Pet. 37–38; Reply 13. As explained above, we agree with Petitioner that a user can request to obtain a "number of engagements" of other users by super-liking a content item, paying for such engagements of the other users in, for example, a CPC or CPA pricing model. *See supra* Section II.D.3.b; Reply 13. We find that Fuloria teaches limitation [1h], for the reasons stated by Petitioner. *See* Pet. 37–38; Ex. 1002 ¶¶ 98–99.

f) Conclusion

Based on all of the evidence of record, we determine that Petitioner has proven, by a preponderance of the evidence, that claim 1 would have been obvious over Fuloria and Andler under 35 U.S.C. § 103.

4. Independent Claim 13

Independent claim 13 is similar to claim 1, but recites a method comprising the steps that the one or more physical processors of claim 1 are programmed to do. Petitioner refers to its earlier arguments regarding claim 1. Pet. 47. Patent Owner does so as well. PO Resp. 25. We disagree with Patent Owner's arguments for the reasons explained above. *See supra* Section II.D.3. In view of those reasons and in light of Petitioner's arguments and supporting evidence, we determine that Petitioner has proven, by a preponderance of the evidence, that claim 13 also would have been obvious over Fuloria and Andler under 35 U.S.C. § 103. *See* Pet. 15–43, 47; Ex. 1002 ¶¶ 54–106, 112–123.

5. Dependent Claims 2, 3, 5, 6, 14, 15, 17, and 18

Patent Owner does not argue dependent claims 2, 3, 5, 6, 14, 15, 17, and 18 separately from their respective parent claims 1 and 13. PO Resp. 25 (arguing that the claims would not have been obvious "for at least the same reasons" argued for parent claims 1 and 13). We disagree with Patent Owner's arguments regarding parent claims 1 and 13 for the reasons explained above. *See supra* Sections II.D.3–4. We have reviewed Petitioner's contentions and supporting evidence, including the testimony of Dr. Bederson, and determine that Petitioner has proven, by a preponderance of the evidence, that claims 2, 3, 5, 6, 14, 15, 17, and 18 would have been

obvious over Fuloria and Andler under 35 U.S.C. § 103, for the reasons stated by Petitioner. *See* Pet. 43–47; Ex. 1002 ¶¶ 107–111, 124–127.

E. Alleged Obviousness Based on Fuloria, Andler, and WO '100 (Claims 11 and 23)

Independent claim 11 is similar to claim 1, but, for example, rather than reciting an indication received from a third user as in limitation [1h], recites in limitation [11g] that "the indication to obtain the first plurality of engagements comprises an indication to obtain the first plurality of engagements *together with at least a third user*, different from the user, the first user, and the second user" (emphasis added). *See* Pet. 48. Independent claim 23 is a method claim similar to claim 11. *See id.* Petitioner argues that WO '100 teaches that "multiple users can 'join forces' or 'team up' to elevate a particular piece of content so that it will be more likely to be interacted with by a high profile user," and that it would have been obvious to incorporate such functionality into the combined system of Fuloria and Andler to, for example, "allow users to combine resources and their respective influence in order to increase engagement with respect to a piece of content" and increase their chances of being noticed. *Id.* at 48–54 (citing Ex. 1011, codes (54), (57), ¶¶ 2–3, 13, 57–61, 69, 88, 91). Petitioner refers to its earlier arguments regarding claim 1 for many of the other limitations of the claims. *Id.* at 50–54.

Patent Owner likewise refers to its earlier arguments regarding limitations [1e] and [1h], and argues that WO '100 is not relied upon for the limitations allegedly missing in Fuloria and Andler. PO Resp. 25–29; Sur-Reply 11–12. We disagree with Patent Owner's arguments for the reasons explained above. *See supra* Section II.D.3.b, II.D.3.d. We also note

that, unlike claims 1 and 13, which recite receiving an indication to obtain a "number of engagements," claims 11 and 23 instead recite a "plurality of engagements." Thus, to the extent Patent Owner's quantization arguments are premised on the term "number" in the claims, we do not agree with them for that reason as well. *See* Reply 14.

We determine that Petitioner has proven, by a preponderance of the evidence, that claims 11 and 23 would have been obvious based on Fuloria, Andler, and WO '100 under 35 U.S.C. § 103, for the reasons stated by Petitioner. *See* Pet. 47–54; Ex. 1002 ¶¶ 128–163.

F. Alleged Obviousness Based on Fuloria, Andler, and Bartholomew (Claims 12 and 24)

Independent claim 12 is similar to the other challenged independent claims, but, for example, recites in limitations [12l] and [12m] (emphasis added):

> obtain[ing] a request from at least a third user to *donate* an amount of resources from a second user account balance associated with the third user to the user account balance; and
>
> increment[ing] the user account balance based on the request from the third user to *donate* the amount of resources from the second user account balance.

See Pet. 55. Independent claim 24 is a method claim similar to claim 12. *See id.* Petitioner argues that Bartholomew teaches "a system that can be used with or as part of a social network . . . in which a user can transfer credits (resources) to other users" for free, and that it would have been obvious to incorporate such functionality into the combined system of Fuloria and Andler to, for example, "permit users to help their friends," "allow a user closing down an account to make use[] of accumulated credits

by transferring them to a friend," "allow a user to transfer credits between his or her multiple accounts," or "allow one use[r] to encourage another user to make donations by gifting them with resources to be able to do so." *Id.* at 55–60 (citing Ex. 1012 ¶¶ 300–301, 309, 312) (emphasis omitted). Petitioner refers to its earlier arguments regarding claims 1 and 11 for many of the other limitations of the claims. *Id.* at 57–60.

Patent Owner likewise refers to its earlier arguments regarding limitations [11d] and [11f] (for which Patent Owner referred to its arguments regarding limitations [1e] and [1h]), and argues that Bartholomew is not relied upon for the limitations allegedly missing in Fuloria and Andler. PO Resp. 29–32; Sur-Reply 12. We disagree with Patent Owner's arguments for the reasons explained above. *See supra* Section II.D.3.b, II.D.3.d. We also note that, unlike claims 1 and 13, which recite receiving an indication to obtain a "number of engagements," claims 12 and 24 instead recite a "plurality of engagements." Thus, to the extent Patent Owner's quantization arguments are premised on the term "number" in the claims, we do not agree with them for that reason as well. *See* Reply 14.

We determine that Petitioner has proven, by a preponderance of the evidence, that claims 12 and 24 would have been obvious based on Fuloria, Andler, and Bartholomew under 35 U.S.C. § 103, for the reasons stated by Petitioner. *See* Pet. 55–60; Ex. 1002 ¶¶ 164–198.

G. Additional Allegations of Obviousness Based on Fuloria, Andler, and Other References (Claims 4, 7–10, 16, and 19–22)

Petitioner contends that claims 4 and 16 are unpatentable over Fuloria, Andler, and Kirk, and claims 7–10 and 19–22 are unpatentable over Fuloria, Andler, and Cheung, under 35 U.S.C. § 103. Pet. 60–71. For example,

Petitioner relies on Kirk for its teachings pertaining to awarding resources to users based on activity on a social media platform, and on Cheung for its teachings regarding determining an amount of resources to obtain a particular ranking among users. *See id.* Patent Owner does not argue dependent claims 4, 7–10, 16, and 19–22 separately, instead referring to its arguments regarding parent claims 1 and 13, and arguing that Kirk and Cheung are not relied upon for the limitations allegedly missing in Fuloria and Andler. *See* PO Resp. 33–34; Sur-Reply 12–14. We disagree with Patent Owner's arguments regarding parent claims 1 and 13 for the reasons explained above. *See supra* Sections II.D.3–4. We have reviewed Petitioner's contentions and supporting evidence, including the testimony of Dr. Bederson, and determine that Petitioner has proven, by a preponderance of the evidence, that claims 4, 7–10, 16, and 19–22 would have been obvious under 35 U.S.C. § 103, for the reasons stated by Petitioner. *See* Pet. 60–71; Ex. 1002 ¶¶ 199–227.

III. CONCLUSION

Petitioner has demonstrated, by a preponderance of the evidence, that claims 1–24 of the '687 patent are unpatentable on the bases set forth in the following table.[4] In summary:

Claim(s)	35 U.S.C. §	Reference(s)/ Basis	Claim(s) Shown Unpatentable	Claim(s) Not Shown Unpatentable
1–3, 5, 6, 13–15, 17, 18	103	Fuloria, Andler	1–3, 5, 6, 13–15, 17, 18	
11, 23	103	Fuloria, Andler, WO '100	11, 23	
12, 24	103	Fuloria, Andler, Bartholomew	12, 24	
4, 16	103	Fuloria, Andler, Kirk	4, 16	
7–10, 19–22	103	Fuloria, Andler, Cheung	7–10, 19–22	
Overall Outcome			1–24	

[4] Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this decision, we draw Patent Owner's attention to the April 2019 Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding. *See* 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. *See* 37 C.F.R. § 42.8(a)(3), (b)(2).

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that claims 1–24 of the '687 patent are determined to be unpatentable; and

FURTHER ORDERED that, because this is a Final Written Decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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