

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC

Petitioner

v.

EscapeX IP LLC

(record) Patent Owner

Patent No. 10,474,687

DECLARATION OF DR. BENJAMIN B. BEDERSON

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I. ENGAGEMENT AND COMPENSATION

1. My name is Benjamin B. Bederson (Ex. 1003). I have been retained by Google LLC for the purpose of providing my opinion with respect to the unpatentability of U.S. Pat. No. 10,474,687 (“the ’687 patent”). I am being compensated for my time in preparing this declaration at my standard hourly rate, and my compensation is not dependent upon my opinions or the outcome of the proceedings. My curriculum vitae is attached as Ex. 1003.

II. QUALIFICATIONS

2. I received a Bachelor of Science degree in Computer Science with a minor in Electrical Engineering from Rensselaer Polytechnic Institute (“RPI”) in 1986. I received a Master of Science degree and a Ph.D. in Computer Science from New York University (“NYU”) in 1989 and 1992, respectively.

3. Since 1998, I have been a Professor of Computer Science at the University of Maryland (“UMD”), where I have had joint appointments at the Institute for Advanced Computer Studies and the College of Information Studies (Maryland’s “iSchool”) and am currently Professor Emeritus. I was also Associate Provost of Learning Initiatives and Executive Director of the Teaching and Learning Transformation Center from 2014 to 2018. I am a member and previous director of the Human-Computer Interaction Lab (“HCIL”), the oldest and one of the best known Human-Computer Interaction research groups in the country.

4. I am also co-founder and co-director of the International Children's Digital Library ("ICDL"), a web site launched in 2002 that provides the world's largest collection of freely available online children's books from around the world with an interface aimed to make it easy for children and adults to search and read children's books online. I was also co-founder and Chief Scientist of Zumobi, Inc. from 2006 to 2014, a Seattle-based startup that is a publisher of content applications and advertising platforms for smartphones. I was also co-founder and prior Chief Technology Officer of Hazel Analytics, a data analytics company whose product sends alerts in warranted circumstances. In addition, I have for more than 25 years consulted for numerous companies in the area of user interfaces, including Logitech, Microsoft, the Palo Alto Research Center, Sony, Lockheed Martin, and NASA Goddard Space Flight Center.

5. For more than 30 years, I have studied, designed, and worked in the field of computer science and human-computer interaction. My experience includes 30 years of teaching and research, with research interests in human-computer interaction and the software and technology underlying today's interactive computing systems. This includes the design and implementation of user interfaces and software applications using a wide range of technologies including web servers and websites, databases, embedded systems, and mobile devices, including smart phones and PDAs. I have combined my hardware and software skills throughout my

career in Human-Computer Interface research, building various interactive electrical and mechanical systems that couple with software to provide an innovative user experience.

6. At UMD, my research has been in the area of Human-Computer Interaction (“HCI”), a field that relates to the development and understanding of computing systems to serve users’ needs. Researchers in this field are focused on making universally usable, useful, efficient, and appealing systems to support people in their wide range of activities. My approach is to balance the development of innovative technology that serves people’s practical needs. Example systems following this approach that I have built include Pad++ (1994 software for zoomable user interfaces), KidPad (1997 software to support children collaboratively writing stories), PadPrints (1998 software to graphically show interactive web browsing histories), PhotoMesa (2001 software for end users to browse personal photos), Pocket PhotoMesa (2004 software for browsing of personal photos on a mobile device), DateLens (2002 software for end users to use their mobile devices to efficiently access their calendar information), LaunchTile (2005 “home screen” software for mobile devices to allow users to navigate apps in a zoomable environment), SpaceTree (2001 software for end users to efficiently browse very large hierarchies), ICDL (as described above), and StoryKit (a 2009 iPhone app for children to create stories).

7. My work has been published extensively in more than 160 technical publications, and I have given about 100 invited talks, including 9 keynote lectures. I have won a number of awards including the Janet Fabri Memorial Award for Outstanding Doctoral Dissertation for my Ph.D. work in robotics and computer vision as well as the Brian Shackel Award for “outstanding contribution with international impact in the field of HCI” in 2007, and the Social Impact Award in 2010 from Association for Computing Machinery’s (“ACM”) Special Interest Group on Computer Human Interaction (“SIGCHI”). ACM is the primary international professional community of computer scientists, and SIGCHI is the primary international professional HCI community. I have been honored by both professional organizations. I am an “ACM Distinguished Scientist,” which “recognizes those ACM members with at least 15 years of professional experience and 5 years of continuous Professional Membership who have achieved significant accomplishments or have made a significant impact on the computing field.” I am a member of the “CHI Academy,” which is described as follows: “The CHI Academy is an honorary group of individuals who have made substantial contributions to the field of human-computer interaction. These are the principal leaders of the field, whose efforts have shaped the disciplines and/or industry, and led the research and/or innovation in human-computer interaction.”

8. The criteria for election to the CHI Academy are: (1) cumulative

contributions to the field; (2) impact on the field through development of new research directions and/or innovations; and (3) influence on the work of others. I have received two “Test of Time” awards from IEEE InfoVis for my 2001 and 2002 work on visualizing hierarchies, including those containing digital photos.

9. I have appeared on radio shows numerous times to discuss issues relating to my areas of expertise. My work has been discussed and I have been quoted by mainstream media around the world over 120 times, including by the NEW YORK TIMES, the WALL STREET JOURNAL, the WASHINGTON POST, NEWSWEEK, the SEATTLE POST-INTELLIGENCER, the INDEPENDENT, LE MONDE, NPR’s All Things Considered, NEW SCIENTIST MAGAZINE, and MIT’s TECHNOLOGY REVIEW.

10. I have designed, programmed, and publicly deployed dozens of user-facing software products that have cumulatively had millions of users. I am the co-inventor of 14 U.S. patents and 20 U.S. patent applications.

III. SUMMARY OF OPINIONS

11. In my opinion, the challenged claims are rendered obvious by the cited prior art, as summarized below:

Ground 1: Claims 1-3, 5-6, 13-15, and 17-18 are obvious over Fuloria in view of Andler;

Ground 2: Claims 11 and 23 are obvious over Fuloria in view of Andler,

further in view of WO '100;

Ground 3: Claims 12 and 24 are obvious over Fuloria in view of Andler, further in view of Bartholomew;

Ground 4: Claims 4 and 16 are obvious over Fuloria and Andler, further in view of Kirk; and

Ground 5: Claims 7-10 and 19-22 are obvious in view of Fuloria and Andler, further in view of Cheung.

IV. MATERIALS REVIEWED

12. In forming my opinions, I have relied on my knowledge of the field and my experience, and have specifically reviewed the following exhibits:

Exhibit No.	Description
1001	U.S. Patent No. 10,474,687 B2 (“ the ’687 patent ”).
1004	U.S. Pat. App. Pub. 2013/0030905 A1 (“ Fuloria ”).
1005	U.S. Pat. App. Pub. 2014/0025688 A1 (“ Andler ”).
1006	U.S. Pat. App. Pub. 2012/0203831 A1 (“ Schoen ”).
1007	U.S. Pat. App. Pub. 2012/0233009 A1 (“ Fougner ”).
1008	U.S. Pat. App. Pub. 2015/0058103 A1 (“ Kirk ”).
1009	U.S. Patent No. 7,835,943 B2 (“ Cheung ”).
1010	File History of U.S. Application No. 15/368,972.
1011	WO 2015/089100 A1 (“ WO ’100 ”).
1012	U.S. Pat. App. Pub. 2016/0314501 A1 (“ Bartholomew ”).

1013	Provisional application No. 62/137,701.
1014	Assignment Abstract of Title for Application No. 13/194,507.
1015	<i>EscapeX IP, LLC v. Google LLC</i> , Civil Action No. 1:23-cv-10839, Complaint and Exhibit B (S.D.N.Y., Dec.13, 2023).
1016	<i>EscapeX IP, LLC v. Google LLC</i> , Civil Action No. 1:23-cv-10839, Exhibit B to Declaration of Jeff M. Barron in support of Motion to Dismiss (S.D.N.Y., March 11, 2024).

V. UNDERSTANDING OF THE RELEVANT LAW

13. I have the following understanding of the applicable law:

A. Anticipation

14. I understand that a claim in an issued patent can be unpatentable if it is anticipated. I understand that “anticipation” means that there is a single prior art reference that discloses every element of the claim, arranged in the way required by the claim.

15. I understand that an anticipating prior art reference must disclose each of the claim elements expressly or inherently. I understand that “inherent” disclosure means that the claim element, although not expressly described by the prior art reference, must necessarily be present based on the disclosure. I understand that a mere probability that the element is present is not sufficient to qualify as “inherent disclosure.”

B. Obviousness

16. I understand that a claim in an issued patent can be unpatentable if it is

obvious. Unlike anticipation, obviousness does not require that every element of the claim be in a single prior art reference. Instead, it is possible for claim elements to be described in different prior art references, so long as there is motivation or sufficient reasoning to combine the references, and a reasonable expectation of success in achieving what is set forth in the claims.

17. I understand that a claim is unpatentable for obviousness if the differences between the claimed subject matter and the prior art are such that the subject matter as a whole would have been obvious at the time the alleged invention was made to a person having ordinary skill in the art to which said subject matter pertains.

18. I understand, therefore, that when evaluating obviousness, one must consider obviousness of the claim “as a whole”. This consideration must be from the perspective of the person of ordinary skill in the relevant art, and that such perspective must be considered as of the “time the invention was made.”

19. The level of ordinary skill in the art is discussed in ¶¶27-29 below.

20. The relevant time frame for obviousness, the “time the invention was made”, is discussed in ¶¶30-31, below.

21. I understand that in considering the obviousness of a claim, one must consider four things. These include the scope and content of the prior art, the level of ordinary skill in the art at the relevant time, the differences between the prior art

and the claim, and any “secondary considerations.”

22. I understand that “secondary considerations” include real-world evidence that can tend to make a conclusion of obviousness either more probable or less probable. For example, the commercial success of a product embodying a claim of the patent could provide evidence tending to show that the claimed invention is not obvious. In order to understand the strength of the evidence, one would want to know whether the commercial success is traceable to a certain aspect of the claim not disclosed in a single prior art reference (*i.e.*, whether there is a causal “nexus” to the claim language). One would also want to know how the market reacted to disclosure of the invention, and whether commercial success might be traceable to things other than innovation, for example the market power of the seller, an advertising campaign, or the existence of a complex system having many features beyond the claims that might be desirable to a consumer. One would also want to know how the product compared to similar products not embodying the claim. I understand that commercial success evidence should be reasonably commensurate with the scope of the claim, but that it is not necessary for a commercial product to embody the full scope of the claim.

23. Other kinds of secondary considerations are possible. For example, evidence that the relevant field had a long-established, unsolved problem or need that was later provided by the claimed invention could be indicative of non-

obviousness. Evidence that others had tried, but failed to make an aspect of the claim might indicate that the art lacked the requisite skill to do so. Evidence of copying of the patent owner's products before the patent was published might also indicate that its approach to solving a particular problem was not obvious. Evidence that the art recognized the value of products embodying a claim, for example, by praising the named inventors' work, might tend to show that the claim was non-obvious.

24. I further understand that prior art references can be combined where there is an express or implied rationale to do so. Such a rationale might include an expected advantage to be obtained, or might be implied under the circumstances. For example, a claim is likely obvious if design needs or market pressures existing in the prior art make it natural for one or more known components to be combined, where each component continues to function in the expected manner when combined (*i.e.*, when there are no unpredictable results). A claim is also likely unpatentable where it is the combination of a known base system with a known technique that can be applied to the base system without an unpredictable result. In these cases, the combination must be within the capabilities of a person of ordinary skill in the art.

25. I understand that when considering obviousness, one must not refer to teachings in the specification of the patent itself. One can, however, refer to portions of the specification admitted to being prior art, including the "BACKGROUND"

section. Furthermore, a lack of discussion in the patent specification concerning how to implement a disclosed technique can support an inference that the ability to implement the technique was within the ordinary skill in the prior art.

26. I understand that claims can be found unpatentable for other reasons as well, but note that I was not asked to consider whether the challenged claims are unpatentable for lack of written description, enablement, or indefiniteness.

VI. LEVEL OF ORDINARY SKILL IN THE ART

27. In my opinion, the relevant art was that of networked social content and virtual environments. (Ex. 1001, Abstract, 1:20-23).

28. In my opinion, the level of ordinary skill encompassed a person with 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.

29. I believe I would meet this definition, and would have met this definition in the relevant timeframe. My testimony is offered from this perspective, even if it does not specifically refer to the perspective of a person of ordinary skill in the art in every instance.

VII. RELEVANT TIMEFRAME FOR DETERMINING OBVIOUSNESS

30. I understand that obviousness must be evaluated "at the time of the

invention.” From the cover pages of the ’687 patent, I can see that the first application for a patent to which the ’687 patent claims priority was filed in the United States on May 26, 2016.

31. For the purpose of this declaration, I will analyze obviousness in the time frame immediately prior to this date, although my testimony is usually applicable to a longer period of time before May 26, 2016. My testimony is directed to this timeframe, even if I do not always use a past tense.

VIII. TECHNICAL INTRODUCTION

A. The ’687 Patent Disclosure

32. The ’687 patent is directed to business methods carried out in the context of social media platforms. Social media platforms, such as Twitter and Facebook, were already in widespread use when the first application leading to the ’687 patent was filed (May 2016). (Ex. 1001, 1:27-31, 7:15-25). At that time, social media platforms, per the ’687 patent’s own description, already provided a “vast amount of content,” and allowed users to interact with that content by commenting on and “liking” posts. (Ex. 1001, 1:27-44). “Liking”, however, was limited (according to the ’687 patent) because each user could only “like” a content item once. (Ex. 1001, 1:33-44). To address this purported limitation, the ’687 patent suggested allowing users to like content an unlimited number of times, and to pay for that ability. (Ex. 1001, 2:1-11). The ’687 patent discusses several variations on

this theme, including publishing rankings of users by the number of times they have engaged with content. (Ex. 1001, Abstract, 3:1-20). Beyond these basic business notions, however, the '687 patent provides only generic technical disclosure. (Ex. 1001, Figs. 1-2, 6:4-8:10, 15:34-16:20).

B. Overview of Challenged Claims

33. The '687 patent issued with 24 claims, with claims 1, 11, 12, 13, 23, and 24 being independent. Claims 1-12 are system claims and claims 13-24 are method claims that correspond to the system claims. (Ex. 1001). Independent claim 1 is reproduced here:

1. A system for aggregating content and facilitating uncapped engagement of the content, the system comprising:
a computer system comprising one or more physical processors programmed by computer program instructions to:
obtain a networked content item authored by a user;
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 a display option configured to receive a request to obtain a number of engagements with respect to the networked content item, 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;

provide, via a network, the user interface;

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;

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;

debit the third amount of resources from a user account balance associated with the third user;

store, in a database accessible to the computer system, an association between the third number of engagements and the third user; and

provide, in the user interface, an indication of the third number of engagements.

(Ex. 1001). Broadly speaking, portions of the claims relate to a standard social-media environment. Users are further given the option to spend “resources” to

request “engagements” (where engagements are defined broadly in the specification as “an indication that a user should be distinguished with respect to the content over another user,” Ex. 1001, 5:53-55). The engagements are said to be “uncapped.” The claims further require the number of engagements to be displayed for certain users. The claims do not require that the displayed engagements actually be performed by a particular user—rather, the claims state more broadly that they need merely be “obtained by” a user.

C. Overview of Prosecution History

34. The ’687 patent issued from Application Ser. No. 15/368,972, filed on December 5, 2016 and claiming the benefit of an application filed on May 26, 2016.

35. During prosecution, the Examiner rejected the pending claims for double patenting and as anticipated by or obvious over the “Bullock”¹ prior art (Ex. 1010, pp. 186-196), but indicated that certain dependent claims would be allowable if re-written not to depend from rejected claims. (Ex. 1010, p. 196). In response, Applicant amended the claims and argued that the amended claims were patentable in part as follows:

“....Bullock generally relates to enabling a user to pay to **have the user’s comment distinguished from other comments** by changing the comment font, highlighting the comment, or placing the

¹ U.S. Pat. App. Pub. 2010/0312702 A1.

comment at a particular position in the comment display. Bullock therefore aims to have comments on an article noticed by others.

However, in contrast, the claimed invention enables users to show an interest in content in an uncapped manner **irrespective of comments**. In particular, Bullock does not disclose, teach or suggest a computer system that enables a user to obtain a plurality of engagements separate from the comments with respect to content and provides indications of those engagements separate from the comments as well.”

(Ex. 1010, pp. 175-176)(Emphasis added). The Examiner then issued a final office action, rejecting Applicant’s arguments attempting to distinguish Bullock. (Ex. 1010, pp. 103-113). In response, Applicant further amended the claims and argued as follows regarding Bullock:

“At best, Bullock describes using a bidding system to outbid other users. However, **Bullock is apparently silent with respect to providing an uncapped number of engagements in exchange for an amount of resources required for a single engagement multiplied by the number of engagements desired**. The claimed system enables users to obtain such any number of engagements so long as the user provides an amount of resources multiplied by that number. The foregoing claim features are wholly different than a bidding system to place a comment in a particular position or paying for an ability to change the font or other aspect of a comment as described in Bullock.”

(Ex. 1010, pp. 94-96)(Emphasis added). In response, the Examiner withdrew the prior-art rejections.

36. After an abandonment, petition to revive, and the filing of a terminal disclaimer, the claims were allowed. The Examiner provided the following Reasons for Allowance:

“[T]he cited prior art references teach some of the limitations of the independent claims. The Bullock reference teaches enabling a user to place a bid and pay for their comment to be placed in a distinctive manner compared to other comments about a blog post. The Broder reference teaches providing the user’s name in the comment. The Boston reference teaches providing credit to a user based upon their activity in the system. However, the cited prior art references do not teach all of the limitations amended on 8/20/18. The Examiner was unable to find a prior art reference that teaches all of the limitations of the independent claims or that would have been obvious to combine with other prior art to teach all of the limitations of the independent claims.”

(Ex. 1010, pp. 18-19). The Examiner appears to have considered a limited amount of prior art during the initial examination of the ’687 patent. (Ex. 1001, (56)). The Examiner did not , however, have the benefit of the prior art cited herein, which as set forth in detail in the Grounds below, renders obvious the challenged claims.

IX. CLAIM INTERPRETATION

A. BACKGROUND ON CLAIM INTERPRETATION

37. I understand that it is sometimes necessary or useful for claim terms in a patent to be further explained or interpreted (“construed”). I understand that in the present proceeding, the Board applies the same claim construction standard used by District Courts in actions involving the validity or infringement of a patent. This involves construing claim terms in accordance with the ordinary and customary meaning of such terms, as understood by one of ordinary skill in the art, in light of the claim language, the technical disclosure of the patent (*i.e.*, the specification) and the prosecution history or “file history” of correspondence with the United States Patent and Trademark Office (USPTO) pertaining to the patent.

38. I further understand that the file history of a parent patent application can be relevant to the claim construction of claim terms appearing in patents that have descended from that parent application.

39. I understand that certain “extrinsic” evidence, such as dictionaries or other prior art, can sometimes be useful to understand the meaning of a claim term. However, I understand that where there is a conflict between any such extrinsic evidence and the patent and patent’s prosecution history, the latter control.

B. CLAIM INTERPRETATION OF THE ’394 PATENT

40. I understand that no claim construction orders have been issued for the ’687 patent.

1. “Engagement”

41. The independent claims use the term “engagement.” To the extent that this term requires construction, in my opinion, it should be construed as “an indication that a user should be distinguished with respect to the content over another user,” according to the definition in the specification. (Ex. 1001, 5:53-55).

X. GROUND 1: CLAIMS 1-3, 5-6, 13-15, AND 17-18 ARE OBVIOUS OVER FULORIA IN VIEW OF ANDLER

42. In my opinion, claims 1-3, 5-6, 13-15, and 17-18 are obvious under AIA 35 U.S.C. § 103(a) over U.S. Pat. App. Pub. 2013/0030905 A1 (“Fuloria”)(Ex. 1004) in view of U.S. Pat. App. Pub. 2014/0025688 A1 (“Andler”)(Ex. 1005).

43. I understand that neither Fuloria nor Andler was cited during prosecution of any application leading to the ’687 patent.

A. Effective Prior Art Dates

44. **Fuloria** is a U.S. patent application publication that published on January 31, 2013, and I understand that it is thus prior art.

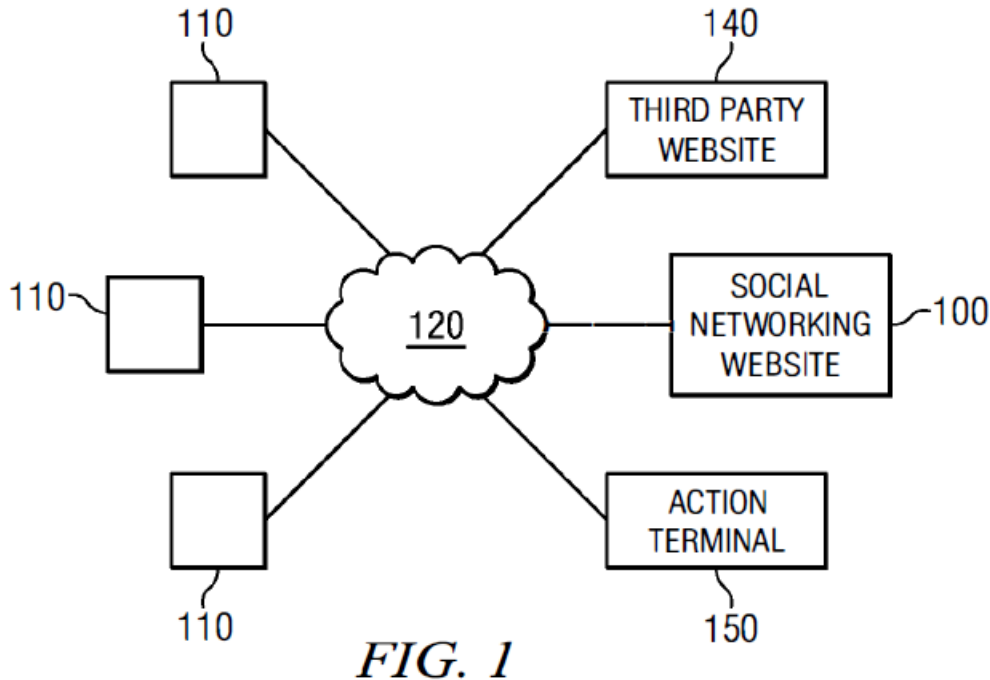
45. **Andler** is a U.S. patent application publication that published on January 23, 2014, and I understand that it is thus prior art.

B. Overview of the Combination

46. In my opinion, the challenged claims are obvious over the combination of Fuloria and Andler.

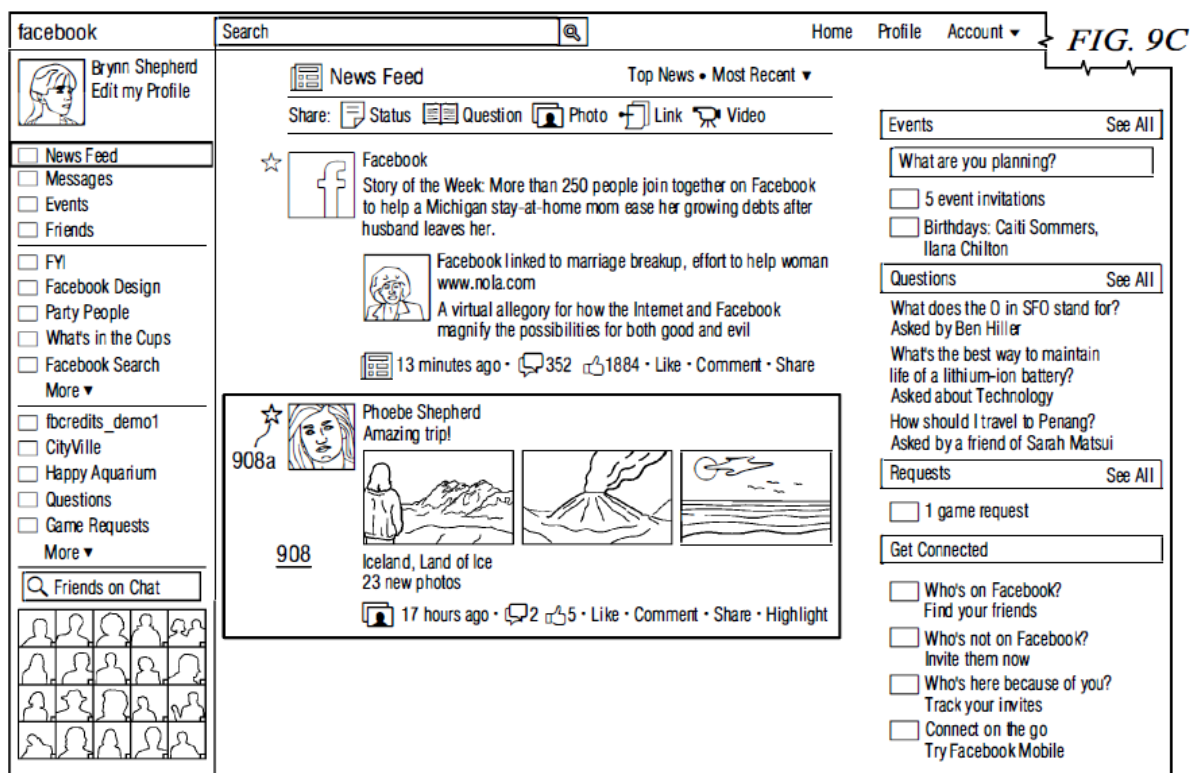
1. Overview of Fuloria

47. Fuloria discloses a social media system, depicted below in Figure 1:



(Ex. 1004, Fig. 2, ¶¶0011, 0028)(See also Ex. 1004, Fig. 6). “The system environment comprises one or more client devices 110, one or more third-party websites 140, a social networking system 100, and a network 120.” (Ex. 1004, ¶0028). Fuloria’s social media system can be, for example, Facebook. (Ex. 1004, Figs. 8-9).

48. Fuloria’s system displays social media content items to users via a social networking website, using for example, a “news feed.” (Ex. 1004, Abstract, ¶¶0004, 0006, 0008, 0027, 0036-0037, Figs. 4, 8-9). An exemplary news feed is depicted below in Figure 9C:



(Ex. 1004, Fig. 9C)

49. Like the '687 patent, Fuloria recognizes the difficulty users might have in distinguishing themselves by “liking” content “in the unending stream of their newsfeed.” (Ex. 1004, ¶0009). Fuloria’s social networking system thus provides users with the option to sponsor posts (their own or other users’), including by means of what Fuloria calls a “super-like.” A “super-like” allows a user to request to feature particular content by clicking a button, which Fuloria describes as a ““super-like’ or promotion button,” “‘highlight’ button” or a “‘feature’ button.” (Ex. 1004, ¶¶0063, 0062, 0065, 0066, 0037, 0038). Using such buttons, a user can super-like a content item in exchange for payment of “credits.” (Ex. 1004, ¶¶0037-0038, 0057-

0067). The “super-liked” content item “may be displayed to other members by pinning the story or content to the top of each other member’s news feed.” (Ex. 1004, ¶0010, 0038, Abstract, ¶0057). An example of a super-liked content can be seen in Figure 9C, reproduced above, where a “star” indicates that the content has been “super-liked” and the content is highlighted and pinned to the top of a news feed. (Ex. 1004, Fig. 9C, ¶0067). Super-liking content increases the visibility of content as well as the likelihood that other users will engage with the content by, for example, liking or commenting on it. (Ex. 1004, ¶¶0037-0039, 0057-0059, 0061-0067, 0008, 0027, Figs. 8-9).

50. In Fuloria, “super-likes” are *uncapped* engagements. A person having ordinary skill in the art (“PHOSITA”) would understand that the user can “super-like” a piece of content multiple times and can pay more to increase the scope of the super-like, *e.g.* to present it for more time, to more people, to present it more often, or to present it such that the super-like produces engagements by others. (Ex. 1004, ¶¶0057, 0038-0039). Fuloria places no upper limit on these actions.

2. Overview of Andler

51. Andler teaches a social media system that can be, for example, Facebook. (Ex. 1005, ¶0049). Andler’s system seeks to encourage engagement with content, and to identify and reward users with the most engagements. (Ex. 1005, ¶¶0022, 0201, 0196, 0188-0190, 0161-0162). To that end, the system calculates

what it refers to as “engagement scores” for each user. (Ex. 1005, ¶¶0163-0164, 0206). An “engagement score,” as explained by Andler, “is based on interactions of each of the one or more first users with [a] selected item of content.” (Ex. 1005, Abstract, ¶¶0164, 0206)(*See also* Ex. 1005, ¶0057)(describing “connecting to an object/piece of content (e.g., song, photograph, video, album, or mix)”). Andler explains that a “user’s engagement score identifies a user’s level of engagement/interaction with [a] . . . resource.” (Ex. 1005, ¶0164)(*See also* Ex. 1005, ¶¶0157, 0022, 0200)(resources can be content items such as “songs, videos, pictures, etc.”).

52. Andler also teaches that a first user’s engagement score can be based on whether *other users* have engaged with an item of content due to the actions of the first user. (Ex. 1005, ¶¶0206, 0162)(*see* Ex. 1005, ¶0062)(describing user engagements). Andler states:

“The engagement score may further [be] based on whether additional users have accessed the item of content based on the interaction of one of the first users, interaction other than consumption of the content (e.g., the creation of a mix that includes or is associated with the item of content), etc. Alternatively or in addition, the engagement score may increase more when additional users have accessed the item of content based on such an interaction compared to an increase of the engagement score resulting from other types of interactions with the item of content.”

(Ex. 1005, ¶¶0206, 0162)(see Ex. 1005, ¶0062)(describing user engagements).

53. Andler further describes *displaying* a list of users, where the users are ranked by their engagement scores with respect to an item of content. (Ex. 1005, ¶¶0208, 0053, claims 6, 8). Andler states:

“At step 706, a subset of the users that have interacted with the item of social content the most is identified. At step 708, the identified subset is displayed. Such a subset may include an identification of a predefined number of first users sorted by highest-to-lowest engagements score (e.g., a list of top fans based on the engagement score). In addition to displaying the identified subset, the logged-in user’s ranking amongst all of the first users (based on engagement score) may be displayed.”

(Ex. 1005, ¶¶0207-0208)(see also Ex. 1005, ¶0053).

3. Overview of the Combination

54. Fuloria teaches a standard social media system that additionally offers users the ability to super-like content in an uncapped manner. Andler teaches calculating engagement scores for each user in a variety of ways, and providing a user interface that displays a ranking of users by engagement.

C. Rationale (Motivation) Supporting Obviousness

55. In my opinion, it would have been obvious 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.

56. Both Fuloria and Andler relate to social media systems and are similar in many respects. Fuloria is a patent application filed by Facebook (Ex. 1014), and both Fuloria and Andler indicate that Facebook is a possible underlying social media platform for their respective methods. (Ex. 1004, Figs. 8A-9C (upper left corner, e.g.))(Ex. 1005, ¶0049). In my opinion, the express suggestion that both references are appropriate for the same commercial system itself provides motivation to combine them.

57. Furthermore, in my opinion, a PHOSITA would have been motivated to use the concepts of Andler's engagement scores and rankings in Fuloria in order to obtain the advantages taught by Andler. Andler teaches first that the use of engagement scores and rankings allows content authors and social media site managers to identify, understand, and reward "top fans," which encourages engagement with a content creator's content (Ex. 1005, ¶¶0022, 0201, 0196, 0188-0190, 0161-0162), thus furthering a content creator's promotional efforts. Andler also teaches that the use of engagement scores and rankings provides an incentive to fans to increase their own status, and thus to have more engagement with particular content. (Ex. 1005, ¶0201). A PHOSITA would have also found the use of Andler's concepts in conjunction with Fuloria's "super-like" obvious and appropriate, because Andler, like Fuloria, contemplates the ability to exchange resources (called "points" in Andler) to boost content. (Ex. 1005, ¶0198).

58. In my opinion, a PHOSITA would specifically have found it obvious to display a ranking by engagement of top users with respect to particular content, as suggested by Andler (Ex. 1005, ¶¶0206-0208), together with a number indicating the level of engagement for each user. For example, it would have been obvious to display each of the top users' engagements scores, the number of engagements obtained, the credits used to obtain them, or the real-world value of such credits. These data were already determined and stored by Fuloria and Andler, and thus readily available (Ex. 1004, ¶¶0005, 0031 (discussing storage of data in general), 0038 (discussing tracking of credits and user accounts, as well as charging by cost per click or cost per action), 0057 (real-world value of credits))(Ex. 1005, Abstract, ¶¶0206 (discussing engagement scores based on engagements by the user or third parties based on the user's actions), 0163-0164 (discussing engagement scores in general)). Furthermore, it was already well-known from Fuloria—and in the social media arts in general—to display a number of engagements for a given piece of content. (*e.g.*, Ex. 1004, Fig. 9A, showing 1884 likes for the top news story, Fig. 8A, showing that two users liked a photo album).

59. Display of any of the engagement scores, the number of engagements obtained, the credits used to obtain them, or the real-world value of such credits for each of several top users would have been obvious based on Andler's teaching that ranking top users and displaying a quantification of their engagement can incentivize

further engagement and provide them with higher visibility (“bragging rights”). (Ex. 1005, ¶¶0201, 0196). This visibility is both to the content creator (who may recognize higher levels of engagement with reciprocal engagement or rewards), or to the community of users. Presenting specific data about engagement (such as the engagement score, number of engagements, credits or money-value of such credits) would have distinguished users (given them “bragging rights”) and allowed users to determine how much engagement would be needed to increase their rank. Users would have desired this in order to more closely associate with famous content creators or popular posts, and to demonstrate to other users their own status (e.g. wealth, clout, etc.), a typical social-media goal. The presentation of such data together with user rankings thus amounts to no more than displaying already-available data on a screen, in a manner that was generally very well-known in the art, and in a way that would obviously have incentivized further engagement—per Andler’s express teachings.

60. In my opinion, the combination further would have been obvious as the application of known techniques (Andler’s) to a known system (Fuloria’s) with predictable results. The claims of the ’687 patent recite essentially no technical matter, nor does the description provide any new means for implementing the business practices of the ’687 patent. In my opinion, the ’687 patent, in fact, relies on the predictable implementation by software of its business concepts. Because,

however, these concepts were already known in the same art, and there would have been no unpredictable result from their combination, they are obvious.

61. This Ground proposes a number of other minor obviousness modifications (relating to, e.g., storing information in a database and multiplying cost per engagement times engagements) that will be explained in context under the claim-mapping section.

62. I note that the Ground relies on as evidence to support certain points patent specifications incorporated into Fuloria, specifically U.S. patent application Ser. No. 13/020,745, which published on August 9, 2012 as U.S. Pat. App. Pub. 2012/0203831 A1 (“**Schoen**”)(Ex. 1006) and U.S. patent application Ser. No. 13/044,506, which published on September 13, 2012 as U.S. Pat. App. Pub. 2012/0233009 A1 (“**Fougner**”)(Ex. 1007). (Ex. 1004, ¶¶0002-0003). Schoen and Fougner each respectively describes similar social networking systems as set forth in Fuloria and contain overlapping subject matter and certain identical figures. (Ex. 1006, Abstract, Figs. 1-3, 8)(Ex. 1007, Abstract, Figs. 1-2, 6). To the extent Patent Owner argues that these specifications are not properly deemed a part of Fuloria’s disclosure, in my opinion, a PHOSITA would have found it obvious to incorporate aspects of the social networking systems described in Schoen and Fougner, respectively, into Fuloria, in view of this incorporation by reference and the references’ similar teachings. A PHOSITA would have recognized that both Schoen

and Fougner describe functionality which is compatible with and easily integrable with Fuloria's systems.

63. Further reasoning concerning the motivation to combine (including for specific dependent claims) is provided below in the claim mapping section, where appropriate.

D. Reasonable Expectation of Success

64. In my opinion, a PHOSITA in the relevant timeframe would have had a reasonable expectation of success combining and using aspects of Fuloria's and Andler's social networking systems and methods as set forth in the manner proposed in the present Ground.

65. In my opinion, the art in the relevant timeframe was predictable. Specifically, in the relevant timeframe (no earlier than 2016), the basic components that made up systems like social network systems had been well-known in the art. In particular, I note that the '687 patent's general and high-level disclosures support this understanding of the relevant art.

E. Graham Factors

66. The **level of ordinary skill** in the art is set forth in ¶¶30-31.

67. The **scope and content of the prior art** are discussed throughout the Ground.

68. The differences between the prior art and the claims are discussed

throughout the Ground.

69. I am not aware of any **secondary considerations** that would make an inference of non-obviousness more likely.

70. This discussion of Graham factors applies to all Grounds.

F. Analogous Art

71. In my opinion, Fuloria and Andler are analogous art because they are in the same field as the '687 patent (social networks), and their methods would have been reasonably pertinent to the problems facing the named inventors, because both references concern social networking and the management and promotion of content on social networks. (Ex. 1004, Title, Abstract, ¶¶0001-0024)(Ex. 1005, Title, Abstract)(Ex. 1001, Title, Abstract).

G. Claim Mapping

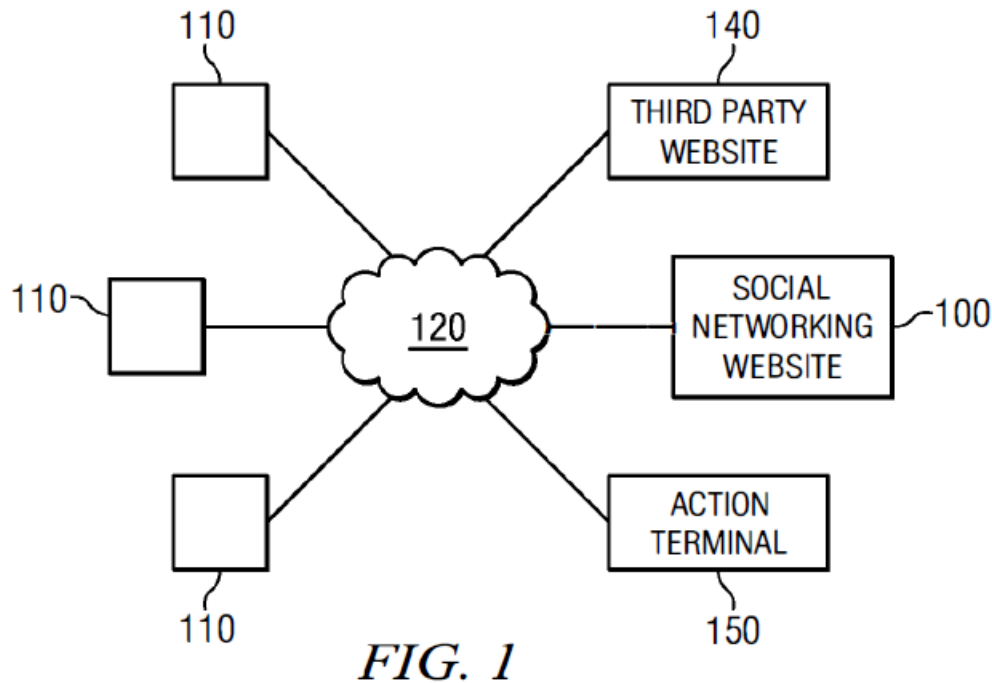
72. This section maps the challenged claims to the relevant disclosures of Fuloria and Andler and the relevant mapping follows the claim text. There is added numbering and lettering in brackets (*e.g.*, 1[a], [1b]) to certain claim elements, to facilitate the discussion.

INDEPENDENT CLAIM 1

“1[a]. A system for aggregating content and facilitating uncapped engagement of the content, the system comprising:”

73. In my opinion, Fuloria in view of Andler renders obvious the claimed

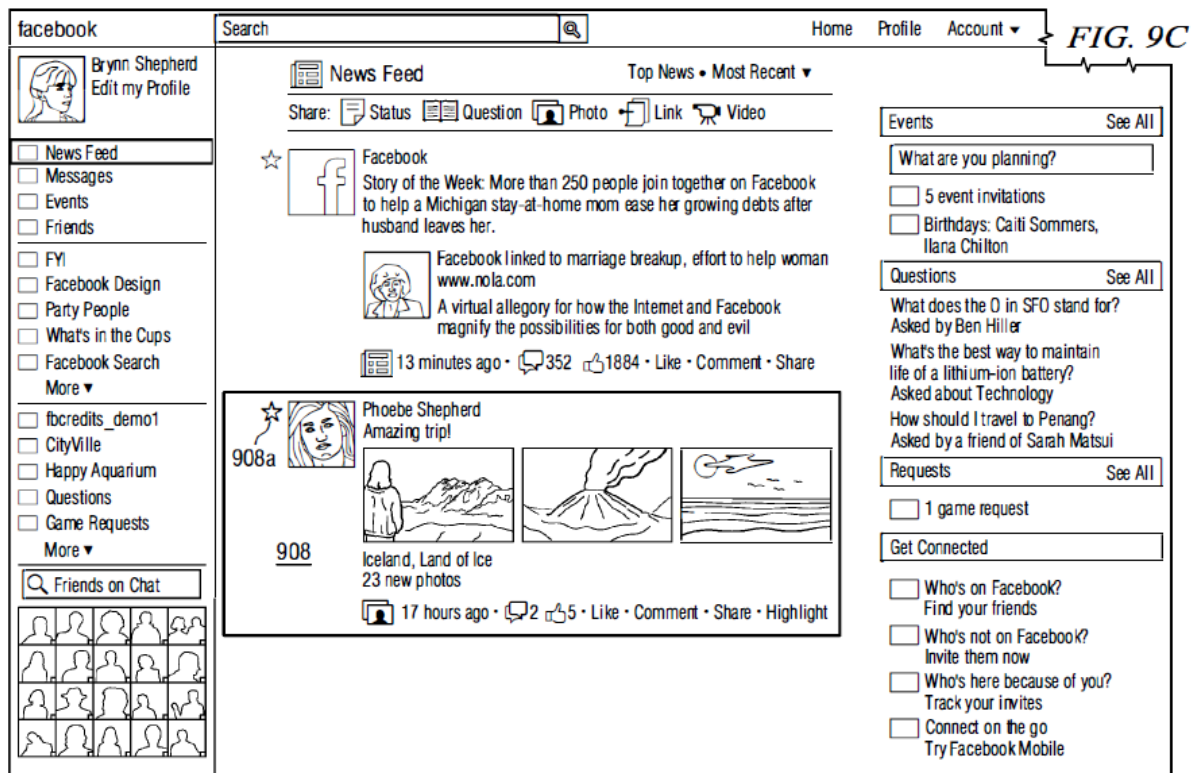
system.² Fuloria discloses a “**system** environment” which hosts a “social networking **system**.” (Ex. 1004, ¶0028). Fuloria’s system is depicted in Figure 1, reproduced here:



(Ex. 1004, Fig. 2, ¶¶0011, 0028)(See also Ex. 1004, Fig. 6). As Fuloria states, “[t]he system environment comprises one or more client devices 110, one or more third-party websites 140, a social networking system 100, and a network 120.” (Ex. 1004, ¶0028). Fuloria’s social networking system can be, for example, Facebook. (Ex. 1004, Figs. 8-9).

² To the extent that the preamble is limiting, in my opinion, it is rendered obvious by the combination.

74. Fuloria's system is further **for aggregating content**. Aggregation occurs because Fuloria's system displays social media content items to users via a social networking website, using for example, a "news feed." (Ex. 1004, Abstract, ¶¶0004, 0006, 0008, 0027, 0036-0037, Fig. 4, Figs. 8-9). An exemplary news feed is depicted below in Figure 9C:



(Ex. 1004, Fig. 9C). Fuloria teaches that “[v]arious pieces of **content** may be **aggregated** into a single news feed.” (Ex. 1004, ¶0006)(*see also* Ex. 1004, ¶0035)(“Activity stream 302 comprises the **aggregate stream of status updates and news stories** for all users of a social network.”). These **content** items can be authored by users, or can be, for example, advertising content. (*See, e.g.*, Ex. 1004,

¶0062).

75. In my opinion, Fuloria's system also **facilitates uncapped engagement** with content. Regarding the **facilitation** of engagement, Fuloria's social networking system can provide a user with the option to feature or promote a content item in return for credits including by means of what it refers to as "super-like." A user can request to feature a content item by clicking a button, which Fuloria describes can be a "'super-like' or promotion button," "'highlight' button" or a "'feature' button." (Ex. 1004, ¶¶0063, 0062, 0065, 0066, 0037, 0038)(*see id.*, ¶0065)("In particular embodiments, 'highlight' button 903a is interchangeable with 'Feature' button 803a or a 'super-like' button."). As Fuloria explains,

"After clicking "Feature" button 803a, social networking system 100 displays dialog box 805 to the user. Dialog box 805 prompts the user as to whether he or she would like to feature the post for 10 credits. Dialog box 805 also includes credit balance 806 and confirmation button 809. The user may click confirmation button 809 to promote the social networking object, in this case photo story 803."

(Ex. 1004, ¶0063). "[T]he user-promoted social networking objects or content may be displayed to other members by pinning the story or content to the top of each other member's news feed (Ex. 1004, ¶¶0010, 0038, 0057, Abstract). An example of a "super-liked" content item can be seen in Figure 9C, reproduced above, where a "star" indicates that the content has been "super-liked" and the content is

highlighted and pinned to the top of a news feed. (Ex. 1004, Fig. 9C, ¶0067). The super-like functionality is described in further detail under claim element [1f].

76. In my opinion, this functionality represents **uncapped engagement** for multiple reasons. First, a user super-liking content is an **engagement** with that content by that user because the user interacts with the content via the super-like.³ The engagement is **uncapped** because Fuloria places *no limitation* on how many times a user can super-like a piece of content, and thus engagement via a super-like is **uncapped**. Nor does it place any limitation on how many credits a user can spend to increase the reach of the content. See claim elements [1e] and [1f] (discussing exchange of resources for promotion of content).

77. Second, when a user “super-like[s]” or promotes a content item in return for an amount of resources, such as credits, this **facilitate[s]** *other users engaging* (e.g., interacting) with that content item by, for example, liking or commenting⁴ on the content. (See, e.g., Ex. 1004, ¶¶0062-0067, 0037, 0038).

³ Super-liking is also an indication that a user should be distinguished with respect to the content over another user because it specifically associates the user with the content and correspondingly promotes the content and that association. (Ex. 1001, 5:53-60).

⁴ Other users ‘liking’ or commenting on content is also an indication that a user

Fuloria places *no limitation* on the degree to which a content item can be promoted—i.e., the amount of resources that can be paid or the possible reach sought for the content item. (Ex. 1004, ¶¶0038, 0058). Multiple different users can also promote the same content item. By allowing users to promote or “super-like” content which also increases engagement with that content by *other users*, Fuloria’s system also **facilitat[es] uncapped engagement** with that content.

“[1b] a computer system comprising one or more physical processors programmed by computer program instructions to:”

78. In my opinion, Fuloria discloses and renders obvious a **computer system comprising one or more physical processors programmed by a computer program to carry out instructions**. Fuloria’s system includes a “**computer system**” which provides the functionality described in Fuloria, and which includes “a **processor**” having “hardware for executing **instructions**, such as those making up a **computer program**.” (Ex. 1004, ¶¶0068-0073, 0078, Fig. 10)(emphases added). Fuloria’s system also contains a “web server” (**computer**

should be distinguished with respect to the content over another user because it specifically associates the user with the content and correspondingly displays that association. (Ex. 1001, 5:53-60).

having **physical processors**) which “links social networking system 100 via network 220 to one or more client devices 210.” (Ex. 1004, ¶¶0031-0032, 0029, Fig. 2, Fig. 1, 0035, 0036, 0046).

79. It would be obvious for Fuloria’s **computer system** to be **programmed** to execute the claimed steps recited below. (See also Ex. 1004, ¶¶0068-0078). Fuloria expressly discloses that its methods can be carried out using software (Ex. 1004, ¶¶0035, 0058, 0068, 0074, 0078), and in the relevant timeframe, this was, in fact, the most obvious way to carry out methods in a social media system.

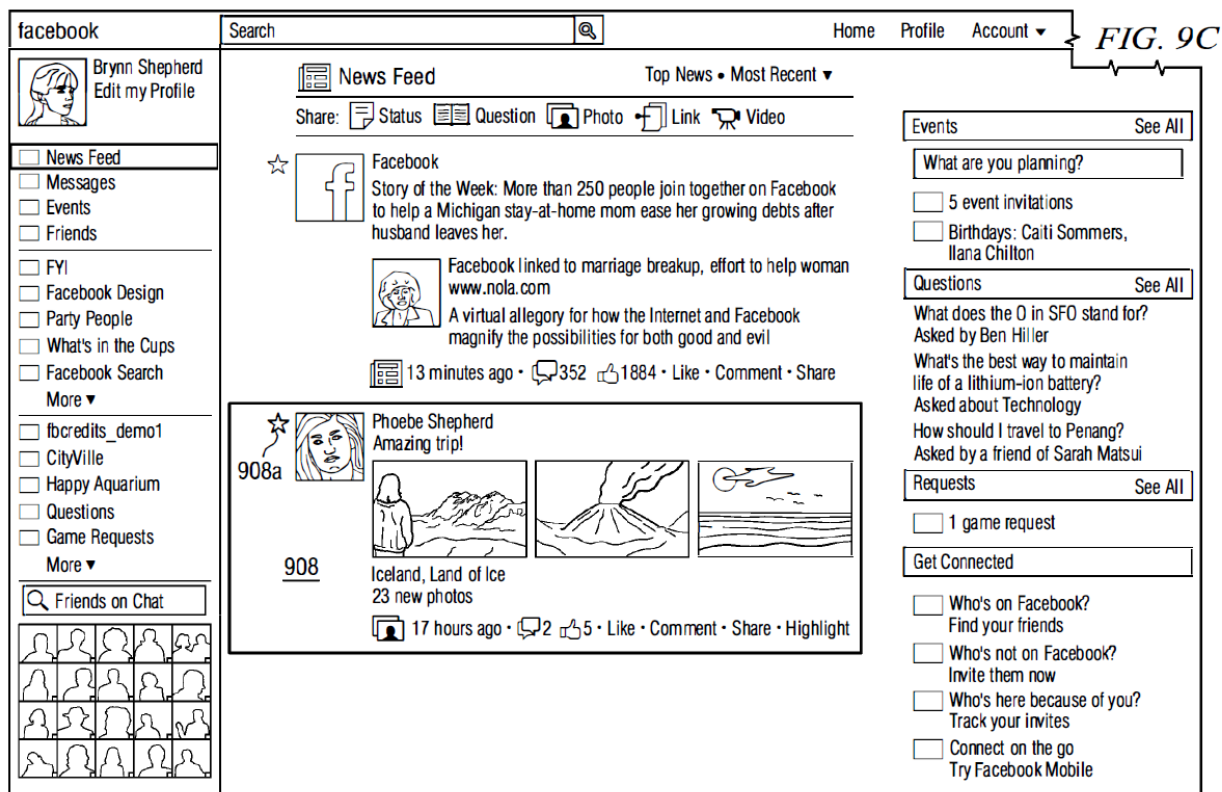
“[1c] obtain a networked content item authored by a user;”

80. In my opinion, Fuloria discloses that its social networking system **obtain[s] a networked content item authored by a user**. Fuloria explains that users of its social networking system can generate a “**piece of content or story on the social networking system**, including but not limited to individual photos, photo albums, videos, status messages, shared links, notes, and comments by users on other content.” (Ex. 1004, ¶0008). Fuloria states that “any object which may be liked or otherwise inter acted with by a user on the social networking system is herein referred to as a ‘**social networking object**.’” (*Id.*)(see also Ex. 1004, Abstract, ¶¶0027, 0036, 0037, Fig. 4, 0004). Such social networking objects (**networked content items**) can be **authored by a user**. (Ex. 1004, ¶¶0006, 0036-0037, 0057, 0062-0067, 0029, Figs. 8-9). For example, a user may “post stories or status updates

to a live activity stream, such as a ‘news feed.’” (Ex. 1004, ¶0006).

“[1d] 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,”

81. In my opinion, Fuloria in view of Andler renders obvious this claim element. Fuloria teaches **generat[ing] a user interface that displays networked content items**. (Ex. 1004, ¶¶0037, 0006-0008)(*see also* Ex. 1004, Figs. 8-9)(depicting exemplary user interfaces). “Users interacting with the social network may post stories or status updates [**e.g., networked content items**] to a live activity stream, such as a ‘news feed.’” (Ex. 1004, ¶0006). An exemplary user interface depicting a user’s “news feed” on which **networked content items** are **display[ed]** is depicted below:



(Ex. 1004, Fig. 9C, ¶0058)(see also Ex. 1004, Figs. 8-9).

82. Users can **engage** with content posted to a news feed by, for example, super liking, liking, or commenting on the content. (Ex. 1004, ¶¶0037-0039, 0057-0058, 0062-0067, 0008, 0026-0027, Figs. 8-9); see also claim element 1[a] (discussing engagements). For example, Fuloria explains that “[u]sers may express an affinity for essentially any piece of content or story on the social networking system, including but not limited to individual photos, photo albums, videos, status messages, shared links, notes, and comments by users on other content.” (Ex. 1004, ¶0008). Fuloria also **display[s] a [] number of engagements with a networked content item obtained by a [] user**. (E.g., Ex. 1004, Fig. 9A, showing 1884 likes

for the top news story, Fig. 8A, showing that two users each liked a photo album one time, Fig. 9C showing one super-like); *see also* claim element 1[l].

83. As discussed above under the section entitled “Rationale (Motivation) for the Combination, in my opinion, it would have been obvious to display a ranking of top users, with each user having a number reflecting engagements obtained by the user. It would have been obvious, as discussed above, to use any of engagement scores, number of engagements, the credits used to obtain them, or the real-world value of such credits. In this manner, the combination 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**. Regarding the phrase “number of engagements,” I note that the ’687 patent’s statement that “[a]s used herein throughout, although the term ‘number’ of resources or ‘number’ of engagements is used, resources and engagements may be quantified in ways other than a ‘number.’” (Ex. 1001, 13:35-38). Thus, according to the Patent Owner, a “number” need only be some quantification of engagements.

84. In my opinion, any of engagement scores, number of engagements, the credits used to obtain them, or the real-world value of such credits are **a first number of engagements with the networked content item obtained by a first user**. Specifically regarding the “engagement score,” Andler teaches that:

“Each engagement score is based on interactions of each of the first

users with the selected item of content. The engagement score may further [be] based on whether additional users have accessed the item of content based on the interaction of one of the first users....”

(Ex. 1005, ¶0206). The engagement score thus reflects a quantification of engagements “obtained by” a user. I note that 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, per Fuloria. (Ex. 1004, ¶0038). And because engagements by other users factor into a first user’s engagement score, they further serve as “an indication that [the first] user should be distinguished with respect to the content over another user.” (Ex. 1001, 5:53-55).

85. Similarly, regarding the “**number of engagements**,” when a first user super-likes a content item on a cost-per-click or cost-per-action model (Ex. 1004, ¶0038), the first user **obtains** a number of engagements of other users, which can be displayed directly.

86. Regarding the number of credits or the real-world value of those credits, Fuloria teaches that a first user can opt to spend more or less on a super-like, depending on the result that the first user hopes to achieve. (Ex. 1004, ¶¶0038-0039, 0057). For example, a more expensive super-like can result in more time with a story pinned to the top of a news feed, presentation to more users, or the obtaining of more user engagements. (Ex. 1004, ¶¶0038-0039, 0057). Furthermore, the effect

of super-likes is temporary (Ex. 1004, ¶¶0057, 0060-0061), and there is no restriction on second and further super-likes. Thus, under the Patent Owner’s understanding of the claim language, the number of credits or the real-world value of those credits spent on super-likes would reflect a quantification of engagements obtained by a first user, where the engagements are the super-likes themselves. (See, e.g., Ex. 1015, p. 11)

87. Regarding the **second user**, Fuloria teaches that “super-likes” are available to users in general (and thus to first, second, third, etc. users). (Ex. 1004, ¶¶0037-0039). Furthermore, as discussed above under the section entitled Rationale (Motivation) for the combination, it would have been obvious based on Andler to provide a ranking of top users (so at least first and second users). The reasoning relating to the “first user” above thus applies equally to a second user.

“[1e] and a display option configured to receive a request to obtain a number of engagements with respect to the networked content item,”

88. In my opinion, Fuloria discloses and renders obvious **a display option configured to receive a request to obtain a number of engagements with respect to the networked content item.**

89. Fuloria explains that its social networking system can provide a user with the option to feature or promote a social networking object, including by means of what it refers to as “super-like.” See claim elements 1[a] and [1d]. A user can

request to feature a social networking object by clicking a button, which Fuloria describes can be a “‘super-like’ or promotion button,” “‘highlight’ button” or a “‘feature’ button.” (Ex. 1004, ¶¶0063, 0062, 0065, 0066, 0037, 0038)(*see id.*, ¶0065)(“In particular embodiments, ‘highlight’ button 903a is interchangeable with ‘Feature’ button 803a or a ‘super-like’ button.”). As Fuloria explains,

“After clicking ‘Feature’ button 803a, social networking system 100 displays dialog box 805 to the user. Dialog box 805 prompts the user as to whether he or she would like to feature the post for 10 credits. Dialog box 805 also includes credit balance 806 and confirmation button 809. The user may click confirmation button 809 to promote the social networking object, in this case photo story 803.”

(Ex. 1004, ¶0063). The button and associated dialog boxes and confirmation buttons are **a display option**. Using this functionality, the system can **receive a request to** super-like a content item.

90. This request to “feature” or “super-like” a content item is **a request to obtain a number of engagements with respect to the networked content item**. This is first because when a user seeks to promote a content item in this manner, the user is not only engaging with the content item him or herself, the user is also seeking to increase engagement *by other users* with respect to that content item. (Ex. 1004, ¶¶0037-0039, 0057-0058, 0062-0067, 0008, 0027, Figs. 8-9); *see also* claim element 1[a] (discussing engagements). The super-liked item is prominently displayed to a

user's connections, who may then engage with the item by, for example, liking it or commenting on it. (*Id.*). As Fuloria explains, for example, "the present invention allows users to promote their own or their friends['] stories to a sponsored story space, or pin the story to the top of the news feed." (Ex. 1004, ¶0067). Second, Fuloria teaches that a user can adjust the scope of the "super-like" to last longer or reach more users, thus changing the price (Ex. 1004, ¶¶0038-0039, 0057), and affecting the "number" (quantification) of offered engagements, according to the Patent Owner's understanding of the claims. (Ex. 1001, 13:35-38).

91. As explained in detail under claim element [1f], a user can super-like content in exchange for payment of resources such as credits. Fuloria explains:

"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, ¶0038)(*see also* Ex. 1004, Abstract, ¶0057)("The promoted social networking objects may be pinned for a predetermined amount of time, clicks, or impressions at the top of the news feeds for the first degree connections of the promoting user."). In other words, Fuloria explains 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 and contemplates any suitable payment system.

92. In my opinion, Fuloria thus discloses and renders obvious a system wherein a user **request(s) to obtain a number of engagements with respect to** the piece of featured content. (Ex. 1004, ¶¶0038-0039).⁵ For example, a user may request to feature the content item until it receives 10 “likes” and then be charged per like. Alternatively, a user may request to feature the content item for a certain length of time, and then be charged based on how many users ultimately like or comment on the content.

“[1f] 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;”

93. See claim element [1e]. In my opinion, Fuloria discloses and renders obvious this claim element. As explained under claim element [1e], a user can feature or “super-like” a content item in order to promote that content item to other

⁵ A request to obtain x number of engagements is also a request to obtain “at least” x number of engagements.

users in order to facilitate their engaging with that content item. This functionality is provided in return for **resources** such as “credits.” (Ex. 1004, ¶¶0037-0038, 0057-0067). As Fuloria explains:

“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, credits are equivalent to real-world currency. In particular embodiments, credits are valueless electronic currency that may only be used on the social networking system.”

(Ex. 1004, ¶0038).

94. For the reasons set forth in the Rationale (Motivation) Supporting Obviousness section above, as well as for the reasons explained under claim element [1e], in my opinion, it would be obvious for a user to feature or “super-like” a content item **in exchange for a first amount of resource[s] from the user** where each engagement (e.g., like, comment) the user seeks to obtain **requires an amount of resources** (e.g., 10 credits per like). (Ex. 1004, ¶0038)(see also Ex. 1004, Abstract, ¶0057). It is further obvious for multiple different users (**a first user and a second user**) to feature or “super-like” the *same* content item (the content item will be promoted to different sets of users, Ex. 1004, ¶0057), such that **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.

“[1g] provide, via a network, the user interface;”

95. In my opinion, Fuloria discloses and renders obvious this claim element. Fuloria’s social networking system uses a **network** such as the Internet to provide its social network functionality. (Ex. 1004, ¶¶0046, 0075, Fig. 6). Fuloria’s social networking system uses a network to provide a **user interface**. (Ex. 1004, ¶¶0037, 0006-0008)(see also Ex. 1004, Figs. 8-9)(depicting exemplary user interfaces).

“[1h] 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;”

96. See claim element [1e]. As set forth under claim element [1e], Fuloria’s system can **receive** a request to obtain a **number of engagements relating to a networked content item**. The super-like functionality is available to users of the system generally, including a third user. (Ex. 1004, ¶¶0037-0038, 0057). When a third user elects to feature or super-like the content and confirms the terms of payment, this is **an indication to obtain a third number of engagements**. The request is **receive[d] via the user interface**. (Ex. 1004, ¶¶0037, 0006-0008)(see also Ex. 1004, Figs. 8-9)(depicting exemplary user interfaces, including options to

feature or highlight content in exchange for credits); *see also* claim element 1[a] (discussing engagements).

97. Fuloria teaches that a **user (third user)** can feature or super-like a **networked content item authored** by a **different user**, and provides an example of how to do so. (Ex. 1004, ¶¶0036, 0064-0067, 0057, Fig. 9)(*see* Ex. 1004, ¶0036)(“[T]he user may sponsor content objects created by that user or **other users.**”)(Emphasis added). In my opinion, Fuloria thus discloses and renders obvious a request 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.**

“[1i] 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;”

98. *See* claim elements [1e] and [1f]. In my opinion, Fuloria discloses and renders obvious this claim element. As explained under claim elements [1e] and [1f], a user can feature or “super-like” a content item in order to promote that content item to other users and functionality is provided in return for **resources** such as “credits.” (Ex. 1004, ¶¶0037-0038, 0057-0067). As set forth under claim elements [1e] and [1f], it would be obvious for a user to feature or “super-like” a content item in exchange for an amount of resources from the user where each engagement (e.g., like, comment) the user seeks to obtain requires an amount of resources (e.g., 10

credits per like). (Ex. 1004, ¶0038)(*see also* Ex. 1004, Abstract). Fuloria teaches to price super-likes in terms of cost per unit (e.g. CPM or CPA), which would require and render obvious multiplication by the “units” to calculate a total cost. (Ex. 1004, ¶0038).

99. When a user seeks to obtain a particular number of engagements, it would be obvious for the system to **determine an amount of resources required to obtain a number of engagements by multiplying the amount of resources required for a single engagement with the number** of engagements the user seeks to obtain, so that the system can determine the amount of resources (credits) to charge the user. 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.

“[1j] debit the third amount of resources from a user account balance associated with the third user;”

100. Fuloria teaches 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.” (Ex. 1004, ¶¶0038, 0059, 0066, claim 1)(*See also* Ex. 1004, Figs. 8b and 9b)(showing the number of credits a user has in their user account balance). Fuloria further explains that “[i]n particular embodiments, the credits are deducted after the promoted social networking object is delivered to

various users, based on the delivery.” (Ex. 1004, ¶0038). In my opinion, Fuloria thus discloses and renders obvious that the system **debit[s] the third amount of resources from a user account balance associated with the third user.** It would also be obvious for the system to debit the user account balance the amount of credits determined under claim element [1i] in order to charge the user.

“[1k] store, in a database accessible to the computer system, an association between the third number of engagements and the third user; and”

101. In my opinion, Fuloria and Andler render obvious this claim element. Fuloria discloses tracking a “user’s prior credit or spending history.” (Ex. 1004, ¶0037). Fuloria also discloses “action store 650 [which] stores actions that have been performed by the users of the social networking system 100, along with an indication of the time associated with those actions and references to any objects related to the actions.” (Ex. 1004, ¶0047). In my opinion, it would be obvious to store, in connection with a user’s account history or history of a user’s actions, 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. It would also be obvious to track and store such information in order to allow the system to customize future interactions with the user, targeting them based on the user’s prior activity. (See, e.g., Ex. 1004, ¶¶0005, 0037). Here, that record would obviously contain the number of credits paid, the number of engagements obtained

(the **third number of engagements**), and the identity of the user, and would contain an **association** between the user's history and the user in order to ensure that the correct data is associated with the correct user.

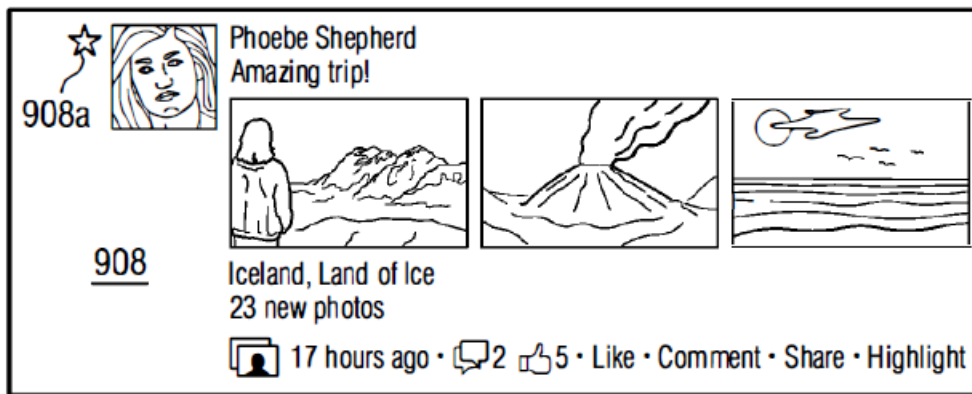
102. In my opinion, it would be further obvious in view of Fuloria and Andler to track and store this information in order to use it to calculate user engagement scores and associated rankings, as explained under claim element [1d]. For example, Fougner, which is incorporated into Fuloria, teaches generating reports which track, for a sponsored content item, “basic statistics, such as the number of users reached, the number of impressions, the number of clicks, and the number of inline actions, such as playing a video, liking the post, etc.” (Ex. 1007, ¶0051).

103. Fuloria teaches the use of various storage capabilities, including the use of “**database[s]**,” data stores, and data logs. (Ex. 1004, ¶¶0005, 0034, 0035, 0031, 0033, 0036, 0037, 0047, 0070, Figs. 2, 3, 10). Schoen (which, as discussed above) is incorporated by reference into Fuloria, similarly describes the use of databases for organized data storage. (Ex. 1006, ¶¶0027, 0030, 0048, 0063-0064). For example, Shoen refers to a “**database**” used to store “user privacy preferences.” (Ex. 1006, ¶0048). Andler discloses the use of a “**database**” which can be used to store “user profiles.” (Ex. 1005, ¶¶0174-0175, 0052, 0032, 0043, Fig. 3). In my opinion, it would be obvious to use one of these **database[s]** to store a user's account history, including engagements obtained with respect to a particular content item, an

associated payment record, in order to facilitate the organized storage and tracking of user data. *see also* Rationale (Motivation) Supporting Obviousness Section above.

“[11] provide, in the user interface, an indication of the third number of engagements.”

104. In my opinion, Fuloria and Andler render obvious this claim element. Fuloria teaches that once a user “super-likes” a content item, other users who view the content item can engage with the story by, e.g., liking or commenting on the content item. (Ex. 1004, ¶¶0037-0039, 0057-0059, 0061-0067, 0008, 0027, Figs. 8-9). For example, Figure 9C (a portion of which is excerpted below) illustrates a news feed (**user interface**) where “photo story 903” is super-liked (as can be seen by the ‘star’ 908a associated with the post) and **indicates** where other users have liked and commented (**engaged** with) on the story:



(Ex. 1004, Fig. 9C, ¶0067). Fuloria shows that the system displays **indications** of how many of different types of engagements in general there have been with a

content item (e.g., 2 comments and 5 likes). (*see also e.g.*, Ex. 1004, Fig. 9A, showing 1884 likes for the top news story, Fig. 8A, showing that two users each liked a photo album one time, Fig. 9C showing one super-like). Schoen (which, as discussed above) is incorporated by reference into Fuloria, states that sponsored stories can be displayed with what it refers to as a “bling indicator” “which provides a **visual indication** as to how many members of the social networking site have commented or liked the sponsored story.” (Ex. 1006, ¶10049, Fig. 7C)(Emphasis added).

105. As set forth under claim elements [1e] and [1f], the system is already tracking 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. In my opinion, it would further be obvious to **display** the results of this tracking. Doing so involves **provid[ing], in the user interface, an indication of the third number of engagements**—i.e., how many engagements were obtained as a result of the user super-liking the content item—in order to show the source of the engagements. Doing so would better enable users who have authored content items to see which other users are driving engagement with their content. For example, Fougner, which is incorporated into Fuloria, teaches generating reports which track, for a sponsored content item, “basic statistics, such as the number of users reached, the number of impressions, the number of clicks, and the number of inline actions, such as playing

a video, liking the post, etc.” (Ex. 1007, ¶0051).

106. In my opinion, this claim element is also obvious in view of Andler. For similar reasons as set forth under claim element [1d], it would be obvious to calculate an engagement score and for such a score to be or to reflect (for a **third user**) **an indication of the third number of engagements**. For similar reasons as set forth under claim element [1d], it would further be obvious to **provide, in the user interface**, this engagement score. Doing so would allow the engagement score to be visualized by the third user, or by other users.

CLAIM 2

“2. The system of claim 1, wherein to obtain the networked content item, the computer system is further programmed to: obtain a social media content item authored by the first user.”

107. See claim element [1c]. Fuloria discloses that its social networking system can **obtain social media content items authored by** various different **users**. (Ex. 1004, ¶¶0006, 0008, 0027, 0036-0037, Fig. 4, 0057, 0062-0067, Figs. 8-9, Abstract).

CLAIM 3

“3. The system of claim 2, wherein to obtain the social media content item, the computer system is further programmed to:

aggregate a plurality of social media content items, authored by the user, from one or more third party social media platforms, wherein the plurality of social media content items includes the social media content item.”

108. See claim 2. In my opinion, this claim is further obvious over Fuloria and Andler. Fuloria teaches that its system interacts with third-party websites (Ex. 1004, ¶¶0028-0029, Fig. 1). Schoen (which, as discussed above) is incorporated by reference into Fuloria, similarly teaches that its system interacts with third-party websites. (Ex. 1005, ¶¶0024, 0025, Fig. 1). Schoen further teaches that a “sponsored story [a **content item**] may be displayed on a third-party website integrated with the social network” and that a user can “shar[e] a link [a **content item**] from a third-party website.” (Ex. 1006, ¶¶0038, 0043, 0045, Fig. 6B, Fig. 7, Figs. 7A-E).

109. Andler teaches that a “social network site,” which can be, for example, Facebook, can be in communication with another “social network site,” which can be, for example, Twitter. (Ex. 1006, ¶¶0049, 0051-0052, 0054). Andler further describes permitting a user to share (“broadcast”) content between **social media platforms**. (Ex. 1005, ¶0063). Andler states that, “[f]or example, upon connection to a resource, the dialog may prompt the user whether he/she’d like this connection to be broadcasted to FacebookTM/YoutubeTM, etc. (depending on that user’s connect/privacy settings).” (*Id.*). In my opinion, it would be obvious in view of these teachings for the system to **obtain a social media content item** by allowing a user to share or link to **social media content items authored by the user (aggregate a plurality of social media content items, authored by the user) from one or more third party social media platforms**.

CLAIM 5

“5. The system of claim 1, the computer system is further programmed to:

receive a request to obtain additional resources used to exchange for engagements;

determine a fiat currency amount required to obtain the third amount of resources;

cause a financial account to be debited based on the fiat currency amount; and

increment the user account balance based on the requested additional resources.”

110. In my opinion, Fuloria renders obvious this claim. Fuloria teaches that “[i]n particular embodiments, credits are equivalent to real-world currency.” (Ex. 1004, ¶0038). This renders obvious the provision of a standard mechanism to permit a user to spend real world currency (**fiat currency**) to purchase credits for use within the system. In the relevant timeframe, it was common practice to purchase things online (including goods, services, and tokens of value like “credits”), and in my opinion, the steps of the claim reflect no more than a standard financial transaction. This transaction is motivated by Fuloria’s suggestion that credits are equivalent to real-world currency (e.g. a fiat currency) (Ex. 1004, ¶0038), and because the steps of transactions are already taught by Fuloria, in the sense that a user can exchange credits for super-likes, and have their account debited. (Ex. 1004, ¶¶0038, 0059,

0066, claim 1). One would only need to use that same transaction structure such that the purchased item is one or more “credits” and the account is a “financial account” (like a credit card account or bank account), in a manner that was already ubiquitous on the World Wide Web. (*e.g.* Ex. 1009, 18:19-41). It would thus be obvious to program the system to **receive a request to obtain credits; determine a fiat currency amount required to obtain an amount of credits; cause a user’s financial account to be debited based on the fiat currency amount; and increment the user account credit balance based on the requested additional credits.**

CLAIM 6

“6. The system of claim 1, wherein the computer system is further programmed to:

rank the first user with respect to the second user based on the first number of engagements and the second number of engagements; and

display, in the user interface, an indication of the rank.”

111. See claim element [1d]. In my opinion, Fuloria and Andler render obvious this claim element. As explained under claim element [1d], Andler describes **displaying** a list of users, **ranked** by their engagement scores with respect to an item of content:

“At step 708, the identified subset is **displayed**. Such a subset may include an identification of a **predefined number of first users**

sorted by highest-to-lowest engagements score (e.g., a list of top fans based on the engagement score). In addition to displaying the identified subset, the **logged-in user's ranking amongst all of the first users (based on engagement score) may be displayed.**"

(Ex. 1005, ¶0208)(*see also* Ex. 1005, ¶0053). As set forth under claim element [1d] and the Rationale (Motivation) Supporting Obviousness section above, and it would be obvious to, **generate a user interface that displays** engagement scores, in order for users to see their relative **ranking—in other words, to display, in the user interface, an indication of the rank** in terms of obtaining engagements in promoting a particular content item. (Ex. 1005, ¶0208)(*see also* Ex. 1005, ¶0053).

CLAIM 13

"13[a]. A method for aggregating content and facilitating uncapped engagement of the content,"

112. See claim element [1a]. Fuloria in view of Andler also renders obvious a corresponding **method**. (Ex. 1004, Abstract, ¶¶0037-0039, 0058, 0068, claims 1-8)(Ex. 1005, Abstract, ¶0164, claims 1-7).

"[13b] the method being implemented on a computer system comprising one or more physical processors programmed by computer program instructions to perform the method, the method comprising:"

113. See claim elements 13[a] and [1b]. Fuloria and Andler similarly render obvious the claimed **method being implemented on the computer system**.

“[13c] obtaining, by the computer system, a networked content item authored by a user;”

114. See claim elements [1c] and [13b].

“[13d] generating, by the computer system, 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”

115. See claim elements [1d] and [13b].

“[13e] a display option configured to receive a request to obtain a number of engagements with respect to the networked content item,”

116. See claim element [1e].

“[13f] wherein a single engagement requires an amount of resources and the first number of engagements was obtained in exchange for a first amount of resources from the first user, and the second number of engagement was obtained in exchange for a second amount of resources from the second user;”

117. See claim element [1f].

“[13g] providing, by the computer system, via a network, the user interface;

118. See claim elements [1g] and [13b].

“[13h] receiving, by the computer system, 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;”

119. See claim elements [1h] and [13b].

“[13i] determining, by the computer system, 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;

120. See claim elements [1i] and [13b].

“[13j] debiting, by the computer system, the third amount of resources from a user account balance associated with the third user;”

121. See claim elements [1j] and [13b].

“[13k] storing, by the computer system, in a database accessible to the computer system, an association between the third number of engagements and the third user; and”

122. See claim elements [1k] and [13b].

“[13l] providing, by the computer system, in the user interface, an indication of the third number of engagements.”

123. See claim elements [1l] and [13b].

CLAIM 14

“14. The method of claim 13, wherein obtaining the networked content item comprises: obtaining, by the computer system, a social media content item authored by the first user.”

124. See claim element [13b] and claim 2.

CLAIM 15

“15. The method of claim 14, wherein obtaining the social media content item comprises:

aggregating, by the computer system, a plurality of social media content items, authored by the user, from one or more third party social media platforms, wherein the plurality of social media content items includes the social media content item.”

125. See claim element [13b] and claim 3.

CLAIM 17

“17. The method of claim 13, the method further comprising:

receiving, by the computer system, a request to obtain additional resources used to exchange for engagements

determining, by the computer system, a fiat currency amount required to obtain the determine amount of resources;

causing, by the computer system, a financial account to be debited based on the fiat currency amount; and

incrementing, by the computer system, the user account balance based on the requested additional resources.”

126. See claim element [13b] and claim 5.

CLAIM 18

“18. The method of claim 13, the method further comprising: ranking, by the computer system, the first user with respect to the second user based on the first number of engagements and the second number of engagements; and

display, by the computer system, in the user interface, an indication of the rank.”

127. See claim element [13b] and claim 6.

XI. GROUND 2. CLAIMS 11 AND 23 ARE OBVIOUS OVER FULORIA IN VIEW OF ANDLER, FURTHER IN VIEW OF WO ’100

128. In my opinion, claims 11 and 23 are obvious under AIA 35 U.S.C. § 103(a) over Fuloria (Ex. 1004) in view of Andler (Ex. 1005), further in view of WO 2015/089100 A1 (“WO ’100”)(Ex. 1011).

129. Fuloria and Andler are discussed in Ground 1, the entirety of which is incorporated herein.

130. I understand that WO ’100 was not cited during prosecution of any application leading to the ’687 patent.

A. Effective Prior Art Dates

131. WO ’100 is a PCT application publication that published on June 18, 2015, and I understand that it is thus prior art.

B. Overview of the Combination and Rationale (Motivation) Supporting Obviousness

132. Fuloria and Andler are as applied in Ground 1. Independent claims 11 and 23 are similar to claims 1 and 13 in several respects, but require that the system “receive . . . an indication to obtain a first plurality of engagements relating to the networked content item from a first user different from the user that authored the networked content item, wherein 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.**” In other words, these claims require that the indication to obtain engagements is joint—it involves at least two users.

133. WO '100 describes a “system for facilitating user engagement with a high profile person or brand.” (Ex. 1011, Abstract). This system can be implemented in the context of a social network. (Ex. 1011, Title, Abstract, ¶¶0002-0003, 0013, 0061, 0069, 0088, 0091). 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 (an HPP). (Ex. 1011, ¶¶0057-0060)(“[A] plurality of users can join forces to elevate a content message to an HPP.”).

134. In my opinion, it would be obvious to incorporate this functionality into the system of the combination thus allowing multiple users (a **first user** and a **third user**) to jointly seek to obtain engagements with respect to a piece of content (**indication to obtain the first plurality of engagements together with at least a third user**). It would be obvious to do so in order to allow users to combine resources and their respective influence in order to increase engagement with respect to a piece of content. Doing so, would, as WO '100 teaches, “increase their probability of being noticed as their status and trending can be exponentially stronger

depending on how many users team up.” (Ex. 1011, ¶0060).

135. Further reasoning concerning the motivation to combine is provided below in the claim mapping section, where appropriate.

C. Reasonable Expectation of Success

136. *See* Ground 1. In my opinion, for similar reasons as set forth under Ground 1, a PHOSITA in the relevant timeframe would have had a reasonable expectation of success combining and using aspects of Fuloria’s and Andler’s social networking systems and methods as set forth in Ground 1 and as further set forth under the present Ground with those of WO ’100.

D. Analogous Art

137. In my opinion, Fuloria, Andler, and WO ’100 are analogous art because they are in the same field as the ’687 patent (social networks), and their methods would have been reasonably pertinent to the problems facing the named inventors, because all three references concern social networking and the management and promotion of content on social networks. (Ex. 1004, Title, Abstract, ¶¶0001-0024)(Ex. 1005, Title, Abstract)(Ex. 1001, Title, Abstract)(Ex. 1011, Title, Abstract, ¶¶0002-0003, 0013, 0061, 0069, 0088, 0091).

Claim Mapping

138. This section maps the challenged claims to the relevant disclosures of Fuloria, Andler, and WO ’100, where the claim text appears in bold-italics, and the relevant mapping follows the claim text.

INDEPENDENT CLAIM 11

“11[a]. A system for aggregating content and facilitating uncapped engagement of the content, the system comprising:”

139. See Ground 1, claim element 1[a] analysis.

“[11b] a computer system comprising one or more physical processors programmed by computer program instructions to:”

140. See Ground 1, claim element [1b] analysis.

“[11c] obtain a networked content item authored by a user”

141. See Ground 1, claim element [1c] analysis.

“[11d] generate a user interface comprising the networked content item and a display option configured to receive a request to obtain engagements with respect to the networked content item;”

142. See Ground 1, claim element [1d] and [1e] analysis. The **user interface comprises the networked content item.** (Ex. 1004, ¶¶0037, 0006-0008)(see also Ex. 1004, Figs. 8-9)(depicting exemplary user interfaces). The user interface also comprises **a display option configured to receive a request to obtain engagements with respect to the networked content item.** (Ex. 1004, ¶¶0037-0039, 0057-0058, 0062-0067, 0008, 0027, Figs. 8-9).

“[11e] provide, via a network, the user interface;”

143. See Ground 1, claim element [1g] analysis.

“[11f] receive, via the user interface, an indication to obtain a first plurality of engagements relating to the networked content item from a first user different from the user that authored the networked content item,”

144. See Ground 1, claim element [1h] analysis. As explained under claim element [1h], Fuloria teaches and renders obvious requests from users to obtain **a first plurality of engagements relating to the networked content item** and these users can be **different from the user that authored the networked content item**.

“[11g] wherein 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”

145. See Ground 1, claim element [1d], [1e], and [1h] analysis. In my opinion, the combination of Fuloria, Andler, and WO '100 renders obvious this claim element. Under claim element [11f], the **first user** submits the claimed **indication**. Claim element [11g] requires that this indication be an **indication to obtain the first plurality of engagements together with at least a third user**.

146. As set forth in the Overview and Rationale (Motivation) Supporting Obviousness sections above, 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 (an HPP). (Ex. 1011, ¶¶0057-0060)(“[A] plurality of users can join forces to elevate a content message to an HPP.”). In my

opinion, it would be obvious to incorporate this functionality into the system of the combination thus allowing multiple users (a **first user** and a **third user**) to jointly seek to obtain engagements with respect to a piece of content (**indication to obtain the first plurality of engagements together with at least a third user**). It would be obvious to do so in order to allow users to combine resources and their respective influence in order to increase engagement with respect to a piece of content. Doing so, would, as WO '100 teaches, “increase their probability of being noticed as their status and trending can be exponentially stronger depending on how many users team up.” (Ex. 1011, ¶0060).

“[11h] determine an amount of resources required to obtain the first plurality of engagements;”

147. See Ground 1, claim element [1i] analysis. For the same reasons, Fuloria discloses and renders obvious **determin[ing] an amount of resources required to obtain the first plurality of engagements.**

“[11i] debit the amount of resources from a user account balance associated with the first user and/or from another user account balance associated with the third user, wherein the user account balance stores an amount of resources available to the first user;”

148. See Ground 1, claim element [1j] and [11g] analysis. As set forth under claim element [1j], Fuloria discloses and renders obvious **debit[ing] an amount of resources from a user account balance associated with** a user requesting to

promote or “super-like” a content item in exchange for credits and that **the user account balance stores an amount of resources available to** that user. Where two users (the **first user** and the **third user**) have jointly requested to super-like or promote a content item in exchange for credits (See claim element [11g]), it would further be obvious to **debit** the credits from the user account balances associated with either one or both users, which are the two most readily apparent options for payment.

“[11j] store, in a database accessible to the computer system, an association between the first plurality of engagements and the first user;”

149. See Ground 1, claim element [1k] analysis. For the same reasons, Fuloria and Andler disclose and render obvious **stor[ing], in a database accessible to the computer system, an association between the first plurality of engagements and the first user.**

“[11k] obtain, from the database, information indicating a second plurality of engagements with respect to the networked content item from at least a second user different from both the user and the first user; and”

150. See Ground 1, claim element [1k] analysis. As set forth under claim element [1k], it would be obvious to use a database to store an association between a number of engagements and a user. This also renders obvious **storing information**

indicating a second plurality of engagements with respect to a networked content item. It would further be obvious to access the database and **obtain** this information. For example, it would be obvious to do so for the reasons set forth under claim element [1k] and further in order to calculate and display user rankings, as discussed under claim element Ground 1, claim element [1d] and claim 6.

“[11l] provide, via the user interface, an indication of the first plurality of engagements from the first user and the second plurality of engagements from the second user.”

151. See Ground 1, claim element [1d] and [1l] analysis. For the same reasons, Fuloria alone or in view of Andler discloses and renders obvious **provid[ing], via the user interface, an indication of the first plurality of engagements from the first user and the second plurality of engagements from the second user.”**

INDEPENDENT CLAIM 23

“23[a]. A method for aggregating content and facilitating uncapped engagement of the content,”

152. See Ground 1, claim element 13[a]; see claim element 11[a].

“[23b] the method being implemented on a computer system comprising one or more physical processors programmed by computer program instructions to perform the method, the method comprising:”

153. See Ground 1, claim element [13b]; see claim element [11b].

“[23c] obtaining, by the computer system, a networked content item authored by a user;”

154. See Ground 1, claim element [13c]; see claim element [11c].

“[23d] generating, by the computer system, a user interface comprising the networked content item and a display option configured to receive a request to obtain engagements with respect to the networked content item;”

155. See Ground 1, claim element [13d] and [13e] analysis; see claim element [11d].

“[23e] providing, by the computer system, via a network, the user interface;”

156. See Ground 1, claim element [13g] analysis; see claim element [11e].

“[23f] receiving, by the computer system, via the user interface an indication to obtain a first plurality of engagements relating to the networked content item from a first user different from the user that authored the networked content item,”

157. See Ground 1, claim element [13h] analysis; see claim element [11f].

“[23g] wherein 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;”

158. See Ground 1, claim element [1d], [1e], [1h], and [13h] analysis; see claim element [11g].

“[23h] determining, by the computer system, an amount of resources required to obtain the first plurality of engagements;”

159. See Ground 1, claim element [13i] analysis; see claim element [11h].

“[23i] debiting, by the computer system, the amount of resources from a user account balance associated with the first user and/or from another user account balance associated with the third user, wherein the user account balance stores an amount of resources available to the first user;”

160. See Ground 1, claim element [13j] analysis; see claim elements [23g]; and [11i].

“[23j] storing, by the computer system, in a database accessible to the computer system, an association between the first plurality of engagements and the first user;”

161. See Ground 1, claim element [13k] analysis; see claim element [11j].

“[23k] obtaining, by the computer system, from the database, information indicating a second plurality of engagements with respect to the networked content item from at least a second user different from both the user and the first user; and”

162. See Ground 1, claim element [13k] analysis; see claim element [11k].

“[23l] providing, by the computer system, via the user interface, an indication of the first plurality of engagements from the first user and the second plurality of engagements from the second user.”

163. See Ground 1, claim elements [1d], [1l], [13b] analysis; see claim element [11l].

XII. GROUND 3: CLAIMS 12 AND 24 ARE OBVIOUS OVER FULORIA IN VIEW OF ANDLER, FURTHER IN VIEW OF BARTHOLOMEW

164. In my opinion, claims 12 and 24 are obvious over Fuloria (Ex. 1004) in view of Andler (Ex. 1005), further in view of U.S. Pat. App. Pub. 2016/0314501 A1 (“Bartholomew”)(Ex. 1012).

165. Fuloria and Andler are discussed in Grounds 1 and 2, the entirety of which are incorporated herein.

166. I understand that Bartholomew was not cited during prosecution of any application leading to the ’687 patent.

A. Effective Prior Art Dates

167. Bartholomew is a U.S. patent application publication that published on October 17, 2016. (Ex. 1012). It claims priority to an application filed March 23, 2016, as well as to a provisional application filed on March 24, 2015. (Ex. 1013).⁶ I understand that it is thus prior art.

B. Overview of the Combination and Rationale (Motivation) Supporting Obviousness

168. Fuloria and Andler are as applied in Grounds 1 and 2. Claims 12 and 24 are directed to functionality which allows one user to “donate” resources to another user. In my opinion, these claim elements are obvious over Fuloria further

⁶ (See, e.g., Ex. 1013, 41:21-28).

in view of Bartholomew.

169. As explained under Ground 1, claim element [1j], Fuloria teaches and renders obvious that users have **account balances** that can store **resources** (credits). Bartholomew teaches a system that can be used with or as a part of a social network (Ex. 1012, ¶¶0300-0301) in which a user can transfer credits (**resources**) to other users. (Ex. 1012, ¶0312)(*see also* Ex. 1012, ¶0309). Bartholomew specifically teaches that “credits may be gifted for free” from one user to another (**donat[ion]** of an **amount of resources**). (Ex. 1012, ¶0312). In my opinion, it would be obvious to incorporate this functionality into the combined system of Fuloria and Andler for numerous reasons, including in order to permit users to help their friends, to allow a user closing down an account to make use of accumulated credits by transferring them to a friend, to allow a user to transfer credits between his or her multiple accounts, or to allow one use to encourage another user to make donations by gifting them with resources to be able to do so. (Ex. 1012, ¶0312). It would accordingly be obvious to allow a user (a **third user**) to **request to donate an amount of resources from a second user account balance associated with the third user to the user account balance (associated with the first user)**.

170. Further reasoning concerning the motivation to combine is provided below in the claim mapping section, where appropriate.

C. Reasonable Expectation of Success

171. See Ground 1. In my opinion, for similar reasons as set forth under Ground 1, a PHOSITA in the relevant timeframe would have had a reasonable expectation of success combining and using aspects of Fuloria's and Andler's social networking systems and methods as set forth in Ground 1 and as further set forth under the present Ground with those of Bartholomew.

D. Analogous Art

172. In my opinion, Fuloria, Andler, and Bartholomew are analogous art because they are in the same field as the '687 patent (social networks), and their methods would have been reasonably pertinent to the problems facing the named inventors, because all three references concern social networking and the management and promotion of content on social networks. (Ex. 1004, Title, Abstract, ¶¶0001-0024)(Ex. 1005, Title, Abstract)(Ex. 1001, Title, Abstract)(Ex. 1012, Title, Abstract, ¶¶0002, 0004, 007, 0300-0301).

Claim Mapping

This section maps the challenged claims to the relevant disclosures of Fuloria, Andler, and Bartholomew, where the claim text appears in bold-italics, and the relevant mapping follows the claim text.

INDEPENDENT CLAIM 12

“12[a]. A system for aggregating content and facilitating uncapped engagement of the content, the system comprising:”

173. See Ground 1, claim element 1[a] analysis.

“[12b] a computer system comprising one or more physical processors programmed by computer program instructions to:”

174. See Ground 1, claim element [1b] analysis.

“[12c] obtain a networked content item authored by a user;”

175. See Ground 1, claim element [1c] analysis.

“[12d] generate a user interface comprising the networked content item and a display option configured to receive a request to obtain engagements with respect to the networked content item;”

176. See Ground 2, claim element [11d] analysis.

“[12e] provide, via a network, the user interface;”

177. See Ground 1, claim element [1g] analysis.

“[12f] receive, via the user interface, an indication to obtain a first plurality of engagements relating to the networked content item from a first user different from the user that authored the networked content item;”

178. See Ground 2, claim element [11f] analysis.

“[12g] determine an amount of resources required to obtain the first plurality of engagements;”

179. See Ground 2, claim element [11h] analysis.

“[12h] debit the amount of resources from a user account balance associated with the first user, wherein the user account balance stores an amount of resources available to the first user;”

180. See Ground 1, claim element [11] analysis and Ground 2, claim element [11i] analysis.

“[12i] store, in a database accessible to the computer system, an association between the first plurality of engagements and the first user;”

181. See Ground 2, claim element [11j] analysis.

“[12j] obtain, from the database, information indicating a second plurality of engagements with respect to the networked content item from at least a second user different from both the user and the first user; and”

182. See Ground 2, claim element [11k] analysis.

“[12k] provide, via the user interface, an indication of the first plurality of engagements from the first user and the second plurality of engagements from the second user;”

183. See Ground 2, claim element [11l] analysis.

“[12l] obtain 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”

184. See Ground 1, claim element [1j] analysis. In my opinion, this claim element is obvious in over Fuloria further in view of Bartholomew. As explained

under claim element [1j], Fuloria teaches and renders obvious that users have **account balances** that can store **resources** (credits). Bartholomew teaches a system that can be used with or as a part of a social network (Ex. 1012, ¶¶0300-0301) in which a user can transfer credits (resources) to other users. (Ex. 1012, ¶0312)(see also Ex. 1012, ¶0309). Bartholomew specifically teaches that “credits may be gifted for free” from one user to another (**donat[ion]** of an **amount of resources**). (Ex. 1012, ¶0312). It would be obvious to incorporate this functionality into the combined system of Fuloria and Andler for numerous reasons, including in order to permit users to help their friends, to allow a user closing down an account to make use of accumulated credits by transferring them to a friend, to allow a user to transfer credits between his or her multiple accounts, or to allow one user to encourage another user to make donations. Ex. 1012, ¶0312). It would accordingly be obvious to allow a user (a **third user**) to **request to donate an amount of resources from a second user account balance associated with the third user to the user account balance (associated with the first user)**.

“[12m] increment the user account balance based on the request from the third user to donate the amount of resources from the second user account balance.”

185. See claim element [1j] and [12l] analysis. It would be further obvious to increment the user account balance based on the request from the third user to donate the amount of resources from the second user account balance in order to

effect the donation of resources described under claim element [12l].

INDEPENDENT CLAIM 24

“24[a]. A method for aggregating content and facilitating uncapped engagement of the content,”

186. See Ground 1, claim element 13[a] analysis; see claim element 12[a].

“[24b] the method being implemented on a computer system comprising one or more physical processors programmed by computer program instructions to perform the method, the method comprising:”

187. See Ground 1, claim element [13b] analysis; see claim element [12b].

“[24c] obtaining, by the computer system, a networked content item authored by a user;”

188. See Ground 1, claim element [13c] analysis; see claim element [12c].

“[24d] generating, by the computer system, a user interface comprising the networked content item and a display option configured to receive a request to obtain engagements with respect to the networked content item;”

189. See Ground 1, claim element [13d] analysis; see claim element [12d].

“[24e] providing, by the computer system, via a network, the user interface;”

190. See Ground 1, claim element [13g] analysis; see claim element [12e].

“[24f] receiving, by the computer system, via the user interface, an indication to obtain a first plurality of engagements relating to the networked content item from a first user different from the user that authored the networked content item;”

191. See Ground 1, claim element [13h] analysis; see claim element [12f].

“[24g] determining, by the computer system, an amount of resources required to obtain the first plurality of engagements;”

192. See Ground 1, claim element [13i] analysis; see claim element [12g].

“[24h] debiting, by the computer system, the amount of resources from a user account balance associated with the first user, wherein the user account balance stores an amount of resources available to the first user;”

193. See Ground 2, claim element [23i] analysis; Ground 1, claim element [13j] analysis; see claim element [12h].

“[24i] storing, by the computer system, in a database accessible to the computer system, an association between the first plurality of engagements and the first user;”

194. See Ground 2, claim element [23j] analysis; see claim element [12i].

“[24j] obtaining, by the computer system, from the database, information indicating a second plurality of engagements with respect to the networked content item from at least a second user different from both the user and the first user;”

195. See Ground 2, claim element [23k] analysis; see claim element [12j].

[24k] providing, by the computer system, via the user interface an indication of the first plurality of engagements from the first user and the second plurality of engagements from the second user; and

196. See Ground 2, claim element [23l] analysis; see claim element [12k].

“[24l] obtaining, by the computer system, 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”

197. See Ground 1, claim element [13b] and [1l] analysis; see claim element [12l].

“[24m] incrementing, by the computer system, the user account balance based on the request from the third user to donate the amount of resources from the second user account balance.”

198. See Ground 1, claim element [13b] analysis; see claim element [12m].

XIII. GROUND 4: CLAIMS 4 AND 16 ARE OBVIOUS OVER FULORIA AND ANDLER, FURTHER IN VIEW OF KIRK

199. In my opinion, claims 4 and 16 are obvious over Fuloria (Ex. 1004) in view of Andler (Ex. 1005), further in view of U.S. Pat. App. Pub. 2015/0058103 A1 (“Kirk”)(Ex. 1008).

200. Fuloria and Andler are discussed in Ground 1, the entirety of which is incorporated herein.

201. I understand that Kirk was not cited during prosecution of any application leading to the ’687 patent.

A. Effective Prior Art Dates

202. **Kirk** is a U.S. patent application publication that published on February 26, 2015(Ex. 1008), and I understand that it is thus prior art.

B. Overview of the Combination and Rationale (Motivation) Supporting Obviousness

203. Claims 4 and 16 are dependent claims which depend from claims 1 and 13, respectively. These claims are directed to awarding resources to a user (a first user) based on a different user's (**a third user**) **level of activity with** the application. In my opinion, these claims are obvious over Fuloria in view of Andler, further in view of Kirk.

204. Kirk is directed to users earning points in connection with social media networks. (Ex. 1008, Abstract, ¶¶0007-0009, 0031). Like Fuloria and Andler, Kirk discloses that a social media network can be, for example, Facebook. (Ex. 1008, ¶¶0012, 0053, 0056-0057, 0109). Kirk explains that “the system can be configured so that a user is awarded points based on the activity of others.” (Ex. 1008, ¶¶0037-0038, 0034). Kirk provides a number of different examples of ways in which points can be awarded to one user based on the actions of another user with respect to a social media content item. (Ex. 1008, ¶¶0038-0047).

205. In my opinion, it would be obvious in view of Kirk's teachings to award credits (**resources**) to a first user based on a third user interacting with content posted by a first user in the context of the combined system. Doing so rewards a user

posting engaging content for generating engagement by other users, and permits a user to promote more content, thereby generating further engagements.

C. Reasonable Expectation of Success

206. See Ground 1. In my opinion, a PHOSITA in the relevant timeframe would have had a reasonable expectation of success in using point systems as described in Kirk in the combined system of Fuloria and Andler as described in this Ground and in Ground 1.

D. Analogous Art

207. In my opinion, Fuloria, Andler, and Kirk are analogous art because they are in the same field as the '687 patent (social networks), and their methods would have been reasonably pertinent to the problems facing the named inventors, because all three references concern social networking and the management and promotion of content on social networks. (Ex. 1004, Title, Abstract, ¶¶0001-0024)(Ex. 1005, Title, Abstract)(Ex. 1008, Title, Abstract, ¶0002)(Ex. 1001, Title, Abstract).

Claim Mapping

208. This section maps the challenged claims to the relevant disclosures of Fuloria, Andler, and Kirk where the claim text appears in bold-italics, and the relevant mapping follows the claim text.

CLAIM 4

“4. The system of claim 1, wherein the computer system is further programmed to:

obtain a level of user activity by the third user with an application executing at a remote user device, the application displaying the user interface;

determine an amount of resources to award the first user based on the level of user activity; and

increment the user account balance based on the amount of resources.”

CLAIM 16

“16. The method of claim 13, the method further comprising:

obtaining, by the computer system, a level of user activity by the third user with an application executing at a remote user device, the application displaying the user interface;

determining, by the computer system, an amount of resources to award the first user based on the level of user activity; and

incrementing, by the computer system, the user account balance based on the amount of resources.”

209. Claims 4 and 16 are directed to awarding resources to a user (a first user) based on a different user’s **(a third user) level of activity with an application executing at a remote user device, the application displaying the user interface** (i.e., the application that displays the social network’s user interface). In my opinion, these claims are obvious over Fuloria in view of Andler, further in view of Kirk.

210. Kirk is directed to users earning points in connection with social media networks. (Ex. 1008, Abstract, ¶¶0007-0009, 0031). Kirk discloses that a social media network can be, for example, Facebook. (Ex. 1008, ¶¶0012, 0053, 0056-0057,

0109). Kirk explains that “the system can be configured so that a user is awarded points based on the activity of others.” (Ex. 1008, ¶¶0037-0038, 0034). Kirk explains:

“For example, a first user can be awarded points when other users take an action in response [to] the first user. In this configuration, a user can post, but will not receive points until some one else interacts with that post (by for example, commenting or liking that post).”

(Ex. 1008, ¶¶0038-0047). Kirk provides a number of different examples of ways in which points can be awarded to one user based on the actions of another user with respect to a social media content item. (Ex. 1008, ¶¶0038-0047). In my opinion, it would be obvious in view of Kirk’s teachings to award credits (**resources**) to a first user based on a third user interacting with content posted by a first user in the context of the combined system. Doing so rewards a user posting engaging content for generating engagement by other users, and permits a user to promote more content, thereby generating further engagements.

XIV. GROUND 5: CLAIMS 7-10 AND 19-22 ARE OBVIOUS IN VIEW OF FULORIA AND ANDLER, FURTHER IN VIEW OF CHEUNG

211. In my opinion, claims 7-10 and 19-22 are obvious over Fuloria (Ex. 1004) in view of Andler (Ex. 1005), U.S. Patent No. 7,835,943 B2 (“Cheung”)(Ex. 1009).

212. Fuloria and Andler are discussed in Ground 1, the entirety of which is

incorporated herein.

213. I understand that Cheung was not cited during prosecution of any application leading to the '687 patent.

A. Effective Prior Art Dates

214. **Cheung** is a U.S. patent that issued on November 16, 2010 (Ex. 1009), and I understand that it is thus prior art.

B. Overview of the Combination and Rationale (Motivation) Supporting Obviousness

215. Claims 7-10 and 19-22 are dependent claims which depend from claims 1 and 13, respectively. These claims are directed to functionality relating to user rankings, obtaining of engagements to achieve a particular ranking, as well as maintaining a desired ranking. In my opinion, these claims are obvious over Fuloria in view of Andler, further in view of Cheung.

216. Cheung is generally directed to advertiser bidding for placement of search results in an online environment. (Ex. 1009, Abstract, 5:34-10:18). Cheung describes a system in which an advertiser can “specify a desired rank in the search results displayed to the searcher” (i.e., the “ordinal positioning of the search listing”) and the system can automatically bid on behalf of the advertiser in order to achieve or maintain that ranking. (Ex. 1009, 6:16-7:7, 8:18-9:15). Cheung explains that bids can be monetary or in the form of “credit points.” (Ex. 1009, 6:16-26). Cheung discloses a system in which “an advertiser can specify a desired rank without

specifying a bid” and refers to this functionality as “Place Protection.” Cheung explains that “[i]n this case, the advertiser wishes to be at the desired rank no matter what CPC [cost per click] is required to maintain that rank.” (Ex. 1009, 4:59-64, 6:1-6, 6:38-52, 8:61-9:16, 10:3-13). If an advertiser elects to participate in Place Protection, the system automatically “implement[s] the following instructions on behalf of the advertiser:

1. Adjust the CPC of my listing to maintain my desired rank.
2. Set my CPC no higher than necessary to satisfy these instructions.
3. Do not set the CPC of my listing such that the application of the standing instructions for competing listings would produce a result inconsistent with these instructions.”

(Ex. 1009, 8:61-9:16).

217. While Cheung is specifically directed to bidding resources to obtain a ranking in the context of online advertising, a PHOSITA would recognize that its teachings can be applied in the context of users expending resources to maintain other kinds of rankings. Indeed, Fuloria itself treats the promotion of content by a user by means of a “super-like” as similar to promotion of content by advertisers. (Ex. 1004, ¶¶0035-0039, 0057, 0062)(“The ‘super-liked’ story is priced and directed toward users in a similar manner as a social ad.”). It would be obvious in view of Cheung’s teachings to implement comparable functionality in the context of the

combined system in order to allow the system to achieve or maintain a user's desired ranking in the context of an engagement score with respect to a content item. Doing so allows the system to provide the benefits identified in Cheung, namely allowing for the automatic and dynamic execution of a user's instructions to maintain a particular online ranking in exchange for resources.

C. Reasonable Expectation of Success

218. See Ground 1. In my opinion, a PHOSITA in the relevant timeframe would have had a reasonable expectation of success in incorporating Cheung's automatic bidding and ranking functionality as described in this Ground into the combined system as described in Ground 1. Not only were the software systems involved predictable, but it would have been well within ordinary skill to incorporate appropriate algorithms to achieve the claimed functionality into the combined system, particularly in view of Cheung's detailed teachings and exemplary algorithms. (Ex. 1009, 26:22-49:55).

D. Analogous Art

219. Fuloria and Andler are analogous art as described in Ground 1. In my opinion, Cheung is also analogous art because its methods would have been reasonably pertinent to the problems facing the named inventors, including providing systems which facilitate users expending resources in order to "get noticed by or otherwise be distinguished from other users." (Ex. 1001, 1:42-44). While

Cheung is specifically directed to bidding resources to obtain a ranking in the context of online advertising, a PHOSITA would recognize that its teachings can be applied in the context of users expending resources to maintain other kinds of rankings. Indeed, Fuloria itself treats the promotion of content by a user by means of a “super-like” as similar to promotion of content by advertisers. (Ex. 1004, ¶¶0035-0039, 0057, 0062)(“The ‘super-liked’ story is priced and directed toward users in a similar manner as a social ad.”). A PHOSITA would appreciate that promotion in the context of Fuloria and advertising are equivalent and that this is the case because both seek to increase the reach of online content and facilitate engagement with that content.

Claim Mapping

This section maps the challenged claims to the relevant disclosures of Fuloria, Andler, and Cheung where the claim text appears in bold-italics, and the relevant mapping follows the claim text.

CLAIM 7

“7. The system of claim 6, wherein the computer system is further programmed to:

determine a number of engagements with respect to the networked content item required to achieve a certain rank, wherein the certain rank is associated with a certain number of engagements with respect to the networked content item relative to other numbers of engagements from other users; and

provide, in the user interface, an option to obtain the determined

number of engagements to achieve the certain rank.”

220. See Ground 1, claims 1 and 6. In my opinion, this claim is obvious over Fuloria and Andler, further in view of Cheung. As set forth under Ground 1, a user can exchange resources in exchange for engagements, and the combined system displays a ranking of users based on their engagement scores with respect to a piece of content. In my opinion, it was obvious in view of Cheung to provide functionality to allow a user to indicate a desire to obtain a particular engagement score ranking (e.g., the highest or “top” ranking)(see, e.g., Ex. 1009, 8:61-65, 22:38-55), and for the system to determine the number of engagements necessary to obtain the ranking and to provide an option for the user to authorize the system to obtain the required engagements (in exchange for resources). (Ex. 1009, 9:4-15); see Rationale (Motivation) Supporting Obviousness Section above.

CLAIM 8

“8. The system of claim 7, wherein the certain rank comprises a top rank, and wherein the number of engagements with respect to the networked content item required to achieve the certain rank comprises a highest number of engagements with respect to the networked content item relative to other numbers of engagements from other users.”

221. See claim 7. Cheung teaches that the rank can be a highest (**top**) rank. (see, e.g., Ex. 1009, 8:61-9:15, 22:38-55). In the combination, the **highest number of engagements with respect to the networked content item relative to other**

numbers of engagements from other users results in a “**top**” ranking in terms of engagement score as compared to other users who have “super-liked” or promoted the content item.

CLAIM 9

“9. The system of claim 8, wherein the computer system is further programmed to:

determine an amount of resources required to obtain the required number of engagements to achieve the top rank;

determine that an available balance of resources in the user account balance associated with the third user is less than the amount of resources required to obtain the required number of engagements to achieve the top rank; and

provide, in the user interface, an option to obtain additional resources.”

222. In my opinion, it was further obvious for the system to provide functionality that allows a user to **obtain additional resources** (credits) in the event that the credits in the user’s account balance are insufficient to carry out the user’s instructions to obtain a top ranking. Cheung already teaches providing a user interface (via the Web) allowing a user to replenish funds in their account, and will provide warnings when the user’s account needs to be replenished. (Ex. 1009, 17:39-18:41). Adding similar functionality to Fuloria (specifically, by providing the user a warning, together with the opportunity to obtain additional credits sufficient to perform a desired action) would have been obvious, because such mechanisms

were commonplace online in the relevant timeframe, and would merely involve the incorporation of standard online business functionality (account replenishment) into the combined system. Such functionality would have served the obvious business purpose of providing a streamlined way for a user to obtain sufficient system resources in order to carry out desired actions, and would thus facilitate such transactions.

CLAIM 10

“10. The system of claim 7, wherein computer system is further programmed to:

obtain an instruction to maintain the certain rank, wherein the instruction causes the certain number of engagements to be obtained on behalf of the third user without intervention by the third user and without respect to whether or not a user device used by the third user is connected to a network.”

223. See claim 7. Cheung discloses a system in which “an advertiser can specify a desired rank without specifying a bid” and refers to this as “Place Protection.” Cheung explains that “[i]n this case, the advertiser wishes to be at the desired rank no matter what CPC [cost per click] is required to maintain that rank” and the system automatically “implement[s] [this] instructions on behalf of the advertiser” without further user intervention. (Ex. 1009, 4:59-64, 6:1-6, 6:38-52, 8:61-9:16, 10:3-13). Cheung teaches that the user can be provided notifications of events by email, indicating that its actions are being carried out automatically, and

on the “server side,” without the user needing to be logged in to Cheung’s system to administer the actions. (Ex. 1009, 17:39-62). In my opinion, it would be obvious to implement corresponding automatic functionality in the combined system in order to allow the system to automatically (**without intervention**) expend resources to obtain the engagements necessary to obtain a user’s desired ranking **without respect to whether or not a user device used by the third user is connected to a network**. Indeed, allowing the very advantage of having automatic actions is to allow the user to not oversee them. This purpose would obviously be defeated if the user were required to intervene in the actions or be logged in at the time of the action.

CLAIM 19

“19. The method of claim 18, the method further comprising:

determining, by the computer system, a number of engagements with respect to the networked content item required to achieve a certain rank, wherein the certain rank is associated with a certain number of engagements with respect to the networked content item relative to other numbers of engagements from other users; and

providing, by the computer system, in the user interface, an option to obtain the determined number of engagements to achieve the certain rank.”

224. See claim 7 analysis.

CLAIM 20

“20. The method of claim 19, wherein the certain rank comprises a top rank, and wherein the number of engagements with respect to the networked content item required to achieve the certain rank

comprises a highest number of engagements with respect to the networked content item relative to other numbers of engagements from other users.”

225. See claim 8 analysis.

CLAIM 21

“21. The method of claim 20, the method further comprising:

determining, by the computer system, an amount of resources required to obtain the required number of engagements to achieve the top rank;

determining, by the computer system, that an available balance of resources in the user account balance associated with the third user is less than the amount of resources required to obtain the required number of engagements to achieve the top rank; and

providing, by the computer system, in the user interface, an option to obtain additional resources.”

226. See claim 9 analysis.

CLAIM 22

“22. The method of claim 19, the method further comprising:

obtaining, by the computer system, an instruction to maintain the certain rank, wherein the instruction causes the certain number of engagements to be obtained on behalf of the first user without intervention by the first user and without respect to whether or not a user device used by the first user is connected to a network.”

227. See claim 10 analysis.

XV. OATH

228. This declaration and my opinions herein are made to the best of my

knowledge and understanding, and based on the material available to me, at the time of signing this declaration. I declare under penalty of perjury under the laws of the United States of America that all statements made of my own knowledge are true and that all statements made on information and belief are believed to be true. I understand that willful false statements and the like are punishable by fine or imprisonment, or both (18 U.S.C. 1001) and may jeopardize the validity of the application or any patent issuing thereon.

Date: December 18, 2024

