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25 **UNITED STATES DISTRICT COURT**  
26 **FOR THE CENTRAL DISTRICT OF CALIFORNIA**

27 CORRINO HOLDINGS LLC,

28 Plaintiff,

v.

FACEBOOK, INC.,

Defendant.

Case No. 2:18-cv-8541

**COMPLAINT FOR PATENT  
INFRINGEMENT**

**JURY TRIAL DEMANDED**

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**COMPLAINT FOR PATENT INFRINGEMENT**

1. Plaintiff Corrino Holdings LLC (“Corrino” or “Plaintiff”) hereby asserts the following claims for patent infringement against Defendant Facebook, Inc. (“Facebook” or “Defendant”), and alleges as follows:

**SUMMARY**

2. Corrino owns United States Patent Nos. 6,353,398, 7,843,331, 7,982,599, 7,525,450, 7,847,685, 7,716,149, 7,958,104, 9,262,533, and 9,767,164 (collectively, the “Patents-in-Suit”).

3. Facebook infringes the Corrino Patents-in-Suit by implementing, without authorization, Corrino’s proprietary technologies in a number of its commercial products and services, including, *inter alia*, the Facebook mobile application and www.facebook.com website, which are marketed, offered and distributed to users of mobile and other devices throughout the United States, including in this District.

4. By this action, Corrino seeks to obtain compensation for the harm Corrino has suffered as a result of Facebook’s unauthorized implementation of Corrino’s patented technologies.

**NATURE OF THE ACTION**

5. This is a civil action for patent infringement arising under the patent laws of the United States, 35 U.S.C. § 1 *et seq.*

6. Facebook has infringed and continues to infringe, has induced and continues to induce infringement of, and has contributed to and continues to contribute to infringement of at least one or more claims of Corrino’s Patents-in-Suit at least by making, using, selling, and/or offering to sell its products and services for mobile and other devices in the United States, including in this District.

7. Corrino is the legal owner by assignment of the Patents-in-Suit, which were duly and legally issued by the United States Patent and Trademark Office (“USPTO”). Corrino seeks monetary damages for Facebook’s infringement of the

1 Patents-in-Suit.

2 **THE PARTIES**

3 8. Plaintiff Corrino Holdings LLC is a Texas limited liability company  
4 with its principal place of business at 17330 Preston Road, Suite 200, Dallas, Texas  
5 75252. Corrino is the owner of intellectual property rights at issue in this action.

6 9. On information and belief, Defendant Facebook, Inc. is a Delaware  
7 corporation with a principal place of business at 1 Hacker Way, Menlo Park,  
8 California 94025. On information and belief, Facebook maintains at least one  
9 office in this District at 12777 West Jefferson Boulevard, Los Angeles, California  
10 90066. On information and belief, Facebook also operates and owns the website  
11 located at [www.facebook.com](http://www.facebook.com) and markets, offers, and distributes its website  
12 services and applications, such as the Facebook mobile application, throughout the  
13 United States, including in this District.

14 10. On information and belief, Facebook directly and/or indirectly  
15 develops, designs, manufactures, distributes, markets, offers to sell and/or sells  
16 infringing products and services in the United States, including in the Central  
17 District of California, and otherwise purposefully directs infringing activities to this  
18 District in connection with its products and services.

19 **JURISDICTION AND VENUE**

20 11. As this is a civil action for patent infringement arising under the patent  
21 laws of the United States, 35 U.S.C. § 1 *et seq.*, this Court has subject matter  
22 jurisdiction over the matters asserted herein under 28 U.S.C. §§ 1331 and 1338(a).

23 12. This Court has personal jurisdiction over Facebook, in part because  
24 Facebook does continuous and systematic business in this District, including by  
25 providing infringing products and services to the residents of the Central District of  
26 California that Facebook knew would be used within this District, and by soliciting  
27 business from the residents of the Central District of California. For example,  
28 Facebook is subject to personal jurisdiction in this Court because, *inter alia*, and on

1 information and belief, Facebook has a regular and established place of business at  
2 its offices in the Central District of California (and elsewhere in the State of  
3 California), and directly and through agents regularly does, solicits, and transacts  
4 business in the Central District of California (and elsewhere in the State of  
5 California), including, for example, through its www.facebook.com website and  
6 mobile application, which are marketed, offered, and distributed to and utilized by  
7 users of mobile and other devices in this District and throughout the State of  
8 California.

9 13. In particular, Facebook has committed and continues to commit acts  
10 of infringement in violation of 35 U.S.C. § 271, and has made, used, marketed,  
11 distributed, offered for sale, sold, and/or imported infringing products in the State  
12 of California, including in this District, and engaged in infringing conduct within  
13 and directed at or from this District. For example, Facebook has purposefully and  
14 voluntarily placed its website and mobile application into the stream of commerce  
15 with the expectation that such an infringing website and mobile application will be  
16 used in this District. Facebook’s infringing website and mobile application have  
17 been and continue to be distributed to and used in this District. Facebook’s acts  
18 cause and have caused injury to Corrino, including within this District.

19 14. Venue is proper in this District under the provisions of 28 U.S.C. §§  
20 1391 and 1400(b) at least because a substantial part of the events or omissions  
21 giving rise to the claims occurred in this District, and because Facebook has  
22 committed acts of infringement in this District and has a regular and established  
23 place of business in this District.

24 **PATENTS-IN-SUIT**

25 **The ‘398 Patent**

26 15. U.S. Patent No. 6,353,398 (“the ‘398 Patent”) is entitled “System for  
27 dynamically pushing information to a user utilizing global positioning system,” and  
28 was issued on March 5, 2002. A true and correct copy of the ‘398 Patent is attached

1 as Exhibit A.

2 16. The '398 Patent was filed on October 22, 1999 as U.S. Patent  
3 Application No. 09/426,065.

4 17. Corrino is the owner of all rights, title, and interest in and to the '398  
5 Patent, with the full and exclusive right to bring suit to enforce the '398 Patent,  
6 including the right to recover for past infringement.

7 18. The '398 Patent is valid and enforceable under United States Patent  
8 Laws.

9 19. The '398 Patent recognized problems with conventional global  
10 positioning system ("GPS") technology. For instance, the '398 Patent recognized  
11 that, while conventional GPS technology could provide users with "location and  
12 directional information, more specific and detailed information related to the  
13 location is often needed." Exhibit A at 1:21-24.

14 20. In this regard, the '398 Patent discloses, among other things, that "[a]  
15 more powerful system is therefore necessary to provide mobile users with specific  
16 information relating to the point in time the user is at a specific location." *Id.* at  
17 1:34-37. In other words, the '398 Patent recognized that, because of the  
18 shortcomings of conventional GPS technology, "it would be desirable for a system  
19 which can provide relevant information to location-specific users at relevant points  
20 in time." *Id.* at 1:39-41. The claimed inventions of the '398 Patent involve such a  
21 system. The '398 Patent also discloses that "[t]his type of system is currently not  
22 provided for with conventional systems." *Id.* at 1:37-38.

23 **The Inventions Claimed in the '398 Patent Improved Technology &**  
24 **Were Not Well-Understood, Routine, or Conventional**

25 21. Given the state of the art at the time of the inventions of the '398  
26 Patent, including the deficiencies in global positioning systems of the time, the  
27 inventive concepts of the '398 Patent cannot be considered to be conventional, well-  
28 understood, or routine. *See, e.g.*, Exhibit A at 1:15-41. The '398 Patent discloses,

1 among other things, an unconventional solution to problems arising in the context  
2 of GPS-based information delivery systems, namely, that such systems did not  
3 provide specific and detailed information relating to the point in time that a user  
4 was at a particular geographic location. *See, e.g., id.* at 1:34-41 (“A more powerful  
5 system is . . . necessary to provide mobile users with specific information relating  
6 to the point in time the user is at a specific location. This type of system is currently  
7 not provided for with conventional systems.”).

8 22. The ‘398 Patent offered an unconventional, technological solution to  
9 such problems resulting in a more powerful location-based information delivery  
10 system than existing GPS-based information delivery systems. *See, e.g., id.* In  
11 particular, the ‘398 Patent provided an unconventional architecture comprising an  
12 information delivery system located remotely from users’ hand-held mobile  
13 devices, in which the information delivery system comprised a system for  
14 monitoring the geographic position of such mobile devices and a directed  
15 information system for linking relevant information to mobile devices associated  
16 with a particular geographic region and facilitating the delivery of the relevant  
17 information to devices when located in the particular geographic region. *See, e.g.,*  
18 Exhibit A at 2:53-3:33; Claims 1, 7, 8.

19 23. Indeed, it was not well-understood, routine, or conventional at the time  
20 of the invention of the ‘398 Patent to have a “directed information system”  
21 configured to (i) link information related to specific location of users’ mobile  
22 devices, (ii) access a database comprising region-specific information, and (iii)  
23 employ push technology to deliver region-specific information to users’ mobile  
24 devices. *See* Claims 1, 7, 8. Moreover, it was not well-understood, routine, or  
25 conventional at the time of the invention of the ‘398 Patent to have a “directed  
26 information system” configured to employ push technology to deliver information  
27 at points in time when users’ mobile devices are located within a specific region  
28 related to that information. *See* Claims 7, 8. Further yet, it was not well-

1 understood, routine, or conventional at the time of the invention of the '398 Patent  
2 to have a system configured to (i) detect movement of users' mobile devices and  
3 (ii) employ push technology to deliver information to users' mobile devices, such  
4 that (a) information is pushed to a user's mobile device in a first geographical region  
5 associated with a first storage data section as the user moves within a predetermined  
6 distance of the first geographical region, and (b) information is pushed to the user's  
7 mobile device in a second geographical region associated with a second storage  
8 data section as the user moves from the first geographical region to within a  
9 predetermined distance of the second geographical region. *See* Claim 10. These  
10 are just exemplary reasons why the inventions claimed in the '398 Patent were not  
11 well-understood, routine, or conventional at the time of the invention of the '398  
12 Patent.

13 24. Additionally, the '398 Patent's more powerful location-based  
14 information delivery system improved the user interface of electronics devices  
15 (*e.g.*, mobile devices) in that a user would be presented with "relevant visual  
16 information related to a particular region at a particular point in time." Exhibit A  
17 at 3:20-22. In other words, the '398 Patent's specific improvement over existing  
18 technology resulted in a user's electronics device displaying particular information  
19 that is most relevant to a user at a given point in time.

20 25. Consistent with the problems addressed being rooted in GPS-based  
21 information delivery systems, the '398 Patent's solutions naturally are also rooted  
22 in that same technology that cannot be performed solely with pen and paper or in  
23 the human mind. Indeed, using pen and paper or a human mind would ignore the  
24 stated purpose of the '398 Patent and the problem it was specifically designed to  
25 address. Doing so would also run counter to the inventors' detailed description of  
26 the inventions and the language of the claims and be a practical impossibility.  
27 Likewise, at least because the '398 Patent's claimed solutions address problems  
28 rooted in GPS-based information delivery systems, these solutions are not merely

1 drawn to longstanding human activities.

2 **The ‘331 Patent**

3 26. U.S. Patent No. 7,843,331 (“the ‘331 Patent”) is entitled “System for  
4 dynamically pushing information to a user utilizing global positioning system,” and  
5 was issued on November 30, 2010. A true and correct copy of the ‘331 Patent is  
6 attached as Exhibit B.

7 27. The ‘331 Patent was filed on April 15, 2004 as U.S. Patent Application  
8 No. 10/824,962, which is a continuation of U.S. Patent Application No. 09/523,022,  
9 filed on March 10, 2000, and now U.S. Patent No. 6,741,188, which is a  
10 continuation-in-part of U.S. Patent Application No. 09/426,065, filed October 22,  
11 1999, and now the ‘398 Patent.

12 28. Corrino is the owner of all rights, title, and interest in and to the ‘331  
13 Patent, with the full and exclusive right to bring suit to enforce the ‘331 Patent,  
14 including the right to recover for past infringement.

15 29. The ‘331 Patent is valid and enforceable under United States Patent  
16 Laws.

17 30. Corrino incorporates by reference and re-alleges the foregoing  
18 paragraph numbers 19-25 of this Complaint as if fully set forth herein.

19 31. Like the inventions claimed in the ‘398 Patent—a parent to the ‘331  
20 Patent—the inventions claimed in the ‘331 Patent were not well-understood,  
21 routine, or conventional.

22 32. Indeed, it was not well-understood, routine, or conventional at the time  
23 of the invention of the ‘331 Patent to have a system configured to initiate the  
24 transmission of information to a user’s communications device if the  
25 communications device’s indicated geographic position changes from a first  
26 position that is greater than a predefined distance from a geographic region  
27 associated with an information source to a second position that is within a  
28 predefined distance from a geographic region associated with the information



1 source. *See* Claims 1, 11, 21. Moreover, it was not well-understood, routine, or  
2 conventional at the time of the invention of the ‘331 Patent to have a system  
3 configured to (i) maintain an index of information sources, each of which is  
4 associated with at least one geographic region and a demographic code, and (ii)  
5 initiate the transmission of the information to the user’s communications device in  
6 which the source of that information is associated with a demographic code  
7 associated with the communications device. *See* Claims 7, 17. Further yet, it was  
8 not well-understood, routine, or conventional at the time of the invention of the  
9 ‘331 Patent to have a system configured to initiate the transmission of the  
10 information to the user’s communications device in which the information is based  
11 on the day and time that the communications device’s geographic position changes  
12 from the first position to the second position. *See* Claims 9, 19. These are just  
13 exemplary reasons why the inventions claimed in the ‘331 Patent were not well-  
14 understood, routine, or conventional at the time of the invention of the ‘331 Patent.

### 15 **The ‘599 Patent**

16 33. U.S. Patent No. 7,982,599 (“the ‘599 Patent”) is entitled “System for  
17 dynamically pushing information to a user utilizing global positioning system,” and  
18 was issued on July 19, 2011. A true and correct copy of the ‘599 Patent is attached  
19 as Exhibit C.

20 34. The ‘599 Patent was filed on March 10, 2008 as U.S. Patent  
21 Application No. 12/045,601, which is a continuation of U.S. Patent Application No.  
22 10/824,962, filed on April 15, 2004, and now the ‘331 Patent, which is a  
23 continuation of U.S. Patent Application No. 09/523,022, filed on March 10, 2000,  
24 and now U.S. Patent No. 6,741,188, which is a continuation-in-part of U.S. Patent  
25 Application No. 09/426,065, filed October 22, 1999, and now the ‘398 Patent.

26 35. Corrino is the owner of all rights, title, and interest in and to the ‘599  
27 Patent, with the full and exclusive right to bring suit to enforce the ‘599 Patent,  
28 including the right to recover for past infringement.

1           36. The '599 Patent is valid and enforceable under United States Patent  
2 Laws.

3           37. Corrino incorporates by reference and re-alleges the foregoing  
4 paragraph numbers 19-25 of this Complaint as if fully set forth herein.

5           38. Like the inventions claimed in the '398 and '331 Patents—parents to  
6 the '599 Patent—the inventions claimed in the '599 Patent were not well-  
7 understood, routine, or conventional.

8           39. Indeed, it was not well-understood, routine, or conventional at the time  
9 of the invention of the '599 Patent to have an apparatus configured to initiate  
10 transmission of digital content to a user's wireless communications device in  
11 response to determining that the geographic position of the wireless  
12 communications device has changed to be within a predefined distance of a  
13 geographic area associated with the digital content during a predefined timeframe  
14 associated with the digital content. *See* Claims 1, 10, 19. Moreover, it was not  
15 well-understood, routine, or conventional at the time of the invention of the '599  
16 Patent (i) for a user's wireless communications device to be associated with one or  
17 more demographic criteria and (ii) to have an apparatus configured to initiate the  
18 transmission of the digital content to the user's wireless communications device in  
19 which the digital content is associated with at least one demographic criterion of  
20 the one or more demographic criteria associated with the wireless communications  
21 device. *See* Claims 2, 11, 20. Further yet, it was not well-understood, routine, or  
22 conventional at the time of the invention of the '599 Patent to have an apparatus  
23 that is further configured to determine whether a received geographic position of a  
24 user's wireless communications device is within a predetermined distance from one  
25 or more physical commercial establishments associated with digital content. *See*  
26 Claim 8, 17, 26. These are just exemplary reasons why the inventions claimed in  
27 the '599 Patent were not well-understood, routine, or conventional at the time of  
28 the invention of the '599 Patent.

**The ‘450 Patent**

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2 40. U.S. Patent No. 7,525,450 (“the ‘450 Patent”) is entitled “System for  
3 dynamically pushing information to a user utilizing global positioning system,” and  
4 was issued on April 28, 2009. A true and correct copy of the ‘450 Patent is attached  
5 as Exhibit D.

6 41. The ‘450 Patent was filed on August 3, 2005 as U.S. Patent  
7 Application No. 11/196,206, which is a continuation of U.S. Patent Application No.  
8 10/824,962, filed on April 15, 2004, and now the ‘331 Patent, which is a  
9 continuation of U.S. Patent Application No. 09/523,022, filed on March 10, 2000,  
10 and now U.S. Patent No. 6,741,188, which is a continuation-in-part of U.S. Patent  
11 Application No. 09/426,065, filed October 22, 1999, and now the ‘398 Patent.

12 42. Corrino is the owner of all rights, title, and interest in and to the ‘450  
13 Patent, with the full and exclusive right to bring suit to enforce the ‘450 Patent,  
14 including the right to recover for past infringement.

15 43. The ‘450 Patent is valid and enforceable under United States Patent  
16 Laws.

17 44. Corrino incorporates by reference and re-alleges the foregoing  
18 paragraph numbers 19-25 of this Complaint as if fully set forth herein.

19 45. Like the inventions claimed in the ‘398 and ‘331 Patents—parents to  
20 the ‘450 Patent—the inventions claimed in the ‘450 Patent were not well-  
21 understood, routine, or conventional.

22 46. Indeed, it was not well-understood, routine, or conventional at the time  
23 of the invention of the ‘450 Patent to have a system configured to maintain (i) an  
24 index of information sources, each of which is associated with (a) a demographic  
25 code and (b) one or more location codes, each corresponding to a geographic region  
26 and (ii) an index of users’ communications devices, each communications device  
27 being associated with a demographic code. *See* Claims 1, 11, 21. Moreover, it was  
28 not well-understood, routine, or conventional at the time of the invention of the

1 '450 Patent to have a system configured to initiate the transmission of relevant  
2 information to a user's communications device in response to receiving (i) an  
3 identifier corresponding to the communications device and (ii) an indication of the  
4 geographic position of the communications device, where the relevant information  
5 originates from an information source that is associated with both (i) a location code  
6 corresponding to a geographic region within a defined distance from the geographic  
7 position specified in the received indication, and (ii) a demographic code associated  
8 with the communications device specified in the received indication. *See* Claims  
9 1, 11, 21. Further yet, it was not well-understood, routine, or conventional at the  
10 time of the invention of the '450 Patent to have a system configured to initiate the  
11 transmission of the relevant information to the user's communications device in  
12 which the relevant information is based on the time and day that the indication of  
13 the geographic position of the communications device is received. *See* Claims 2,  
14 12. These are just exemplary reasons why the inventions claimed in the '450 Patent  
15 were not well-understood, routine, or conventional at the time of the invention of  
16 the '450 Patent.

### 17 **The '685 Patent**

18 47. U.S. Patent No. 7,847,685 ("the '685 Patent") is entitled "System for  
19 dynamically pushing information to a user utilizing global positioning system," and  
20 was issued on December 7, 2010. A true and correct copy of the '685 Patent is  
21 attached as Exhibit E.

22 48. The '685 Patent was filed on August 3, 2005 as U.S. Patent  
23 Application No. 11/195,923, which is a continuation of U.S. Patent Application No.  
24 10/824,962, filed on April 15, 2004, and now the '331 Patent, which is a  
25 continuation of U.S. Patent Application No. 09/523,022, filed on March 10, 2000,  
26 and now U.S. Patent No. 6,741,188, which is a continuation-in-part of U.S. Patent  
27 Application No. 09/426,065, filed October 22, 1999, and now the '398 Patent.

28 49. Corrino is the owner of all rights, title, and interest in and to the '685

1 Patent, with the full and exclusive right to bring suit to enforce the ‘685 Patent,  
2 including the right to recover for past infringement.

3 50. The ‘685 Patent is valid and enforceable under United States Patent  
4 Laws.

5 51. The ‘685 Patent recognized several problems with conventional  
6 technologies. Indeed, like the ‘398 Patent, the ‘685 Patent recognized problems  
7 with conventional GPS technology. For instance, the ‘685 Patent recognized that,  
8 while conventional GPS technology could provide users with “location and  
9 directional information, more specific and detailed information related to the  
10 location is often needed.” Exhibit E at 1:38-41. In this regard, the ‘685 Patent  
11 discloses, among other things, that “[a] more powerful system is therefore  
12 necessary to provide mobile users with specific information relating to the point in  
13 time the user is at a specific location.” *Id.* at 1:50-52. In other words, the ‘685  
14 Patent recognized that, because of the shortcomings of conventional GPS  
15 technology, “it would be desirable for a system which can provide relevant  
16 information to location-specific users at relevant points in time.” *Id.* at 1:55-57.  
17 The ‘685 Patent also discloses that “[t]his type of system is currently not provided  
18 for with conventional systems.” *Id.* at 1:53-54.

19 52. The ‘685 Patent also recognized problems with conventional query  
20 technology: “For example, an internet query of restaurants would normally retrieve  
21 thousands of hits on a conventional search engine.” Exhibit E at 2:52-54. In  
22 contrast, the ‘685 Patent describes how its claimed query technology was an  
23 improvement over the conventional query technology: “By relating the search to  
24 the user’s physical location, only those restaurants associated with the user’s  
25 identified region, are provided. Thus, valuable time is saved and considerable  
26 convenience is provided by retrieving information related to a particular location.”  
27 *Id.* at 2:54-59.

28 53. In this regard, the ‘685 Patent provided an improvement to the user

1 interface of a hand-held electronic device by facilitating the display of a limited set  
2 of search-result information: “The present invention also provides a hand-held  
3 system which allows users to receive region-specific information directed to the  
4 user’s particular location. For example, a user may be situated in a new location,  
5 and the user may then request and receive information about restaurants within a  
6 defined area defined by the user. For example, the user may query for restaurants  
7 within three blocks or within the entire city and receive specific audio and/ or  
8 display information related to the query.” *Id.* at 2:30-38.

9 54. Similarly, the ‘685 Patent states that if its invention is used to “search  
10 the Internet for a sushi restaurant” in the “downtown Seattle, Wash.” area, the query  
11 can be focused on a “one square mile region” such that “[t]he search results will  
12 then be limited to websites relating to sushi restaurants originating and/or  
13 associated with that particular one square mile region. Thus, the user is able to  
14 quickly locate a sushi restaurant within one square mile of his/her present location.”  
15 Exhibit E at 5:60-6:10. The ‘685 Patent then distinguishes conventional systems:  
16 “A similar type of search using conventional systems employing search terms such  
17 as ‘sushi,’ ‘Seattle’ and ‘restaurant’ would likely have resulted in thousands of  
18 hits—most of which are not of interest to the user.” *Id.* at 6:11-14.

19 55. According to the ‘685 Patent, in another exemplary use of its  
20 invention, “if the data receiver identifier is related to a single person who frequents  
21 expensive restaurants and shops, the server 240 can direct the search engine 260 to  
22 retrieve information related to the user’s preferences while also limiting the search  
23 to the user’s geographic location. Thus, substantially relevant information to a  
24 user’s time and place is directed to the user while extraneous information that may  
25 be retrieved as with conventional systems is substantially removed.” Exhibit E at  
26 11:30-38.

1        **The Inventions Claimed in the ‘685 Patent Improved Technology & Were**  
2                                **Not Well-Understood, Routine, or Conventional**

3            56.     Given the state of the art at the time of the inventions of the ‘685  
4 Patent, including the deficiencies in Internet search engine systems of the time, the  
5 inventive concepts of the ‘685 Patent cannot be considered to be conventional, well-  
6 understood, or routine. *See, e.g.*, Exhibit E at 2:52-59; 5:60-6:14; 11:30-38. The  
7 ‘685 Patent discloses, among other things, an unconventional solution to problems  
8 arising in the context of Internet search engine systems, namely, that such systems  
9 returned too many search results, much of which was of little to no interest to the  
10 user. *See, e.g., id.* at 6:11-14.

11           57.     The ‘685 Patent offered a technological solution to such problems  
12 resulting in a location-based search engine system that facilitated providing more  
13 relevant, focused search results to a user than existing search engine systems. *See,*  
14 *e.g., id.* In particular, the ‘685 Patent provided a specific, unconventional solution  
15 for returning such focused search results that involved (i) processing a specific type  
16 of search query comprising a particular combination of “an identifier corresponding  
17 to [a] communications device,” “an indication of the geographic position of the  
18 communications device,” “a search distance,” and “at least one search term,” and  
19 (ii) based on the search query and one or more “location code[s]” associated with  
20 search results, obtaining focused search results. *See, e.g.*, Exhibit E at Claims 1,  
21 19.

22           58.     Indeed, it was not well-understood, routine, or conventional at the time  
23 of the invention of the ‘685 Patent to have a system configured to receive from a  
24 user’s communications device a search query comprising (i) an identifier  
25 corresponding to the communications device, (ii) an indication of the geographic  
26 position of the communications device, (iii) a search distance, and (iv) at least one  
27 search term. *See* Claims 1, 17, 19. Moreover, it was not well-understood, routine,  
28 or conventional at the time of the invention of the ‘685 Patent to have a system

1 configured to initiate the transmission of a list of one or more search results to the  
2 user's communications device specified in the search query, where the list of search  
3 results comprises at least one search result that is associated with a location code  
4 corresponding to a geographic region that is a geographic region that is within the  
5 specified search distance from the geographic position of the communications  
6 device specified in the received search query. *See* Claims 1, 17, 19. These are just  
7 exemplary reasons why the inventions claimed in the '685 Patent were not well-  
8 understood, routine, or conventional at the time of the invention of the '685 Patent.

9       59. Additionally, the '685 Patent's more powerful location-based search  
10 engine system improved the user interface of electronics devices (*e.g.*, mobile  
11 devices) by removing extraneous information typically returned by conventional  
12 search engine systems and providing the user with the most relevant search results  
13 related to the user's physical location. *See, e.g.*, Exhibit E at 2:54-59, 5:60-6:10,  
14 11:30-38. In other words, the '685 Patent's specific improvement over existing  
15 technology resulted in a user's electronics device displaying particular search  
16 results that are most relevant to a user at a given point in time.

17       60. Consistent with the problems addressed being rooted in Internet search  
18 engine systems, the '685 Patent's solutions naturally are also rooted in that same  
19 technology that cannot be performed solely with pen and paper or in the human  
20 mind. Indeed, using pen and paper or a human mind would ignore the stated  
21 purpose of the '685 Patent and the problem it was specifically designed to address.  
22 In this respect, the point of a user initiating an Internet query is to obtain information  
23 that the user does not currently possess. As such, using pen and paper or a human  
24 mind would not provide a solution to the problem addressed by the '685 Patent and  
25 run counter to the inventors' detailed description of the inventions and the language  
26 of the claims and be a practical impossibility. Likewise, at least because the '685  
27 Patent's claimed solutions address problems rooted in Internet search engine  
28 systems, these solutions are not merely drawn to longstanding human activities.



**The ‘149 Patent**

1  
2 61. U.S. Patent No. 7,716,149 (“the ‘149 Patent”) is entitled “Method,  
3 device, and program product for a social dashboard associated with a persistent  
4 virtual environment,” and was issued on May 11, 2010. A true and correct copy of  
5 the ‘149 Patent is attached as Exhibit F.

6 62. The ‘149 Patent was filed on April 11, 2006 as U.S. Patent Application  
7 No. 11/402,399.

8 63. Corrino is the owner of all rights, title, and interest in and to the ‘149  
9 Patent, with the full and exclusive right to bring suit to enforce the ‘149 Patent,  
10 including the right to recover for past infringement.

11 64. The ‘149 Patent is valid and enforceable under United States Patent  
12 Laws.

13 65. The ‘149 Patent discloses, among other things, “a user interface for  
14 monitoring the social health of a persistent virtual environment.” Exhibit F at  
15 Abstract. The ‘149 Patent also states that “no diagnostic tools are available to  
16 timely measure the social aspects of player interactions in [a] persistent virtual  
17 environment or to measure or monitor the health of the online player community in  
18 a persistent virtual environment.” *Id.* at 1:48-52. In other words, as described in  
19 the ‘149 Patent, the conventional “analysis results only reflect the state of the  
20 persistent virtual environment at the time the data was collected,” and therefore,  
21 “the analysis is not timely, has no capability to forecast problems, and only operates  
22 from single source of information.” *Id.* at 1:58-61.

23 66. In discussing the shortcomings of the prior art, the ‘149 Patent  
24 recognizes that “it would be advantageous to provide a way to timely monitor  
25 persistent virtual environments and to measure, monitor, and treat the health of  
26 online player communities within persistent virtual environments.” Exhibit F at  
27 2:19-22. The claimed invention of the ‘149 Patent provides such a mechanism.

1        **The Inventions Claimed in the ‘149 Patent Improved Technology & Were**  
2                                **Not Well-Understood, Routine, or Conventional**

3            67.     Given the state of the art at the time of the inventions of the ‘149  
4 Patent, including the deficiencies in monitoring technology for virtual persistent  
5 environments, the inventive concepts of the ‘149 Patent cannot be considered to be  
6 conventional, well-understood, or routine. *See, e.g.*, Exhibit F at 1:48-52, 1:58-61,  
7 2:19-22. The ‘149 Patent discloses, among other things, an unconventional solution  
8 to problems arising in the context of monitoring virtual persistent environments,  
9 namely, that existing monitoring tools were untimely, only monitoring certain  
10 aspects, and operating on a narrow source of information. *See, e.g., id.* at 1:48-52,  
11 1:58-61.

12            68.     The ‘149 Patent offered a technological solution to such problems  
13 resulting in monitoring technology for virtual persistent environments that  
14 addressed these problems and also facilitated providing an improved user interface  
15 for electronics devices. In particular, the ‘149 Patent provided a specific,  
16 unconventional solution for monitoring a state of a virtual persistent environment  
17 and displaying a limited set of information related to that monitoring to the user  
18 which involved “displaying, at a computer system, a visualization that represents a  
19 social aspect of said persistent virtual environment,” the “visualization responsive  
20 to a metric” and “represents an overall interactivity level,” and “displaying, at the  
21 computer system, responsive to [a] selection command, a second visualization that  
22 represents drill-down information associated with said metric.” *See, e.g.*, Exhibit F  
23 at Claims 1, 8, 15.

24            69.     Indeed, it was not well-understood, routine, or conventional at the time  
25 of the invention of the ‘149 Patent for a computer system to display a visualization  
26 that represents a social aspect of a persistent virtual environment, where the  
27 visualization is responsive to a metric and represents an overall interactivity level  
28 within the persistent virtual environment. *See* Claims 1, 8, 15. Moreover, it was

1 not well-understood, routine, or conventional at the time of the invention of the  
2 ‘149 Patent for a computer system to (i) display the visualization that represents the  
3 social aspect of the persistent virtual environment and (ii) responsive to a selection  
4 command, display a second visualization that represents drill-down information  
5 associated with the metric. *See* Claims 1, 8, 15. These are just exemplary reasons  
6 why the inventions claimed in the ‘149 Patent were not well-understood, routine,  
7 or conventional at the time of the invention of the ‘149 Patent.

8 70. Indeed, the ‘149 Patent’s virtual persistent environment monitoring  
9 system improved the user interface of electronics devices by allowing the user to  
10 see the most relevant information related to a particular metric representing an  
11 interactivity level within the virtual environment. In this respect, the ‘149 Patent  
12 claims recite a particular manner of summarizing and presenting specific, virtual-  
13 environment metric related information in electronic devices.

14 71. Consistent with the problems addressed being rooted in monitoring  
15 technology for virtual persistent environments – that, by virtue of the monitored  
16 environment being virtual, requires computer network technology – the ‘149  
17 Patent’s solutions naturally are also rooted in that same technology that cannot be  
18 performed solely with pen and paper or in the human mind. Indeed, using pen and  
19 paper or a human mind would ignore the stated purpose of the ‘149 Patent and the  
20 problem it was specifically designed to address. As such, using pen and paper or a  
21 human mind would not provide a solution to the problem addressed by the ‘149  
22 Patent and run counter to the inventors’ detailed description of the inventions and  
23 the language of the claims and be a practical impossibility. Likewise, at least  
24 because the ‘149 Patent’s claimed solutions address problems rooted in monitoring  
25 technology for virtual persistent environments, these solutions are not merely  
26 drawn to longstanding human activities.

27 **The ‘104 Patent**

28 72. U.S. Patent No. 7,958,104 (“the ‘104 Patent”) is entitled “Context

1 based data searching,” and was issued on June 7, 2011. A true and correct copy of  
2 the ‘104 Patent is attached as Exhibit G.

3 73. The ‘104 Patent was filed on March 6, 2008 as U.S. Patent Application  
4 No. 12/043,889 and claims priority to Provisional Application No. 60/893,831,  
5 which was filed on March 8, 2007.

6 74. Corrino is the owner of all rights, title, and interest in and to the ‘104  
7 Patent, with the full and exclusive right to bring suit to enforce the ‘104 Patent,  
8 including the right to recover for past infringement.

9 75. The ‘104 Patent is valid and enforceable under United States Patent  
10 Laws.

11 76. The ‘104 Patent recognized problems with conventional approaches to  
12 processing search requests over communication networks. In particular, the ‘104  
13 Patent explains that, at the time of the invention of the ‘104 Patent, “information  
14 and knowledge have been digitally aggregated on a large scale in electronic based  
15 repositories.” Exhibit G at 1:20-22. Such repositories were typically “globally  
16 made available to the human populous via communications networks, such as the  
17 Internet,” and included collections of electronic documents, such as web pages. *Id.*  
18 at 22-25. The ‘104 Patent explains that although these networks employed some  
19 basic level of organization, such as by categorizing web pages by “keywords,  
20 subjects, and other relationships,” the conventional searching process was  
21 insufficient. *Id.* at 24-30. Indeed, as the inventors discovered, “[c]onventional  
22 search” techniques “often fail[ed] to properly interpret or understand the particular  
23 information desired by users,” and as a result, were “tedious and inconvenient.” *Id.*  
24 at 26-32.

25 77. In this regard, the inventors of the ‘104 Patent recognized the  
26 deficiencies with the conventional technological approaches to conducting searches  
27 of information repositories across communications networks and sought “to  
28 improve the information search techniques” used in certain technological

1 environments, such as “network environments.” *Id.* at 30-34. Accordingly, the  
2 ‘104 Patent discloses, among other things, an improvement to the “organizational  
3 and computational technique” for carrying out searches across communications  
4 networks. *Id.* at 2:50-61. The ‘104 Patent explains that “[i]n various  
5 implementations, a context based search engine in accordance with the present  
6 disclosure” can conduct searches that make “more efficient” use of the  
7 communication network by first associating specific kinds of data objects with both  
8 the information available in the communications network and the network devices  
9 in the communications network, and then by combining the data objects into  
10 collective data objects. *Id.* at 2:59 – 3:5.

11 78. As the ‘104 Patent further explains, a “server device may include one  
12 or more context based search engines, which may be configured to interact with the  
13 user device over the network to facilitate context based network searches by the  
14 user . . . the context based search engine works with an account database, a context  
15 processing application, a context database, and external databases to provide  
16 information to the user and generate responses . . . the context processing  
17 application may select contextual information, parameters, and characteristics from  
18 the context database to be provided in search results to user. In various  
19 implementations, the context processing application may select appropriate  
20 contexts for network searches requested by user based on, for example, user  
21 identifier, account database, [and] account information.” *Id.* at 4:44-52, 5:4-11  
22 (reference numerals omitted).

23 79. Still further, the ‘104 Patent explains that, based on the arrangement  
24 set forth above, the context based search engine can process a more efficient search  
25 by identifying a chain of contexts and then examining one or more contexts in that  
26 chain in order to obtain a relevant search result. *Id.* at 18:30-33 (disclosing that a  
27 “server device builds or modifies the context chain related to the user . . . the user’s  
28 context chain is an array of contexts that may grow or shrink . . . .”); 18:40-43

1 (“During the processing of a subsequent query the query processing module may  
2 examine each context on the context chain . . . .”); 18:62-63 (“The context based  
3 search engine processes one or more queries using the chorus.”) (reference  
4 numerals omitted).

5 80. For example, “[r]esponses published to a context may be grouped  
6 based on their method of evaluation . . . and evaluated together.” *Id.* at 28:33-39.  
7 The ‘104 Patent recognizes that because “[s]ome evaluation methods are  
8 computationally-intensive,” the disclosed technique is advantageous because  
9 evaluation and processing “may not be performed for all responses from all  
10 Publishers depending on the system and/or context configuration.” *Id.* at 28:42-45.  
11 As explained, “a context may only evaluate computationally-intensive and/or other  
12 responses if the publisher is in a chorus of [the] user (or context chain, depending  
13 on the system and/or context configuration) associated with the query.” *Id.* at  
14 28:49-52 (reference numerals omitted).

15 **The Inventions Claimed in the ‘104 Patent Improved Technology & Were**  
16 **Not Well-Understood, Routine, or Conventional**

17 81. Given the state of the art at the time of the inventions of the ‘104  
18 Patent, including the deficiencies recognized by the inventors with “conventional  
19 searching process[es],” the inventive concepts of the ‘104 Patent cannot be  
20 considered to have been conventional, well-understood, or routine, at the time of  
21 the invention of the ‘104 Patent. *See, e.g., id.* at 1:26-32. The ‘104 Patent discloses,  
22 among other things, an unconventional solution to problems arising in the context  
23 of data searching across communications networks, namely, that such systems did  
24 not “properly interpret or understand the particular information desired by users.”  
25 *See, e.g., id.*

26 82. The ‘104 Patent offered an unconventional, technological solution to  
27 such problems resulting in an approach to conducting searches across  
28 communications networks that makes “more efficient and convenient use of the

1 communication network.” *See, e.g., id.* at 2:50-61. In particular, the ‘104 Patent  
2 provides, among other things, an unconventional technological approach to  
3 conducting searches across data networks that includes associating specific kinds  
4 of data objects with both the information available in the communications network  
5 and the network devices in the communications network, and then by combining  
6 the data objects into collective data objects, *see, e.g., id.* at 2:59-3:5, using “a  
7 context based search engine[], which may be configured to interact with the user  
8 device over the network to facilitate context based network searches by the user . .  
9 . [and] select[ing] contextual information, parameters, and characteristics from the  
10 context database to be provided in search results to user, select[ing] appropriate  
11 contexts for network searches requested by user based on, for example, user  
12 identifier, account database, [and] account information,” *id.* at 4:44-52, 5:4-11  
13 (reference numerals omitted), identifying a chain of contexts, and then examining  
14 one or more contexts in that chain on order to obtain a relevant search result, *id.* at  
15 18:30-33, 18:40-43, 18:62-63.

16 83. Indeed, it was not well-understood, routine, or conventional at the time  
17 of the invention of the ‘104 Patent to (i) receive, from a user device, a search request  
18 that includes information related to the user and/or the user device, (ii) process that  
19 search request by identifying a context chain related to the user and/or the user  
20 device based on the information passed with the search request—where the context  
21 chain includes multiple contexts, with each context being a private context, in  
22 which content is controlled by a publisher, or a public context, in which content is  
23 not controlled by a publisher, and (iii) responding to the search request by (a)  
24 obtaining a search result from at least one context in the context chain, and (b)  
25 providing the search result to the user device. *See id.* at Claims 1, 15, 23. These  
26 are just exemplary reasons why the inventions claimed in the ‘104 Patent were not  
27 well-understood, routine, or conventional at the time of the invention of the ‘104  
28 Patent.





1 No. 13/039,133, which is a continuation of U.S. Patent Application No. 12/043,889,  
2 filed on March 6, 2008, and now U.S. Patent No. 7,958,104, which claims priority  
3 to Provisional Application No. 60/893,831, filed on March 8, 2007.

4 88. Corrino is the owner of all rights, title, and interest in and to the ‘533  
5 Patent, with the full and exclusive right to bring suit to enforce the ‘533 Patent,  
6 including the right to recover for past infringement.

7 89. The ‘533 Patent is valid and enforceable under United States Patent  
8 Laws.

9 90. Corrino incorporates by reference and re-alleges the foregoing  
10 paragraph numbers 76-85 of this Complaint as if fully set forth herein.

11 91. Like the inventions claimed in the ‘104 Patent—the parent to the ‘533  
12 Patent—the inventions claimed in the ‘533 Patent were not well-understood,  
13 routine, or conventional.

14 92. Indeed, it was not well-understood, routine, or conventional, at the  
15 time of the invention of the ‘533 Patent, to receive, from a user device, a search  
16 request that includes information related to the user and/or the user device and then  
17 process that search request by (i) identifying a context chain related to the user  
18 and/or the user device based on the information passed with the search request, and  
19 (ii) examining contexts in the context chain in a last-in-first-out order in which the  
20 most recently added contexts are examined before contexts that were added earlier.  
21 *See Exhibit H at Claims 1, 11, 17.* Further it was not well-understood, routine, or  
22 conventional, at the time of the invention of the ‘533 Patent, to identify a context  
23 chain related to the user and/or the user device based on the information passed  
24 with the search request—where the context chain includes (i) multiple contexts that  
25 are publishing spaces in which interpretation of the search request takes place by  
26 using content published to the publishing spaces by publishers of different  
27 viewpoints, and (ii) at least one context that is independently searchable with  
28 respect to other contexts of the context chain. These are just exemplary reasons

1 why the inventions claimed in the ‘533 Patent were not well-understood, routine,  
2 or conventional at the time of the invention of the ‘533 Patent.

3 **The ‘164 Patent**

4 93. U.S. Patent No. 9,767,164 (“the ‘164 Patent”) is entitled “Context  
5 based data searching,” and was issued on September 19, 2017. A true and correct  
6 copy of the ‘164 Patent is attached as Exhibit I.

7 94. The ‘164 Patent was filed on February 12, 2016 as U.S. Patent  
8 Application No. 15/043,282, which is a continuation of U.S. Patent Application No.  
9 13/039,133, filed on March 2, 2011, and now U.S. Patent No. 9,262,533, which is  
10 a continuation of U.S. Patent Application No. 12/043,889, filed on March 6, 2008,  
11 and now U.S. Patent No. 7,958,104, which claims priority to Provisional  
12 Application No. 60/893,831, filed on March 8, 2007.

13 95. Corrino is the owner of all rights, title, and interest in and to the ‘164  
14 Patent, with the full and exclusive right to bring suit to enforce the ‘164 Patent,  
15 including the right to recover for past infringement.

16 96. The ‘164 Patent is valid and enforceable under United States Patent  
17 Laws.

18 97. Corrino incorporates by reference and re-alleges the foregoing  
19 paragraph numbers 76-85 of this Complaint as if fully set forth herein.

20 98. Like the inventions claimed in the ‘104 and ‘533 Patents—the parents  
21 to the ‘164 Patent—the inventions claimed in the ‘164 Patent were not well-  
22 understood, routine, or conventional.

23 99. Indeed, it was not well-understood, routine, or conventional, at the  
24 time of the invention of the ‘164 Patent, to use first context information associated  
25 with a user to determine a plurality of responsive actions that satisfy a received user  
26 communication, where the responsive actions are determined from (i) second  
27 context information comprising multiple responsive actions distributed in the  
28 multiple contexts and (ii) acceptance criteria for each responsive action distributed

1 in the contexts to determine relevance to the received user communication. *See*  
2 Exhibit I at Claims 1, 5, 9. Further, it was not well-understood, routine, or  
3 conventional, at the time of the invention of the '164 Patent, to use first context  
4 information associated with a user to determine a plurality of responsive actions in  
5 a way that includes, (i) retrieving first context information associated with the user  
6 prior to processing user communications from the user, (ii) processing the first  
7 context information, which includes user-selected information to assist with  
8 satisfying the user communications from the user relative to the second context  
9 information, to identify a subset of the second context information, (iii) initiating a  
10 determination of the responsive actions that satisfy the user communication, and  
11 (iv) evaluating the respective acceptance criteria, from the identified subset, relative  
12 to the user communication to determine whether the respective responsive action  
13 satisfies the user communication. *Id.* Further yet, it was not well-understood,  
14 routine, or conventional, at the time of the invention of the '164 Patent, to (i) apply  
15 a ranking rule to the plurality of responsive actions that satisfy the user  
16 communication, and (ii) executing at least one of the responsive actions that satisfy  
17 the user communication, where such responsive actions include at least one of (a)  
18 displaying response text, (b) modifying the first context information, (c) creating  
19 an object on a whiteboard space, (d) executing an operation, (e) running a program,  
20 and (f) interacting with one or more systems, and where such ranking rule includes  
21 at least one of (a) a most-preferred rule, (b) a most-personal rule, (c) a most-popular  
22 rule, and (d) a highest-context-count rule. *Id.* These are just exemplary reasons  
23 why the inventions claimed in the '164 Patent were not well-understood, routine,  
24 or conventional at the time of the invention of the '164 Patent.

25 **COUNT I: INFRINGEMENT OF U.S. PATENT NO. 6,353,398**

26 100. Corrino incorporates by reference and re-alleges all the foregoing  
27 paragraphs of this Complaint as if fully set forth herein.

28 101. Defendant Facebook has infringed and is infringing, either literally or

1 under the doctrine of equivalents, the '398 Patent in violation of 35 U.S.C. § 271 *et*  
2 *seq.*, directly and/or indirectly, by making, using, offering for sale, or selling in the  
3 United States, and/or importing into the United States without authority or license,  
4 products and services that direct location-based information to location-specific  
5 users, including the Facebook [www.facebook.com](http://www.facebook.com) website and mobile application,  
6 (hereinafter "the Accused Products") that infringe at least one or more claims of the  
7 '398 Patent.

8 102. As just one non-limiting example, set forth below (with claim  
9 language in bold and italics) is a description of infringement of exemplary claim 1  
10 of the '398 Patent in connection with the Accused Products. This description is  
11 based on publicly available information. Corrino reserves the right to modify this  
12 description, including, for example, on the basis of information about the Accused  
13 Products that it obtains during discovery.

14 ***1(a): A system for directing region-specific information; comprising—***  
15 Facebook is a social networking platform that provides services by which  
16 certain Facebook users (*e.g.*, Facebook advertisers) can target other  
17 Facebook users such that those users' communications devices receive the  
18 advertisers' advertisements when certain predefined conditions are met. An  
19 example of such a service is Facebook's Location Targeting service.  
20 Facebook at least makes and uses a system in accordance with claim 1 to  
21 facilitate providing the Location Targeting service for one or more Facebook  
22 advertisers. Indeed, as explained by Facebook, "[l]ocation targeting helps  
23 you find people where you do business, helping you create ads that are  
24 relevant to people based on their location." [https://www.facebook.com/  
25 business/a/location-targeting](https://www.facebook.com/business/a/location-targeting). Facebook further explains that "[y]ou can  
26 already choose from areas near you, including country, state or ZIP code, but  
27 we now have expanded features that will give you even more ways to reach  
28 people in specific areas." *Id.*

1           ***I(b): a system for locating and transmitting information to location-***  
2           ***specific users; and***—Facebook at least makes and uses a system (*e.g.*, one or  
3           more servers) to facilitate providing its Location Targeting service that  
4           comprises a system for locating and transmitting information to location-  
5           specific users.

6           For instance, on information and belief, when a Facebook user’s  
7           wireless communications device has Facebook’s location services enabled,  
8           one or more servers comprise one or more processors configured to monitor  
9           (*i.e.*, locate) the geographic position of the wireless communications device  
10          and transmit information (*e.g.*, advertisements) to the user’s wireless  
11          communications device to facilitate Facebook’s Location Targeting service.  
12          *See, e.g.*, [https://www.facebook.com/about/basics/manage-your-privacy/](https://www.facebook.com/about/basics/manage-your-privacy/location#1)  
13          location#1 (“Location History is a timeline of specific places you have been,  
14          organized into days. You can turn it on or off in your location settings or  
15          delete it at any time within the Facebook app.”). In this respect, the one or  
16          more servers are configured to receive geographic position data for the  
17          wireless communications devices of Facebook users that have not opted out  
18          of Facebook’s location services. *See, e.g.*, [https://www.facebook.com/about](https://www.facebook.com/about/basics/manage-your-privacy/location#1)  
19          /basics/manage-your-privacy/location#1 (“Connection information like your  
20          IP address or Wi-Fi connection and specific location information like your  
21          device’s GPS signal help us understand where you are. This information can  
22          be used to help you find events nearby and show you local ads and news  
23          stories. . . . You can control whether your device shares precise location  
24          information with Facebook Company Products via Location Services, a  
25          setting on your mobile device. We may still understand your location using  
26          things like check-ins, events, and information about your internet  
27          connection.”); [https://www.facebook.com/ads/about/?entry\\_product=ad\\_](https://www.facebook.com/ads/about/?entry_product=ad_preferences)  
28          preferences (“We use location data to show you ads from advertisers trying

1 to reach people in or near a specific place. We get this information from  
2 sources such as: [1] Where you connect to the internet [and 2] Where you  
3 use your phone[.]”).

4 Indeed, Facebook explains that “[t]he choices for audiences within a  
5 location are: [1] (Default) Everyone in this location. People whose current  
6 city on their Facebook profile is that location, as well as anyone determined  
7 to be in that location via mobile device. [2] People who live in this location.  
8 People whose current city from their Facebook profile is within that location.  
9 This is also validated by IP address and their Facebook friends’ stated  
10 locations. [3] Recently in this location. People whose most recent location is  
11 the selected area, as determined only via mobile device. This includes people  
12 who live there or who may be traveling there. [4] People traveling in this  
13 location. People whose most recent location is the selected area, as  
14 determined via mobile device, and are greater than 100 miles from their  
15 stated home location from their Facebook profiles.” <https://www.facebook.com/business/a/location-targeting>.

16  
17 ***1(c): a directed information system for linking information related to the***  
18 ***location specific users, the directed information system having access to a***  
19 ***regionally defined data base for directing region-specific information to***  
20 ***location-specific users, and employing push technology to push***  
21 ***information to the location-specific users.***— Facebook at least makes and  
22 uses a system (e.g., one or more servers) to facilitate providing its Location  
23 Targeting service that comprises a directed information system for linking  
24 information related to the location specific users, the directed information  
25 system having access to a regionally defined data base for directing region-  
26 specific information to location-specific users, and employing push  
27 technology to push information to the location-specific users.

28 For instance, the one or more servers that are configured to facilitate

1 providing Facebook’s Location Targeting services enable a Facebook  
2 advertiser’s information (*e.g.*, an advertisement) to be provided to a  
3 particular “audience” (*i.e.*, wireless communications devices of particular  
4 Facebook users). Facebook allows a Facebook advertiser to define the  
5 particular “audience” based on a variety of factors (*e.g.*, geographic regions),  
6 and by doing so, associates the advertiser (and its information) with the  
7 factors that define its particular audience. [https://www.facebook.com/  
8 business/products/ads/ad-targeting](https://www.facebook.com/business/products/ads/ad-targeting) (“Whether you’re a flower shop that  
9 wants more local customers or an online electronics retailer looking for  
10 people interested in your products, our Core Audiences targeting options—  
11 the targeting features built into Ads Manager—allow you to reach people  
12 based on their demographics, location, interests and behaviors.”). In this  
13 respect, the one or more servers maintain and have access to a database of  
14 Facebook advertisers and their respective associations (*e.g.*, geographic-  
15 region associations) that facilitates directing region-specific information  
16 (*e.g.*, advertisements) to certain Facebook users’ wireless communications  
17 devices.

18 An example of a factor by which a Facebook advertiser can define its  
19 “audience” is one or more geographic regions. [https://www.facebook.com/  
20 business/products/ads/ad-targeting](https://www.facebook.com/business/products/ads/ad-targeting) (“Reach people in areas where you want  
21 to do business. You can even create a radius around a store to help create  
22 more walk-ins.”). A Facebook advertiser (and its information) can be  
23 associated with one or more geographic regions in a variety of manners.

24 As one possibility, any Facebook advertiser that utilizes Facebook’s  
25 “radius targeting” feature is associated with at least one geographic region  
26 and defines a corresponding distance around that at least one geographic  
27 region. As explained by Facebook, “[l]ocation targeting lets you select your  
28 audience within a custom radius from the following locations: [1] Country

1 [2] State or region [3] City [4] DMA®\* [(Designated Market Area) regions  
 2 are the geographic areas in the United States in which local television  
 3 viewing is measured by Nielsen.] [5] Zip or post code[.]” [https://](https://www.facebook.com/business/a/location-targeting)  
 4 [www.facebook.com/business/a/location-targeting](https://www.facebook.com/business/a/location-targeting).

5 Facebook provides an example illustration in which a Facebook  
 6 advertiser becomes associated with at least two geographic regions (*e.g.*, San  
 7 Francisco and Berkeley, California) and in which the advertiser defines a  
 8 corresponding distance around each region (*e.g.*, 50-mile radius around San  
 9 Francisco and 25-mile radius around Berkeley):

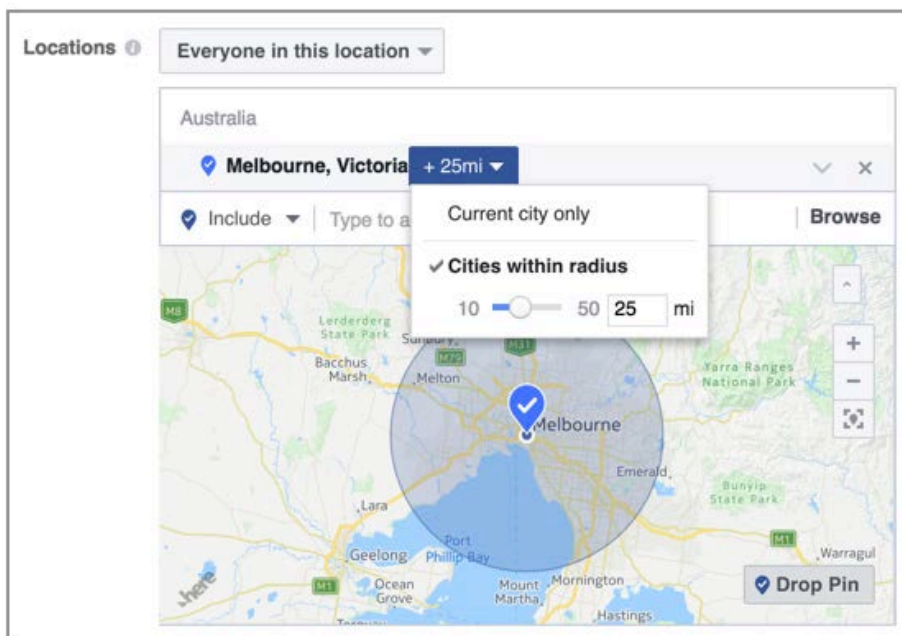
The screenshot displays the Facebook Business location targeting interface. The 'Locations' section is the primary focus, showing a list of selected locations with their respective radii. A dropdown menu is open for the '10 mi' entry, allowing the user to select a different radius (10 miles, 25 miles, 50 miles, or Custom). Other targeting options visible include 'Audiences' (Choose a Custom Audience), 'Age' (18-65+), 'Gender' (All, Men, Women), and 'Languages' (Enter a language...).

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 22 <https://www.facebook.com/business/a/location-targeting>.

23 Facebook provides another example illustration in which a Facebook  
 24 advertiser becomes associated with a geographic region (*e.g.*, Melbourne,  
 25 Victoria in Australia) and in which the advertiser defines a corresponding  
 26 distance around that region (*e.g.*, 25-mile radius around the city), and  
 27 explains “[t]he radius itself appears on the targeting map. It can be adjusted  
 28 by clicking the button next to each location and using the slider and field that



1 appear.”



13 <https://www.facebook.com/business/help/202297959811696>.

14 As another possibility, any Facebook advertiser that utilizes  
15 Facebook’s “business locations targeting” feature is associated with at least  
16 one geographic region (*e.g.*, the physical space occupied by the business’  
17 building(s)) and defines a corresponding distance around that at least one  
18 geographic region. *See, e.g.*, [https://www.facebook.com/business/help/](https://www.facebook.com/business/help/202297959811696)  
19 [202297959811696](https://www.facebook.com/business/help/202297959811696) (“Business Locations targeting allows you to reach  
20 people near your business’s physical locations.”); [https://www.](https://www.facebook.com/business/products/ads/ad-targeting_)  
21 [facebook.com/business/products/ads/ad-targeting\\_](https://www.facebook.com/business/products/ads/ad-targeting_) (“Reach people in areas  
22 where you want to do business. You can even create a radius around a store  
23 to help create more walk-ins.”).

24 In particular, Facebook generally explains that “[f]irst, you will need  
25 to upload your business locations,” then “[s]elect the Country of your  
26 business location then add specific store locations within the country you’ve  
27 selected,” and lastly, “[c]hoose the radius around each of your business  
28 locations that you want to reach people in.” [https://www.facebook.](https://www.facebook.com/business/help/202297959811696)

1 com/business/help/202297959811696. With respect to this last step,  
2 Facebook further explains that “[y]ou can either select Automatic Radius to  
3 allow us to automatically set a radius around your store locations, or choose  
4 Fixed Radius to reach people within a fixed distance to one of your  
5 locations.” *Id.*

6 In any case, to facilitate providing Facebook’s Location Targeting  
7 services, the one or more servers are configured to employ push technology  
8 to push information (*e.g.*, advertisements) to Facebook users’ wireless  
9 communications devices that the one or more servers have matched (*i.e.*,  
10 linked) to the information of one or more Facebook Advertisers. *See, e.g.*,  
11 [https://www.facebook.com/ads/about/?entry\\_product=ad\\_preferences](https://www.facebook.com/ads/about/?entry_product=ad_preferences) (“We  
12 use location data to show you ads from advertisers trying to reach people in  
13 or near a specific place. We get this information from sources such as: [1]  
14 Where you connect to the internet [and 2] Where you use your phone[.]”); *Id.*  
15 (“Our ad system prioritizes what ad to show you based on what advertisers  
16 tell us their desired audience is, and we then match it to people who might be  
17 interested in that ad. This means we can show you relevant and useful ads . .  
18 . .”).

19 As one example, when the one or more servers are monitoring the  
20 geographic position of a particular communications device of a Facebook  
21 user, the one or more servers will link and then push to the particular  
22 communications device a Facebook advertiser’s advertisement that is  
23 associated with the particular geographic region in which the particular  
24 communications device is located. *See, e.g.*, [https://www.facebook.com/  
25 business/a/location-targeting](https://www.facebook.com/business/a/location-targeting) (“Location targeting lets you select your  
26 audience within a custom radius from the following locations: [1] Country  
27 [2] State or region [3] City [4] DMA®\* [(Designated Market Area) regions  
28 are the geographic areas in the United States in which local television

1 viewing is measured by Nielsen.] [5] Zip or post code[.]”);  
2 [https://www.facebook.com/ads/about/?entry\\_product=ad\\_preferences](https://www.facebook.com/ads/about/?entry_product=ad_preferences) (“We  
3 use location data to show you ads from advertisers trying to reach people in  
4 or near a specific place. We get this information from sources such as: [1]  
5 Where you connect to the internet [and 2] Where you use your phone[.]”).

6 103. Additionally, Defendant Facebook has been, and currently is, an active  
7 inducer of infringement of the ‘398 Patent under 35 U.S.C. § 271(b) and  
8 contributory infringer of the ‘398 Patent under 35 U.S.C. § 271(c).

9 104. Facebook knew of the ‘398 Patent, or at least should have known of  
10 the ‘398 Patent, but was willfully blind to its existence. On information and belief,  
11 Facebook has had actual knowledge of the ‘398 Patent since at least as early as the  
12 filing and/or service of this Complaint.

13 105. Facebook has provided the Accused Products to its customers and, on  
14 information and belief, instructions to use the Accused Products in an infringing  
15 manner while being on notice of (or willfully blind to) the ‘398 Patent and  
16 Facebook’s infringement. Therefore, on information and belief, Facebook knew or  
17 should have known of the ‘398 Patent and of its own infringing acts, or deliberately  
18 took steps to avoid learning of those facts.

19 106. Facebook knowingly and intentionally encourages and aids at least its  
20 end-user customers to directly infringe the ‘398 Patent.

21 107. On information and belief, Facebook provides the Accused Products  
22 to customers through various third-party application stores (*e.g.*, the Apple iTunes  
23 App Store) and instructions to end-user customers so that such customers will use  
24 the Accused Products in an infringing manner.

25 108. Facebook’s end-user customers directly infringe at least one or more  
26 claims of the ‘398 Patent by using the Accused Products in their intended manner  
27 to infringe. Facebook induces such infringement by providing the Accused  
28 Products and instructions to enable and facilitate infringement, knowing of, or

1 being willfully blind to the existence of, the '398 Patent. On information and belief,  
2 Facebook specifically intends that its actions will result in infringement of one or  
3 more claims of the '398 Patent, or subjectively believe that their actions will result  
4 in infringement of the '398 Patent, but took deliberate actions to avoid learning of  
5 those facts, as set forth above.

6 109. Additionally, Facebook contributorily infringes at least one or more  
7 claims of the '398 Patent by providing the Accused Products and/or software  
8 components thereof, that embody a material part of the claimed inventions of the  
9 '398 Patent, that are known by Facebook to be specially made or adapted for use in  
10 an infringing manner, and are not staple articles with substantial non-infringing  
11 uses. The Accused Products are specially designed to infringe at least one or more  
12 claims of the '398 Patent, and their accused components have no substantial non-  
13 infringing uses. In particular, on information and belief, the software modules and  
14 code that implement and perform the infringing functionalities identified above are  
15 specially made and adapted to carry out said functionality and do not have any  
16 substantial non-infringing uses.

17 110. Facebook's infringement of the '398 Patent was and continues to be  
18 willful and deliberate, entitling Corrino to enhanced damages.

19 111. Additional allegations regarding Facebook's knowledge of the '398  
20 Patent and willful infringement will likely have evidentiary support after a  
21 reasonable opportunity for discovery.

22 112. Facebook's infringement of the '398 Patent is exceptional and entitles  
23 Corrino to attorneys' fees and costs incurred in prosecuting this action under 35  
24 U.S.C. § 285.

25 113. Corrino is in compliance with any applicable marking and/or notice  
26 provisions of 35 U.S.C. § 287 with respect to the '398 Patent.

27 114. Corrino is entitled to recover from Facebook all damages that Corrino  
28 has sustained as a result of Facebook's infringement of the '398 Patent, including,

1 without limitation, a reasonable royalty.

2 **COUNT II: INFRINGEMENT OF U.S. PATENT NO. 7,843,331**

3 115. Corrino incorporates by reference and re-alleges all the foregoing  
4 paragraphs of this Complaint as if fully set forth herein.

5 116. Defendant Facebook has infringed and is infringing, either literally or  
6 under the doctrine of equivalents, the '331 Patent in violation of 35 U.S.C. § 271 *et*  
7 *seq.*, directly and/or indirectly, by making, using, offering for sale, or selling in the  
8 United States, and/or importing into the United States without authority or license,  
9 products and services that direct location-based information to location-specific  
10 users, including the Facebook [www.facebook.com](http://www.facebook.com) website and mobile application,  
11 that infringe at least one or more claims of the '331 Patent.

12 117. As just one non-limiting example, set forth below is a description of  
13 infringement of exemplary claim 1 of the '331 Patent in connection with the  
14 Accused Products. This description is based on publicly available information.  
15 Corrino reserves the right to modify this description, including, for example, on the  
16 basis of information about the Accused Products that it obtains during discovery.

17 ***1(a): A method comprising***—As noted above, Facebook is a social  
18 networking platform that provides services by which certain Facebook users  
19 (*e.g.*, Facebook advertisers) can target other Facebook users such that those  
20 users' communications devices receive the advertisers' advertisements when  
21 certain predefined conditions are met. An example of such a service is  
22 Facebook's Location Targeting service. Facebook's servers practice the  
23 method of claim 1 when providing the Location Targeting service for one or  
24 more Facebook advertisers. Indeed, as explained by Facebook, "[l]ocation  
25 targeting helps you find people where you do business, helping you create  
26 ads that are relevant to people based on their location."  
27 <https://www.facebook.com/business/a/location-targeting>. Facebook further  
28 explains that "[y]ou can already choose from areas near you, including

1 country, state or ZIP code, but we now have expanded features that will give  
2 you even more ways to reach people in specific areas.” *Id.*

3 ***1(b): maintaining an index of information sources, wherein each***  
4 ***information source is associated with at least one geographic region;***  
5 ***and***—Facebook’s servers maintain an index of information sources, wherein  
6 each information source is associated with at least one geographic region.

7 For instance, Facebook’s servers are configured to facilitate providing  
8 Facebook’s Location Targeting services that enable a Facebook advertiser’s  
9 data (*e.g.*, an advertisement) to be provided to a particular “audience” (*i.e.*,  
10 communications devices of particular Facebook users). Facebook allows a  
11 Facebook advertiser to define the particular “audience” based on a variety of  
12 factors (*e.g.*, geographic regions), and by doing so, associates the advertiser  
13 with the factors that define its particular audience. [https://www.face](https://www.facebook.com/business/products/ads/ad-targeting)  
14 [book.com/business/products/ads/ad-targeting](https://www.facebook.com/business/products/ads/ad-targeting) (“Whether you’re a flower  
15 shop that wants more local customers or an online electronics retailer looking  
16 for people interested in your products, our Core Audiences targeting  
17 options—the targeting features built into Ads Manager—allow you to reach  
18 people based on their demographics, location, interests and behaviors.”). In  
19 this respect, Facebook’s servers maintain an index of Facebook advertisers  
20 and their respective associations.

21 An example of a factor by which a Facebook advertiser can define its  
22 “audience” is one or more geographic regions. [https://www.facebook.com/](https://www.facebook.com/business/products/ads/ad-targeting)  
23 [business/products/ads/ad-targeting](https://www.facebook.com/business/products/ads/ad-targeting) (“Reach people in areas where you want  
24 to do business. You can even create a radius around a store to help create  
25 more walk-ins.”). A Facebook advertiser can be associated with one or more  
26 geographic regions in a variety of manners.

27 As one possibility, any Facebook advertiser that utilizes Facebook’s  
28 “radius targeting” feature is associated with at least one geographic region

1 and defines a corresponding distance around that at least one geographic  
 2 region. As explained by Facebook, “[l]ocation targeting lets you select your  
 3 audience within a custom radius from the following locations: [1] Country  
 4 [2] State or region [3] City [4] DMA®\* [(Designated Market Area) regions  
 5 are the geographic areas in the United States in which local television  
 6 viewing is measured by Nielsen.] [5] Zip or post code[.]” <https://www.facebook.com/business/a/location-targeting>.

8 Facebook provides an example illustration in which a Facebook  
 9 advertiser becomes associated with at least two geographic regions (*e.g.*, San  
 10 Francisco and Berkeley, California) and in which the advertiser defines a  
 11 corresponding distance around each region (*e.g.*, 50-mile radius around San  
 12 Francisco and 25-mile radius around Berkeley):

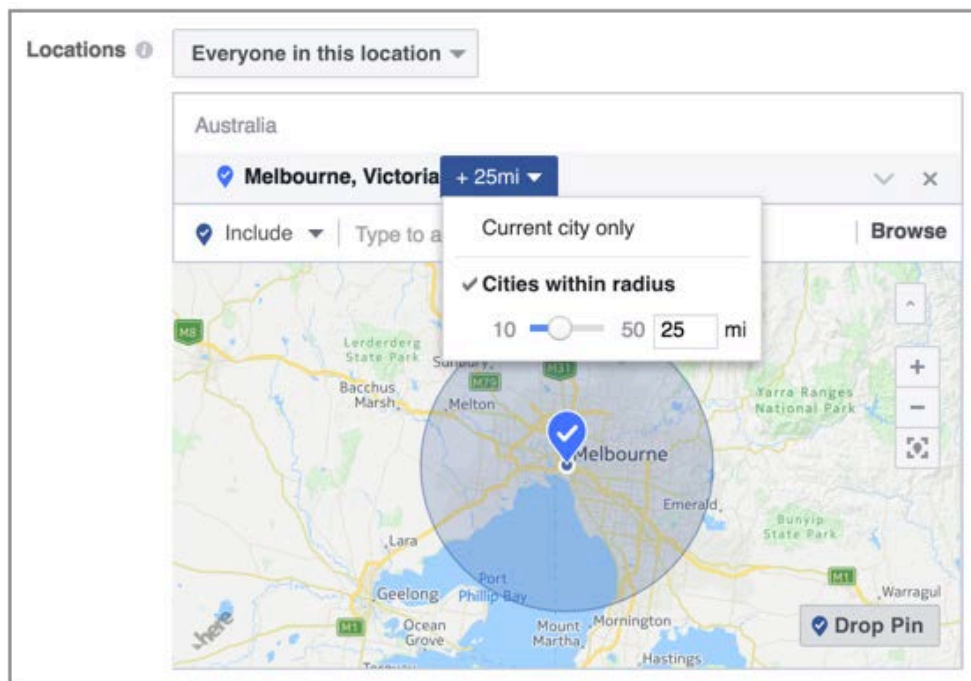
13  
 14 Audiences    
 15 Create New Custom Audience...  
 16 Locations   
 17 San Francisco + 50 mi  
 18 Berkeley + 25 mi  
 19 1601 Willow Rd, Menlo Park, CA, USA + 10 mi  
 20 Add a country, state/province, city, ZIP or address  
 21 Everyone in this location  
 22 Age  -   
 23 Gender  All  Men  Women  
 24 Languages   
 25

The screenshot shows a dropdown menu for the radius selection, with options: 10 miles, 25 miles, 50 miles, and Custom. The 25 miles option is currently selected.

25 <https://www.facebook.com/business/a/location-targeting>.

26 Facebook provides another example illustration in which a Facebook  
 27 advertiser becomes associated with a geographic region (*e.g.*, Melbourne,  
 28 Victoria in Australia) and in which the advertiser defines a corresponding

1 distance around that region (e.g., 25-mile radius around the city), and  
 2 explains “[t]he radius itself appears on the targeting map. It can be adjusted  
 3 by clicking the button next to each location and using the slider and field that  
 4 appear.”



17 <https://www.facebook.com/business/help/202297959811696>.

18 As another possibility, any Facebook advertiser that utilizes  
 19 Facebook’s “business locations targeting” feature is associated with at least  
 20 one geographic region (e.g., the physical space occupied by the business’  
 21 building(s)) and defines a corresponding distance around that at least one  
 22 geographic region. See, e.g., <https://www.facebook.com/business/help/202297959811696> (“Business Locations targeting allows you to reach  
 23 people near your business’s physical locations.”); <https://www.facebook.com/business/products/ads/ad-targeting> (“Reach people in areas where  
 24 you want to do business. You can even create a radius around a store to help  
 25 create more walk-ins.”).

26 In particular, Facebook generally explains that “[f]irst, you will need  
 27  
 28



1 to upload your business locations,” then “[s]elect the Country of your  
2 business location then add specific store locations within the country you’ve  
3 selected,” and lastly, “[c]hoose the radius around each of your business  
4 locations that you want to reach people in.” [https://www.facebook.com/  
5 business/help/202297959811696](https://www.facebook.com/business/help/202297959811696). With respect to this last step, Facebook  
6 further explains that “[y]ou can either select Automatic Radius to allow us to  
7 automatically set a radius around your store locations, or choose Fixed  
8 Radius to reach people within a fixed distance to one of your locations.” *Id.*  
9 ***1(c): initiating the transmission of data from at least one of the information***  
10 ***sources to a communications device if the communications device’s***  
11 ***indicated geographic position changes from a first position that is greater***  
12 ***than a predefined distance from a geographic region associated with the at***  
13 ***least one information source to a second position that is within a***  
14 ***predefined distance from a geographic region associated with the at least***  
15 ***one information source.***—Facebook’s servers initiate the transmission of  
16 data from at least one of the information sources to a communications device  
17 if the communications device’s indicated geographic position changes from  
18 a first position that is greater than a predefined distance from a geographic  
19 region associated with the at least one information source to a second position  
20 that is within a predefined distance from a geographic region associated with  
21 the at least one information source.

22 For example, Facebook’s servers initiate the transmission of an  
23 advertisement of an advertiser that utilizes Facebook’s Location Targeting  
24 service to a Facebook user’s communication device if the communication  
25 device’s indicated geographic position changes from being outside of the  
26 predefined radius around one of the advertiser’s associated geographic  
27 regions to being inside of the predefined radius.

28 For instance, on information and belief, when a Facebook user’s

1 communications device has Facebook’s location services enabled,  
2 Facebook’s servers monitor the geographic position of the communications  
3 device to facilitate Facebook’s Location Targeting service. *See, e.g.*,  
4 <https://www.facebook.com/about/basics/manage-your-privacy/location#1>  
5 (“Location History is a timeline of specific places you have been, organized  
6 into days. You can turn it on or off in your location settings or delete it at any  
7 time within the Facebook app.”). In this respect, Facebook’s servers are  
8 configured to receive geographic position data for the communication  
9 devices of Facebook users that have not opted out of allowing Facebook to  
10 use location services. *See, e.g.*, [https://www.facebook.com/about/basics/](https://www.facebook.com/about/basics/manage-your-privacy/location#1)  
11 [manage-your-privacy/location#1](https://www.facebook.com/about/basics/manage-your-privacy/location#1) (“Connection information like your IP  
12 address or Wi-Fi connection and specific location information like your  
13 device’s GPS signal help us understand where you are. This information can  
14 be used to help you find events nearby and show you local ads and news  
15 stories. . . . You can control whether your device shares precise location  
16 information with Facebook Company Products via Location Services, a  
17 setting on your mobile device. We may still understand your location using  
18 things like check-ins, events, and information about your internet  
19 connection.”); [https://www.facebook.com/ads/about/?entry\\_product=ad\\_](https://www.facebook.com/ads/about/?entry_product=ad_preferences)  
20 [preferences](https://www.facebook.com/ads/about/?entry_product=ad_preferences) (“We use location data to show you ads from advertisers trying  
21 to reach people in or near a specific place. We get this information from  
22 sources such as: [1] Where you connect to the internet [and 2] Where you  
23 use your phone[.]”).

24 Indeed, Facebook explains that “[t]he choices for audiences within a  
25 location are: [1] (Default) Everyone in this location. People whose current  
26 city on their Facebook profile is that location, as well as anyone determined  
27 to be in that location via mobile device. [2] People who live in this location.  
28 People whose current city from their Facebook profile is within that location.

1 This is also validated by IP address and their Facebook friends' stated  
2 locations. [3] Recently in this location. People whose most recent location is  
3 the selected area, as determined only via mobile device. This includes people  
4 who live there or who may be traveling there. [4] People traveling in this  
5 location. People whose most recent location is the selected area, as  
6 determined via mobile device, and are greater than 100 miles from their  
7 stated home location from their Facebook profiles." [https://www.face](https://www.facebook.com/business/a/location-targeting)  
8 [book.com/business/a/location-targeting](https://www.facebook.com/business/a/location-targeting).

9 Thus, as one example, when Facebook's servers are monitoring the  
10 geographic position of a particular communications device of a Facebook  
11 user, the servers will initiate the transmission of an advertisement for a  
12 Facebook advertiser to the particular communications device if the particular  
13 communication device's geographic position changes from being outside of  
14 the predefined radius around one of the advertiser's associated geographic  
15 regions to being inside of the predefined radius. *See, e.g.*, [https://www.face](https://www.facebook.com/business/a/location-targeting)  
16 [book.com/business/a/location-targeting](https://www.facebook.com/business/a/location-targeting) ("Location targeting lets you select  
17 your audience within a custom radius from the following locations: [1]  
18 Country [2] State or region [3] City [4] DMA®\* [(Designated Market Area)  
19 regions are the geographic areas in the United States in which local television  
20 viewing is measured by Nielsen.] [5] Zip or post code[.]"); [https://www.](https://www.facebook.com/ads/about/?entry_product=ad_preferences)  
21 [facebook.com/ads/about/?entry\\_product=ad\\_preferences](https://www.facebook.com/ads/about/?entry_product=ad_preferences) ("Our ad system  
22 prioritizes what ad to show you based on what advertisers tell us their desired  
23 audience is, and we then match it to people who might be interested in that  
24 ad. This means we can show you relevant . . .").

25 118. Additionally, Defendant Facebook has been, and currently is, an active  
26 inducer of infringement of the '331 Patent under 35 U.S.C. § 271(b) and  
27 contributory infringer of the '331 Patent under 35 U.S.C. § 271(c).

28 119. Facebook knew of the '331 Patent, or at least should have known of

1 the '331 Patent, but was willfully blind to its existence. On information and belief,  
2 Facebook has had actual knowledge of the '331 Patent since at least as early as the  
3 filing and/or service of this Complaint.

4 120. Facebook has provided the Accused Products to its customers and, on  
5 information and belief, instructions to use the Accused Products in an infringing  
6 manner while being on notice of (or willfully blind to) the '331 Patent and  
7 Facebook's infringement. Therefore, on information and belief, Facebook knew or  
8 should have known of the '331 Patent and of its own infringing acts, or deliberately  
9 took steps to avoid learning of those facts.

10 121. Facebook knowingly and intentionally encourages and aids at least its  
11 end-user customers to directly infringe the '331 Patent.

12 122. On information and belief, Facebook provides the Accused Products  
13 to customers through various third-party application stores (*e.g.*, the Apple iTunes  
14 App Store) and instructions to end-user customers so that such customers will use  
15 the Accused Products in an infringing manner.

16 123. Facebook's end-user customers directly infringe at least one or more  
17 claims of the '331 Patent by using the Accused Products in their intended manner  
18 to infringe. Facebook induces such infringement by providing the Accused  
19 Products and instructions to enable and facilitate infringement, knowing of, or  
20 being willfully blind to the existence of, the '331 Patent. On information and belief,  
21 Facebook specifically intends that its actions will result in infringement of at least  
22 one or more claims of the '331 Patent, or subjectively believe that their actions will  
23 result in infringement of the '331 Patent, but took deliberate actions to avoid  
24 learning of those facts, as set forth above.

25 124. Additionally, Facebook contributorily infringes at least one or more  
26 claims of the '331 Patent by providing the Accused Products and/or software  
27 components thereof, that embody a material part of the claimed inventions of the  
28 '331 Patent, that are known by Facebook to be specially made or adapted for use in

1 an infringing manner, and are not staple articles with substantial non-infringing  
2 uses. The Accused Products are specially designed to infringe at least one or more  
3 claims of the '331 Patent, and their accused components have no substantial non-  
4 infringing uses. In particular, on information and belief, the software modules and  
5 code that implement and perform the infringing functionalities identified above are  
6 specially made and adapted to carry out said functionality and do not have any  
7 substantial non-infringing uses.

8 125. Facebook's infringement of the '331 Patent was and continues to be  
9 willful and deliberate, entitling Corrino to enhanced damages.

10 126. Additional allegations regarding Facebook's knowledge of the '331  
11 Patent and willful infringement will likely have evidentiary support after a  
12 reasonable opportunity for discovery.

13 127. Facebook's infringement of the '331 Patent is exceptional and entitles  
14 Corrino to attorneys' fees and costs incurred in prosecuting this action under 35  
15 U.S.C. § 285.

16 128. Corrino is in compliance with any applicable marking and/or notice  
17 provisions of 35 U.S.C. § 287 with respect to the '331 Patent.

18 129. Corrino is entitled to recover from Facebook all damages that Corrino  
19 has sustained as a result of Facebook's infringement of the '331 Patent, including,  
20 without limitation, a reasonable royalty.

21 **COUNT III: INFRINGEMENT OF U.S. PATENT NO. 7,982,599**

22 130. Corrino incorporates by reference and re-alleges all the foregoing  
23 paragraphs of this Complaint as if fully set forth herein.

24 131. Defendant Facebook has infringed and is infringing, either literally or  
25 under the doctrine of equivalents, the '599 Patent in violation of 35 U.S.C. § 271 *et*  
26 *seq.*, directly and/or indirectly, by making, using, offering for sale, or selling in the  
27 United States, and/or importing into the United States without authority or license,  
28 products and services that direct location-based information to location-specific

1 users, including the Facebook [www.facebook.com](http://www.facebook.com) website and mobile application,  
2 that infringe at least one or more claims of the ‘599 Patent.

3 132. As just one non-limiting example, set forth below is a description of  
4 infringement of exemplary claim 10 of the ‘599 Patent in connection with the  
5 Accused Products. This description is based on publicly available information.  
6 Corrino reserves the right to modify this description, including, for example, on the  
7 basis of information about the Accused Products that it obtains during discovery.

8 ***10(a): An apparatus comprising:***—As noted above, Facebook is a social  
9 networking platform that provides services by which certain Facebook users  
10 (*e.g.*, Facebook advertisers) can target other Facebook users such that those  
11 users’ communications devices receive the advertisers’ advertisements when  
12 certain predefined conditions are met. An example of such a service is  
13 Facebook’s Location Targeting service. Facebook at least makes and uses  
14 an apparatus (*e.g.*, a server) configured in accordance with claim 10 to  
15 facilitate providing the Location Targeting service for one or more Facebook  
16 advertisers. Indeed, as explained by Facebook, “[l]ocation targeting helps  
17 you find people where you do business, helping you create ads that are  
18 relevant to people based on their location.” [https://www.facebook.com/  
19 business/a/location-targeting](https://www.facebook.com/business/a/location-targeting). Facebook further explains that “[y]ou can  
20 already choose from areas near you, including country, state or ZIP code, but  
21 we now have expanded features that will give you even more ways to reach  
22 people in specific areas.” *Id.*

23 ***10(b): one or more processors configured to receive geographic position***  
24 ***data associated with a wireless communications device, and***—Facebook at  
25 least makes and uses an apparatus (*e.g.*, a server) to facilitate providing its  
26 Location Targeting service that comprises one or more processors configured  
27 to receive geographic position data associated with a wireless  
28 communications device.

1 For instance, on information and belief, when a Facebook user's  
2 wireless communications device has Facebook's location services enabled, a  
3 server comprises one or more processors configured to monitor the  
4 geographic position of the wireless communications device to facilitate  
5 Facebook's Location Targeting service. *See, e.g.*, <https://www.facebook.com/about/basics/manage-your-privacy/location#1> ("Location History is a  
6 timeline of specific places you have been, organized into days. You can turn  
7 it on or off in your location settings or delete it at any time within the  
8 Facebook app."). In this respect, the server is configured to receive  
9 geographic position data for the wireless communications devices of  
10 Facebook users that have not opted out of allowing Facebook to use location  
11 services. *See, e.g.*, <https://www.facebook.com/about/basics/manage-your-privacy/location#1> ("Connection information like your IP address or Wi-Fi  
12 connection and specific location information like your device's GPS signal  
13 help us understand where you are. This information can be used to help you  
14 find events nearby and show you local ads and news stories. . . . You can  
15 control whether your device shares precise location information with  
16 Facebook Company Products via Location Services, a setting on your mobile  
17 device. We may still understand your location using things like check-ins,  
18 events, and information about your internet connection.");  
19 [https://www.facebook.com/ads/about/?entry\\_product=ad\\_preferences](https://www.facebook.com/ads/about/?entry_product=ad_preferences) ("We  
20 use location data to show you ads from advertisers trying to reach people in  
21 or near a specific place. We get this information from sources such as: [1]  
22 Where you connect to the internet [and 2] Where you use your phone[.]").  
23  
24

25 Indeed, Facebook explains that "[t]he choices for audiences within a  
26 location are: [1] (Default) Everyone in this location. People whose current  
27 city on their Facebook profile is that location, as well as anyone determined  
28 to be in that location via mobile device. [2] People who live in this location.

1 People whose current city from their Facebook profile is within that location.  
2 This is also validated by IP address and their Facebook friends' stated  
3 locations. [3] Recently in this location. People whose most recent location is  
4 the selected area, as determined only via mobile device. This includes people  
5 who live there or who may be traveling there. [4] People traveling in this  
6 location. People whose most recent location is the selected area, as  
7 determined via mobile device, and are greater than 100 miles from their  
8 stated home location from their Facebook profiles.” [https://www.face](https://www.facebook.com/business/a/location-targeting)  
9 [book.com/business/a/location-targeting](https://www.facebook.com/business/a/location-targeting).

10 ***10(c): configured to initiate transmission of digital content to the wireless***  
11 ***communications device in response to determining that the geographic***  
12 ***position of the wireless communications device has changed to be within a***  
13 ***predefined distance of a geographic area associated with the digital content***  
14 ***during a predefined timeframe associated with the digital content.—***

15 Facebook at least makes and uses an apparatus (e.g., a server) to facilitate  
16 providing its Location Targeting service that comprises one or more  
17 processors configured to initiate transmission of digital content to the  
18 wireless communications device in response to determining that the  
19 geographic position of the wireless communications device has changed to  
20 be within a predefined distance of a geographic area associated with the  
21 digital content during a predefined timeframe associated with the digital  
22 content.

23 For instance, a server that is configured to facilitate providing  
24 Facebook's Location Targeting services enables a Facebook advertiser's  
25 digital content (e.g., an advertisement) to be provided to a particular  
26 “audience” (i.e., communications devices of particular Facebook users).  
27 Facebook allows a Facebook advertiser to define the particular “audience”  
28 based on a variety of factors (e.g., geographic areas), and by doing so,



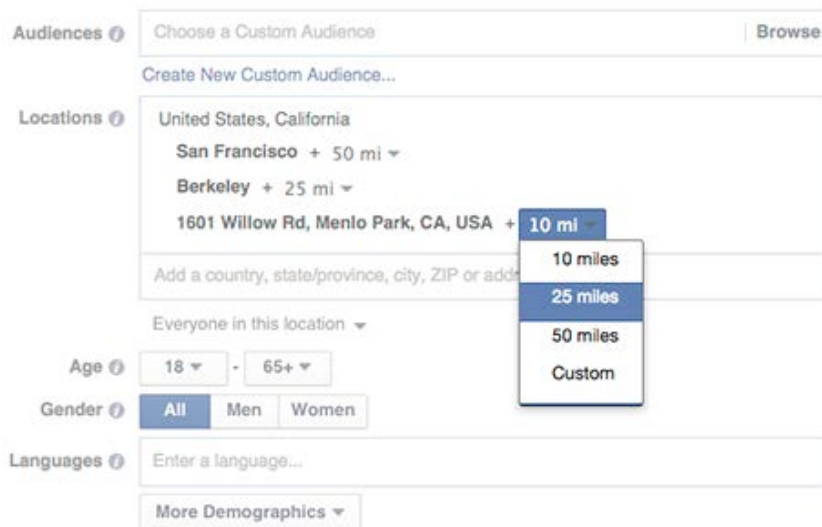
1 associates the advertiser (and its digital content) with the factors that define  
2 its particular audience. <https://www.facebook.com/business/products/ads/ad-targeting> (“Whether you’re a flower shop that  
3 wants more local customers or an online electronics retailer looking for  
4 people interested in your products, our Core Audiences targeting options—  
5 the targeting features built into Ads Manager—allow you to reach people  
6 based on their demographics, location, interests and behaviors.”). In this  
7 respect, the server maintains an index of Facebook advertisers and their  
8 respective associations.  
9

10 An example of a factor by which a Facebook advertiser can define its  
11 “audience” is one or more geographic areas. <https://www.facebook.com/business/products/ads/ad-targeting> (“Reach people in areas where you want  
12 to do business. You can even create a radius around a store to help create  
13 more walk-ins.”). A Facebook advertiser can be associated with one or more  
14 geographic areas in a variety of manners.  
15

16 As one possibility, any Facebook advertiser that utilizes Facebook’s  
17 “radius targeting” feature is associated with at least one geographic area and  
18 defines a corresponding distance around that at least one geographic area. As  
19 explained by Facebook, “[l]ocation targeting lets you select your audience  
20 within a custom radius from the following locations: [1] Country [2] State or  
21 region [3] City [4] DMA®\* [(Designated Market Area) regions are the  
22 geographic areas in the United States in which local television viewing is  
23 measured by Nielsen.] [5] Zip or post code[.]” <https://www.facebook.com/business/a/location-targeting>.  
24

25 Facebook provides an example illustration in which a Facebook  
26 advertiser becomes associated with at least two geographic areas (*e.g.*, San  
27 Francisco and Berkeley, California) and in which the advertiser defines a  
28 corresponding distance around each area (*e.g.*, 50-mile radius around San

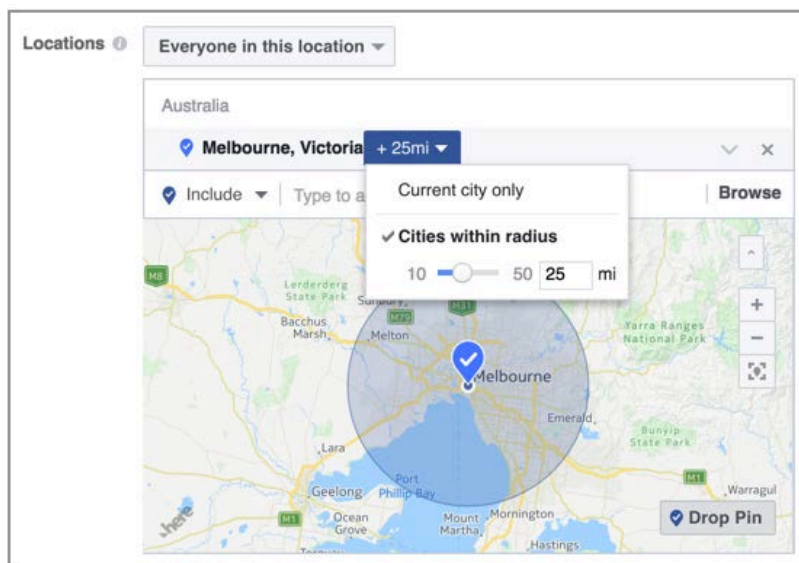
1 Francisco and 25-mile radius around Berkeley):



10

11 <https://www.facebook.com/business/a/location-targeting>.

12 Facebook provides another example illustration in which a Facebook  
 13 advertiser becomes associated with a geographic area (e.g., Melbourne,  
 14 Victoria in Australia) and in which the advertiser defines a corresponding  
 15 distance around that area (e.g., 25-mile radius around the city), and explains  
 16 “[t]he radius itself appears on the targeting map. It can be adjusted by  
 17 clicking the button next to each location and using the slider and field that  
 18 appear.”



<https://www.facebook.com/business/help/202297959811696>.

1 As another possibility, any Facebook advertiser that utilizes  
2 Facebook’s “business locations targeting” feature is associated with at least  
3 one geographic area (*e.g.*, the physical space occupied by the business’  
4 building(s)) and defines a corresponding distance around that at least one  
5 geographic area. *See, e.g.*, [https://www.facebook.com/business/help/  
6 202297959811696](https://www.facebook.com/business/help/202297959811696) (“Business Locations targeting allows you to reach  
7 people near your business’s physical locations.”); [https://www.face  
8 book.com/business/products/ads/ad-targeting](https://www.facebook.com/business/products/ads/ad-targeting) (“Reach people in areas where  
9 you want to do business. You can even create a radius around a store to help  
10 create more walk-ins.”).

11 In particular, Facebook generally explains that “[f]irst, you will need  
12 to upload your business locations,” then “[s]elect the Country of your  
13 business location then add specific store locations within the country you’ve  
14 selected,” and lastly, “[c]hoose the radius around each of your business  
15 locations that you want to reach people in.” [https://www.facebook.com/  
16 business/help/202297959811696](https://www.facebook.com/business/help/202297959811696). With respect to this last step, Facebook  
17 further explains that “[y]ou can either select Automatic Radius to allow us to  
18 automatically set a radius around your store locations, or choose Fixed  
19 Radius to reach people within a fixed distance to one of your locations.” *Id.*

20 In addition to targeting a particular “audience,” Facebook allows a  
21 Facebook advertiser to define a particular timeframe during which the  
22 advertiser’s digital content is to be provided to the particular “audience.” For  
23 instance, a Facebook advertiser can select particular days and times during  
24 which the server is to transmit advertisements to the advertiser’s particular  
25 “audience,” assuming all other conditions are satisfied. *See, e.g.*,  
26 <https://www.facebook.com/business/help/202297959811696> (“You might  
27 want to advertise time sensitive sales, for example, to people recently in the  
28 location you choose.”); <https://www.facebook.com/business/help/1037425>

1 549606837 (“You can control both what dates and what times we show your  
2 ads. . . . To set start and end dates/times, select Set a start and end date in the  
3 ‘Schedule’ section of ad set creation and choose the start and end  
4 dates/times.”).

5 Thus, as one example, the server that facilitates providing Facebook’s  
6 Location Targeting service is configured to initiate transmission of a  
7 Facebook advertiser’s digital content to the wireless communications device  
8 of one of the advertiser’s “audience” members in response to determining  
9 that the geographic position of the wireless communications device has  
10 changed to be within a predefined distance (*e.g.*, “custom radius”) of a  
11 geographic area associated with the digital content during a predefined  
12 timeframe associated with the digital content, in accordance with the  
13 Facebook Location Targeting service.

14 133. Additionally, Defendant Facebook has been, and currently is, an active  
15 inducer of infringement of the ‘599 Patent under 35 U.S.C. § 271(b) and  
16 contributory infringer of the ‘599 Patent under 35 U.S.C. § 271(c).

17 134. Facebook knew of the ‘599 Patent, or at least should have known of  
18 the ‘599 Patent, but was willfully blind to its existence. On information and belief,  
19 Facebook has had actual knowledge of the ‘599 Patent since at least as early as the  
20 filing and/or service of this Complaint.

21 135. Facebook has provided the Accused Products to its customers and, on  
22 information and belief, instructions to use the Accused Products in an infringing  
23 manner while being on notice of (or willfully blind to) the ‘599 Patent and  
24 Facebook’s infringement. Therefore, on information and belief, Facebook knew or  
25 should have known of the ‘599 Patent and of its own infringing acts, or deliberately  
26 took steps to avoid learning of those facts.

27 136. Facebook knowingly and intentionally encourages and aids at least its  
28 end-user customers to directly infringe the ‘599 Patent.

1           137. On information and belief, Facebook provides the Accused Products  
2 to customers through various third-party application stores (*e.g.*, the Apple iTunes  
3 App Store) and instructions to end-user customers so that such customers will use  
4 the Accused Products in an infringing manner.

5           138. Facebook's end-user customers directly infringe at least one or more  
6 claims of the '599 Patent by using the Accused Products in their intended manner  
7 to infringe. Facebook induces such infringement by providing the Accused  
8 Products and instructions to enable and facilitate infringement, knowing of, or  
9 being willfully blind to the existence of, the '599 Patent. On information and belief,  
10 Facebook specifically intends that its actions will result in infringement of at least  
11 one or more claims of the '599 Patent, or subjectively believe that their actions will  
12 result in infringement of the '599 Patent, but took deliberate actions to avoid  
13 learning of those facts, as set forth above.

14           139. Additionally, Facebook contributorily infringes at least one or more  
15 claims of the '599 Patent by providing the Accused Products and/or software  
16 components thereof, that embody a material part of the claimed inventions of the  
17 '599 Patent, that are known by Facebook to be specially made or adapted for use in  
18 an infringing manner, and are not staple articles with substantial non-infringing  
19 uses. The Accused Products are specially designed to infringe at least one or more  
20 claims of the '599 Patent, and their accused components have no substantial non-  
21 infringing uses. In particular, on information and belief, the software modules and  
22 code that implement and perform the infringing functionalities identified above are  
23 specially made and adapted to carry out said functionality and do not have any  
24 substantial non-infringing uses.

25           140. Facebook's infringement of the '599 Patent was and continues to be  
26 willful and deliberate, entitling Corrino to enhanced damages.

27           141. Additional allegations regarding Facebook's knowledge of the '599  
28 Patent and willful infringement will likely have evidentiary support after a

1 reasonable opportunity for discovery.

2 142. Facebook’s infringement of the ‘599 Patent is exceptional and entitles  
3 Corrino to attorneys’ fees and costs incurred in prosecuting this action under 35  
4 U.S.C. § 285.

5 143. Corrino is in compliance with any applicable marking and/or notice  
6 provisions of 35 U.S.C. § 287 with respect to the ‘599 Patent.

7 144. Corrino is entitled to recover from Facebook all damages that Corrino  
8 has sustained as a result of Facebook’s infringement of the ‘599 Patent, including,  
9 without limitation, a reasonable royalty.

10 **COUNT IV: INFRINGEMENT OF U.S. PATENT NO. 7,525,450**

11 145. Corrino incorporates by reference and re-alleges all the foregoing  
12 paragraphs of this Complaint as if fully set forth herein.

13 146. Defendant Facebook has infringed and is infringing, either literally or  
14 under the doctrine of equivalents, the ‘450 Patent in violation of 35 U.S.C. § 271 *et*  
15 *seq.*, directly and/or indirectly, by making, using, offering for sale, or selling in the  
16 United States, and/or importing into the United States without authority or license,  
17 products and services that direct location-based information to location-specific  
18 users, including the Facebook [www.facebook.com](http://www.facebook.com) website and mobile application,  
19 that infringe at least one or more claims of the ‘450 Patent.

20 147. As just one non-limiting example, set forth below is a description of  
21 infringement of exemplary claim 11 of the ‘450 Patent in connection with the  
22 Accused Products. This description is based on publicly available information.  
23 Corrino reserves the right to modify this description, including, for example, on the  
24 basis of information about the Accused Products that it obtains during discovery.

25 ***11(a): A system comprising:***—As noted above, Facebook is a social  
26 networking platform that provides services by which certain Facebook users  
27 (*e.g.*, Facebook advertisers) can target other Facebook users such that those  
28 users’ communications devices receive the advertisers’ advertisements when

1 certain predefined conditions are met. An example of such a service is  
2 Facebook’s Location Targeting service. Facebook at least makes and uses a  
3 system (*e.g.*, one or more servers) configured in accordance with claim 11 to  
4 facilitate providing the Location Targeting service for one or more Facebook  
5 advertisers. Indeed, as explained by Facebook, “[l]ocation targeting helps  
6 you find people where you do business, helping you create ads that are  
7 relevant to people based on their location.” <https://www.facebook.com/business/a/location-targeting>. Facebook further explains that “[y]ou can  
8 already choose from areas near you, including country, state or ZIP code, but  
9 we now have expanded features that will give you even more ways to reach  
10 people in specific areas.” *Id.*

11 ***11(b): an information source database comprising an index of information***  
12 ***sources, wherein each information source is associated with (i) a***  
13 ***demographic code and (ii) one or more location codes, wherein each***  
14 ***location code corresponds to a geographic region;***—Facebook at least  
15 makes and uses a system (*e.g.*, one or more servers) to facilitate providing its  
16 Location Targeting service that comprises an information source database  
17 comprising an index of information sources, wherein each information  
18 source is associated with (i) a demographic code and (ii) one or more location  
19 codes, wherein each location code corresponds to a geographic region.

20  
21 For instance, the one or more servers that are configured to facilitate  
22 providing Facebook’s Location Targeting services enable a Facebook  
23 advertiser’s relevant data (*e.g.*, an advertisement) to be provided to a  
24 particular “audience” (*i.e.*, communications devices of particular Facebook  
25 users). Facebook allows a Facebook advertiser to define the particular  
26 “audience” based on a variety of factors (*e.g.*, geographic regions and  
27 demographics), and by doing so, associates the advertiser (and its  
28 advertisements) with the factors that define its particular audience.

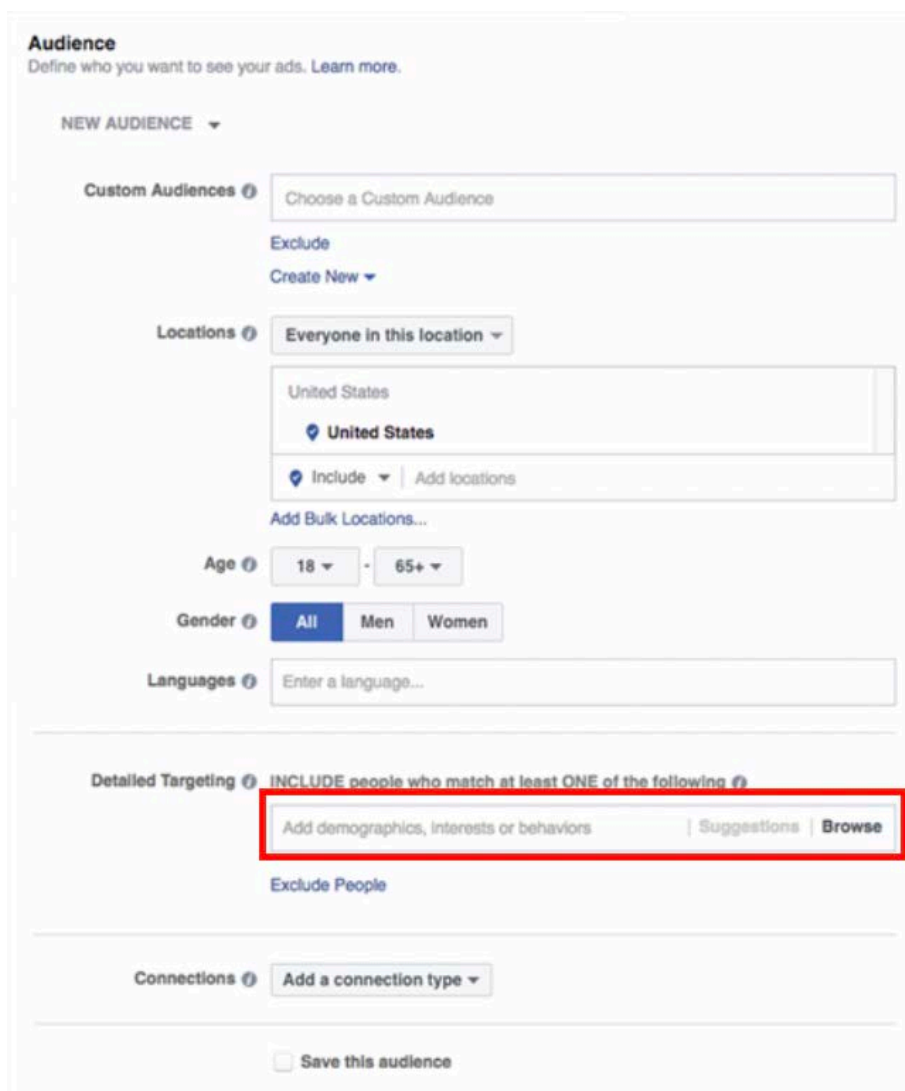
1 <https://www.facebook.com/business/products/ads/ad-targeting> (“Whether  
2 you’re a flower shop that wants more local customers or an online electronics  
3 retailer looking for people interested in your products, our Core Audiences  
4 targeting options—the targeting features built into Ads Manager—allow you  
5 to reach people based on their demographics, location, interests and  
6 behaviors.”). In this respect, the one or more servers maintain an index of  
7 Facebook advertisers and their respective associations.

8 An example of a factor by which a Facebook advertiser can define its  
9 “audience” is one or more demographic criterion. For instance, Facebook’s  
10 “Core Audiences targeting options—the targeting features built into Ads  
11 Manager—allow you to reach people based on their demographics, location,  
12 interests and behaviors.” [https://www.facebook.com/business/products/ads/  
13 ad-targeting](https://www.facebook.com/business/products/ads/ad-targeting). In particular, Facebook’s “demographics” allow an advertiser  
14 to “[f]ind people based on traits like age, gender, relationship status,  
15 education, workplace, job titles and more,” Facebook’s “interests” allow an  
16 advertiser to “[f]ind people based on what they’re into, like hobbies, favorite  
17 entertainment and more,” and Facebook’s “behaviors” allow an advertiser to  
18 “[r]each people based on their purchase behaviors, device usage and other  
19 activities.” *Id.* Facebook further explains that “[d]etailed targeting is a  
20 targeting option available in the ‘Audience’ section of ad set creation that  
21 allows you to refine the group of people we show your ads to. You can do  
22 this with additional demographic information, interests and behaviors. These  
23 detailed targeting options may be based on: [1] Apps they use [2] Ads they  
24 click [3] Pages they engage with [4] Activities people engage in on and off  
25 Facebook related to things like their device usage, purchase behaviors or  
26 intents and travel preferences [5] Demographics like age, gender and location  
27 [6] The mobile device they use and the speed of their network connection[.]  
28 You can browse the full list of detailed targeting options or search for specific



1 ones using the ‘Add demographics, interests or behaviors’ search bar.”  
2 [https://www.facebook.com/business/help/182371508761821?helpref=page](https://www.facebook.com/business/help/182371508761821?helpref=page_content)  
3 [\\_content](https://www.facebook.com/business/help/182371508761821?helpref=page_content).

4 An example graphical user interface through which an advertiser is  
5 associated with one or more demographic criterion is shown below. The red-  
6 box annotation identifies where an advertiser searches/browses and selects  
7 particular demographic criteria to be associated.



**Audience**  
Define who you want to see your ads. [Learn more.](#)

NEW AUDIENCE ▾

Custom Audiences ⓘ Choose a Custom Audience  
Exclude  
Create New ▾

Locations ⓘ Everyone in this location ▾  
United States  
United States  
Include ▾ | Add locations  
Add Bulk Locations...

Age ⓘ 18 ▾ - 65+ ▾

Gender ⓘ All Men Women

Languages ⓘ Enter a language...

Detailed Targeting ⓘ INCLUDE people who match at least ONE of the following ⓘ  
Add demographics, interests or behaviors | Suggestions | Browse  
Exclude People

Connections ⓘ Add a connection type ▾

Save this audience

26 <https://www.facebook.com/business/learn/facebook-ads-choose-audience>.

27 On information and belief, each of Facebook’s demographic criterion  
28 (discussed above) corresponds to a respective demographic code that is

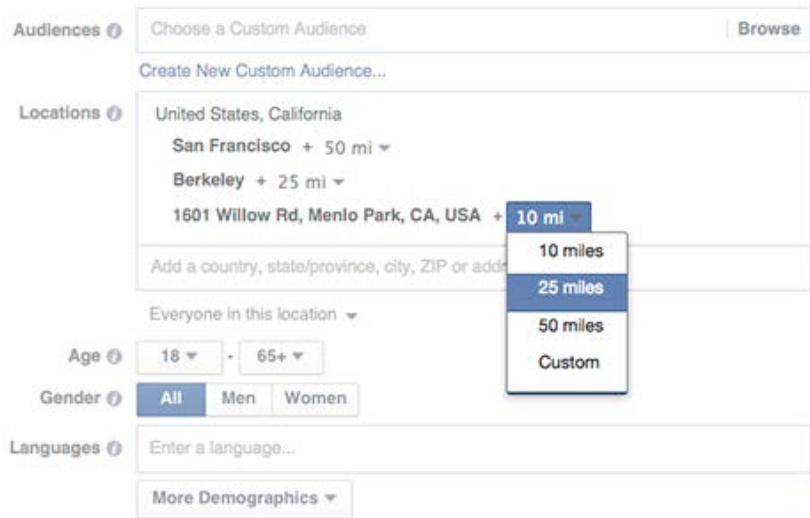
1 utilized to associate the particular demographic criteria with a given  
2 Facebook advertiser. For example, on information and belief, each of the  
3 selectable demographic criterion that appear in the red-box annotation in the  
4 above illustration when the advertiser searches/browses has a corresponding  
5 demographic code that becomes associated with the Facebook advertiser  
6 when selected. *See, e.g.*, [https://developers.facebook.com/docs/marketing-  
7 api/targeting-search](https://developers.facebook.com/docs/marketing-api/targeting-search) (explaining that each particular demographic criteria has  
8 a corresponding “Facebook ID of demographic targeting”).

9 Another example of a factor by which a Facebook advertiser can  
10 define its “audience” is one or more geographic regions. [https://www.face  
11 book.com/business/products/ads/ad-targeting](https://www.facebook.com/business/products/ads/ad-targeting) (“Reach people in areas where  
12 you want to do business. You can even create a radius around a store to help  
13 create more walk-ins.”). A Facebook advertiser (and its relevant data) can  
14 be associated with one or more geographic regions in a variety of manners.

15 As one possibility, any Facebook advertiser that utilizes Facebook’s  
16 “radius targeting” feature is associated with at least one geographic region  
17 and defines a corresponding distance around that at least one geographic  
18 region. As explained by Facebook, “[l]ocation targeting lets you select your  
19 audience within a custom radius from the following locations: [1] Country  
20 [2] State or region [3] City [4] DMA®\* [(Designated Market Area) regions  
21 are the geographic areas in the United States in which local television  
22 viewing is measured by Nielsen.] [5] Zip or post code[.]” [https://  
23 www.facebook.com/business/a/location-targeting](https://www.facebook.com/business/a/location-targeting).

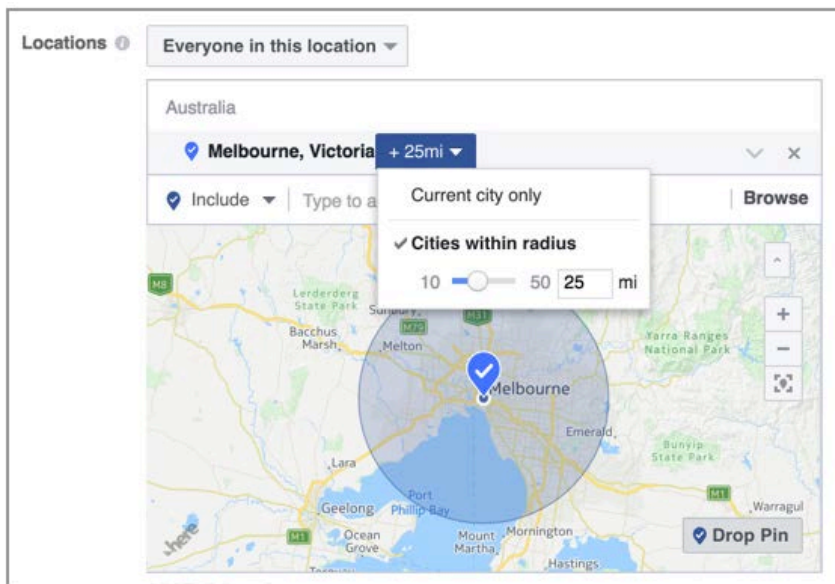
24 Facebook provides an example illustration in which a Facebook  
25 advertiser becomes associated with at least two geographic regions (*e.g.*, San  
26 Francisco and Berkeley, California) and in which the advertiser defines a  
27 corresponding distance around each region (*e.g.*, 50-mile radius around San  
28 Francisco and 25-mile radius around Berkeley):

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<https://www.facebook.com/business/a/location-targeting>.

Facebook provides another example illustration in which a Facebook advertiser becomes associated with a geographic region (*e.g.*, Melbourne, Victoria in Australia) and in which the advertiser defines a corresponding distance around that region (*e.g.*, 25-mile radius around the city), and explains “[t]he radius itself appears on the targeting map. It can be adjusted by clicking the button next to each location and using the slider and field that appear.”



<https://www.facebook.com/business/help/202297959811696>.

1 As another possibility, any Facebook advertiser that utilizes  
2 Facebook’s “business locations targeting” feature is associated with at least  
3 one geographic region (*e.g.*, the physical space occupied by the business’  
4 building(s)) and defines a corresponding distance around that at least one  
5 geographic region. *See, e.g.*, [https://www.facebook.com/business/help/  
6 202297959811696](https://www.facebook.com/business/help/202297959811696) (“Business Locations targeting allows you to reach  
7 people near your business’s physical locations.”); [https://www.face  
8 book.com/business/products/ads/ad-targeting](https://www.facebook.com/business/products/ads/ad-targeting) (“Reach people in areas where  
9 you want to do business. You can even create a radius around a store to help  
10 create more walk-ins.”).

11 In particular, Facebook generally explains that “[f]irst, you will need  
12 to upload your business locations,” then “[s]elect the Country of your  
13 business location then add specific store locations within the country you’ve  
14 selected,” and lastly, “[c]hoose the radius around each of your business  
15 locations that you want to reach people in.” [https://www.facebook.com/  
16 business/help/202297959811696](https://www.facebook.com/business/help/202297959811696). With respect to this last step, Facebook  
17 further explains that “[y]ou can either select Automatic Radius to allow us to  
18 automatically set a radius around your store locations, or choose Fixed  
19 Radius to reach people within a fixed distance to one of your locations.” *Id.*

20 On information and belief, Facebook’s geographic regions (discussed  
21 above) correspond to respective location codes that are utilized to associate  
22 particular geographic regions with Facebook advertisers. *See, e.g.*, [https://  
23 developers.facebook.com/docs/marketing-api/targeting-search](https://developers.facebook.com/docs/marketing-api/targeting-search) (describing  
24 various location codes utilized by Facebook, including “region codes” for  
25 countries, “city codes” for cities, “locale codes” for locales, etc.).

26 ***11(c): a communications device database comprising an index of***  
27 ***communications devices, wherein each communications device is***  
28 ***associated with a demographic code; and***—Facebook at least makes and

1 uses a system (*e.g.*, one or more servers) to facilitate providing its Location  
2 Targeting service that comprises a communications device database  
3 comprising an index of communications devices, wherein each  
4 communications device is associated with a demographic code.

5 For example, Facebook associates users and their respective  
6 communications devices with a variety of demographic information, which  
7 it uses to personalize Facebook's services for the users, such as by  
8 customizing the advertisements provided to the users' communications  
9 devices. *See, e.g.*, [https://www.facebook.com/ads/about/?entry\\_product=](https://www.facebook.com/ads/about/?entry_product=ad_preferences)  
10 [ad\\_preferences](https://www.facebook.com/ads/about/?entry_product=ad_preferences) ("Ads are shown to you based on your activity across  
11 Facebook companies and products - such as . . . Information from your  
12 Facebook and Instagram profile," "Websites you visit or apps you use can  
13 send Facebook data directly . . . to help us show you ads based on products  
14 or services you've looked at, such as a shirt on a clothing retailer's website.  
15 Examples of this include . . . Adding a product to a shopping cart or making  
16 a purchase," "Our ad system prioritizes what ad to show you based on what  
17 advertisers tell us their desired audience is, and we then match it to people  
18 who might be interested in that ad. This means we can show you relevant and  
19 useful ads without advertisers learning who you are.").

20 On information and belief, the various demographic information  
21 collected by Facebook on its users to personalize advertisements correspond  
22 to respective demographic codes that are utilized to associate particular  
23 demographic information with Facebook users and their respective  
24 communications devices. *See, e.g.*, [https://developers.facebook.com/docs/](https://developers.facebook.com/docs/marketing-api/targeting-search)  
25 [marketing-api/targeting-search](https://developers.facebook.com/docs/marketing-api/targeting-search) (explaining that each particular demographic  
26 criteria has a corresponding "Facebook ID of demographic targeting"). In  
27 this respect, the one or more servers maintain an index of Facebook users'  
28 communications devices and their respective associations.

1            *11(d): a processor for initiating the transmission of relevant data to*  
2            *a communications device in response to receiving (i) an identifier*  
3            *corresponding to the communications device and (ii) an indication of the*  
4            *geographic position of the communications device, wherein the relevant*  
5            *data originates from at least one information source that is associated with*  
6            *both (i) a location code corresponding to a geographic region within a*  
7            *defined distance from the geographic position specified in the received*  
8            *indication, and (ii) a demographic code associated with the*  
9            *communications device specified in the received indication.*—Facebook at  
10           least makes and uses a system (*e.g.*, one or more servers) to facilitate  
11           providing its Location Targeting service that comprises a processor for  
12           initiating the transmission of relevant data to a communications device in  
13           response to receiving (i) an identifier corresponding to the communications  
14           device and (ii) an indication of the geographic position of the  
15           communications device, wherein the relevant data originates from at least  
16           one information source that is associated with both (i) a location code  
17           corresponding to a geographic region within a defined distance from the  
18           geographic position specified in the received indication, and (ii) a  
19           demographic code associated with the communications device specified in  
20           the received indication.

21           For example, on information and belief, the one or more servers that  
22           facilitate Facebook’s Location Targeting service comprise a processor  
23           configured to initiate the transmission of relevant data (*e.g.*, an  
24           advertisement) to a communications device in response to receiving (i) an  
25           identifier corresponding to the communications device and (ii) an indication  
26           of the geographic position of the communications device.

27           For instance, on information and belief, when a Facebook user’s  
28           communications device has Facebook’s location services enabled, the one or

1 more servers receive an identifier corresponding to the communications  
2 devices. *See, e.g.*, <https://www.facebook.com/policy.php> (“[W]e collect  
3 information from and about the computers, phones, connected TVs and other  
4 web-connected devices you use that integrate with our Products, and we  
5 combine this information across different devices you use. For example, we  
6 use information collected about your use of our Products on your phone to  
7 better personalize the content (including ads) or features you see when you  
8 use our Products on another device, such as your laptop or tablet, or to  
9 measure whether you took an action in response to an ad we showed you on  
10 your phone on a different device. Information we obtain from these devices  
11 includes . . . Identifiers: unique identifiers, device IDs, and other identifiers,  
12 such as from games, apps or accounts you use, and Family Device IDs (or  
13 other identifiers unique to Facebook Company Products associated with the  
14 same device or account”).

15 Moreover, when a Facebook user’s communications device has  
16 Facebook’s location services enabled, the one or more servers monitor the  
17 geographic position of the communications device to facilitate Facebook’s  
18 Location Targeting service. *See, e.g.*, [https://www.facebook.com/about/  
19 basics/manage-your-privacy/location#1](https://www.facebook.com/about/basics/manage-your-privacy/location#1) (“Location History is a timeline of  
20 specific places you have been, organized into days. You can turn it on or off  
21 in your location settings or delete it at any time within the Facebook app.”).  
22 In this respect, the one or more servers are configured to receive geographic  
23 position data for the communication devices of Facebook users that have not  
24 opted out of allowing Facebook to use location services. *See, e.g.*,  
25 <https://www.facebook.com/about/basics/manage-your-privacy/location#1>  
26 (“Connection information like your IP address or Wi-Fi connection and  
27 specific location information like your device’s GPS signal help us  
28 understand where you are. This information can be used to help you find

1 events nearby and show you local ads and news stories. . . . You can control  
2 whether your device shares precise location information with Facebook  
3 Company Products via Location Services, a setting on your mobile device.  
4 We may still understand your location using things like check-ins, events,  
5 and information about your internet connection.”); [https://www.facebook.com/ads/about/?entry\\_product=ad\\_preferences](https://www.facebook.com/ads/about/?entry_product=ad_preferences) (“We use location data  
6 to show you ads from advertisers trying to reach people in or near a specific  
7 place. We get this information from sources such as: [1] Where you connect  
8 to the internet [and 2] Where you use your phone[.]”).

10 Indeed, Facebook explains that “[t]he choices for audiences within a  
11 location are: [1] (Default) Everyone in this location. People whose current  
12 city on their Facebook profile is that location, as well as anyone determined  
13 to be in that location via mobile device. [2] People who live in this location.  
14 People whose current city from their Facebook profile is within that location.  
15 This is also validated by IP address and their Facebook friends’ stated  
16 locations. [3] Recently in this location. People whose most recent location is  
17 the selected area, as determined only via mobile device. This includes people  
18 who live there or who may be traveling there. [4] People traveling in this  
19 location. People whose most recent location is the selected area, as  
20 determined via mobile device, and are greater than 100 miles from their  
21 stated home location from their Facebook profiles.”  
22 <https://www.facebook.com/business/a/location-targeting>.

23 Thus, in response to receiving the device identifier and geographic  
24 position indication, the one or more servers are configured to initiate the  
25 transmission of a relevant advertisement to the communications device,  
26 where the relevant advertisement originates from a Facebook advertiser that  
27 is associated with both (i) a location code corresponding to a geographic  
28 region within a defined distance from the geographic position specified in



1 the received indication and (ii) a demographic code associated with the  
2 communications device specified in the received indication. For instance, as  
3 discussed above, a Facebook advertiser can define its particular “audience”  
4 based on a variety of factors, including one or more geographic regions and  
5 one or more demographics. In line with the above discussion, along with  
6 being associated with one or more geographic regions, the Facebook  
7 advertiser can set respective defined distances for the one or more geographic  
8 regions. The one or more servers are configured to transmit the Facebook  
9 advertiser’s advertisement to the communications device when (i) the  
10 communications device’s geographic position is within any of the  
11 advertiser’s defined distances corresponding to any of its geographic regions  
12 and (ii) a demographic code associated with the communications device  
13 corresponds to one or more demographics associated with the advertiser.

14 148. Additionally, Defendant Facebook has been, and currently is, an active  
15 inducer of infringement of the ‘450 Patent under 35 U.S.C. § 271(b) and  
16 contributory infringer of the ‘450 Patent under 35 U.S.C. § 271(c).

17 149. Facebook knew of the ‘450 Patent, or at least should have known of  
18 the ‘450 Patent, but was willfully blind to its existence. On information and belief,  
19 Facebook has had actual knowledge of the ‘450 Patent since at least as early as the  
20 filing and/or service of this Complaint.

21 150. Facebook has provided the Accused Products to its customers and, on  
22 information and belief, instructions to use the Accused Products in an infringing  
23 manner while being on notice of (or willfully blind to) the ‘450 Patent and  
24 Facebook’s infringement. Therefore, on information and belief, Facebook knew or  
25 should have known of the ‘450 Patent and of its own infringing acts, or deliberately  
26 took steps to avoid learning of those facts.

27 151. Facebook knowingly and intentionally encourages and aids at least its  
28 end-user customers to directly infringe the ‘450 Patent.

1           152. On information and belief, Facebook provides the Accused Products  
2 to customers through various third-party application stores (*e.g.*, the Apple iTunes  
3 App Store) and instructions to end-user customers so that such customers will use  
4 the Accused Products in an infringing manner.

5           153. Facebook's end-user customers directly infringe at least one or more  
6 claims of the '450 Patent by using the Accused Products in their intended manner  
7 to infringe. Facebook induces such infringement by providing the Accused  
8 Products and instructions to enable and facilitate infringement, knowing of, or  
9 being willfully blind to the existence of, the '450 Patent. On information and belief,  
10 Facebook specifically intends that its actions will result in infringement of at least  
11 one or more claims of the '450 Patent, or subjectively believe that their actions will  
12 result in infringement of the '450 Patent, but took deliberate actions to avoid  
13 learning of those facts, as set forth above.

14           154. Additionally, Facebook contributorily infringes at least one or more  
15 claims of the '450 Patent by providing the Accused Products and/or software  
16 components thereof, that embody a material part of the claimed inventions of the  
17 '450 Patent, that are known by Facebook to be specially made or adapted for use in  
18 an infringing manner, and are not staple articles with substantial non-infringing  
19 uses. The Accused Products are specially designed to infringe at least one or more  
20 claims of the '450 Patent, and their accused components have no substantial non-  
21 infringing uses. In particular, on information and belief, the software modules and  
22 code that implement and perform the infringing functionalities identified above are  
23 specially made and adapted to carry out said functionality and do not have any  
24 substantial non-infringing uses.

25           155. Facebook's infringement of the '450 Patent was and continues to be  
26 willful and deliberate, entitling Corrino to enhanced damages.

27           156. Additional allegations regarding Facebook's knowledge of the '450  
28 Patent and willful infringement will likely have evidentiary support after a

1 reasonable opportunity for discovery.

2 157. Facebook's infringement of the '450 Patent is exceptional and entitles  
3 Corrino to attorneys' fees and costs incurred in prosecuting this action under 35  
4 U.S.C. § 285.

5 158. Corrino is in compliance with any applicable marking and/or notice  
6 provisions of 35 U.S.C. § 287 with respect to the '450 Patent.

7 159. Corrino is entitled to recover from Facebook all damages that Corrino  
8 has sustained as a result of Facebook's infringement of the '450 Patent, including,  
9 without limitation, a reasonable royalty.

10 **COUNT V: INFRINGEMENT OF U.S. PATENT NO. 7,847,685**

11 160. Corrino incorporates by reference and re-alleges all the foregoing  
12 paragraphs of this Complaint as if fully set forth herein.

13 161. Defendant Facebook has infringed and is infringing, either literally or  
14 under the doctrine of equivalents, the '685 Patent in violation of 35 U.S.C. § 271 *et*  
15 *seq.*, directly and/or indirectly, by making, using, offering for sale, or selling in the  
16 United States, and/or importing into the United States without authority or license,  
17 products and services that direct location-based information to location-specific  
18 users, including the Facebook [www.facebook.com](http://www.facebook.com) website and mobile application,  
19 that infringe at least one or more claims of the '685 Patent.

20 162. As just one non-limiting example, set forth below is a description of  
21 infringement of exemplary claim 19 of the '685 Patent in connection with the  
22 Accused Products. This description is based on publicly available information.  
23 Corrino reserves the right to modify this description, including, for example, on the  
24 basis of information about the Accused Products that it obtains during discovery.

25 **19(a): A system comprising:**—As noted above, Facebook is a social  
26 networking platform that provides services by which a Facebook user utilizes  
27 a communications device to obtain search-query results related to a query  
28 that can be based on a variety of search parameters. Facebook at least makes

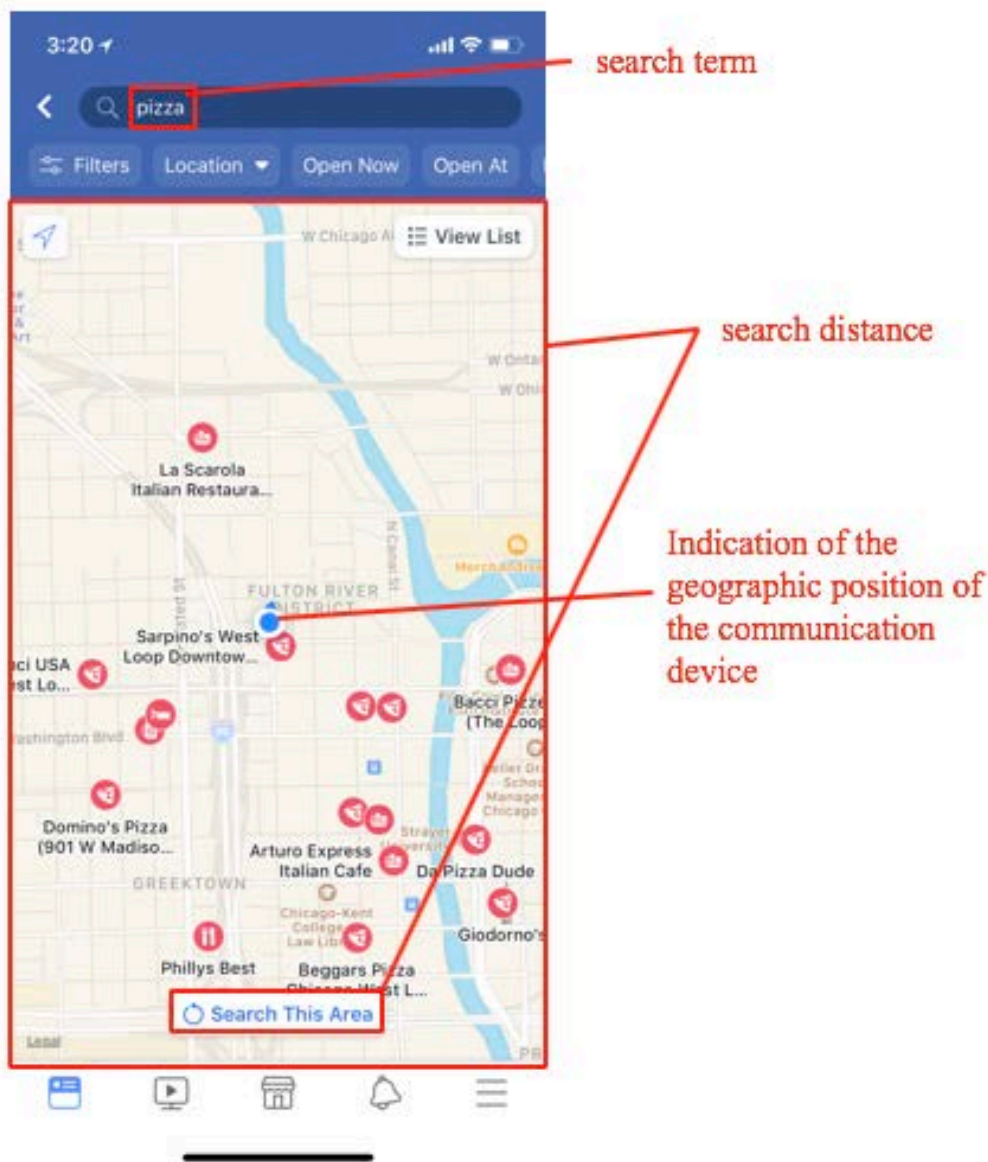
1 and uses a system (*e.g.*, one or more servers) configured in accordance with  
2 claim 19 to facilitate providing its searching services.

3 ***19(b): one or more processors configured to receive a search query from a***  
4 ***communications device, the search query comprising an identifier***  
5 ***corresponding to the communications device, an indication of the***  
6 ***geographic position of the communications device, a search distance, and***  
7 ***at least one search term; and***—Facebook at least makes and uses a system  
8 (*e.g.*, one or more servers) to facilitate providing its searching services that  
9 comprises one or more processors configured to receive a search query from  
10 a communications device, the search query comprising an identifier  
11 corresponding to the communications device, an indication of the geographic  
12 position of the communications device, a search distance, and at least one  
13 search term.

14 For instance, the one or more servers are configured to receive search  
15 queries from Facebook users' communications devices (*e.g.*, mobile phones)  
16 running, for instance, the Facebook mobile app, in which the search queries  
17 include a variety of search parameters. *See, e.g.*,  
18 <https://www.facebook.com/help/www/400002116752060> (“You can search  
19 for people, posts, photos, videos, places, Pages, Groups, apps, links and  
20 events on Facebook. Start searching with keywords (example: Caroline  
21 wedding) and you’ll see a list of results that you can filter.”);  
22 <https://www.facebook.com/help/113625708804960> (“You see unique search  
23 results based on: Your connections to people, places, things.”).

24 In particular, an example Facebook search query illustrated below  
25 includes an identifier corresponding to a communications device, an  
26 indication of the geographic position of the communication device (*e.g.*, as  
27 evidenced by the blue indicator shown below), a search distance (*e.g.*,  
28 defined by the selected map area), and at least one search term (*e.g.*, “pizza”):

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Moreover, Facebook explains that it collects data relating to communication devices, including data relating to “device attributes,” “device operations,” “identifiers,” and “device signals,” among other data. <https://www.facebook.com/privacy/explanation>; *see also, e.g.*, <https://www.facebook.com/policy.php> (“[W]e collect information from and about the computers, phones, connected TVs and other web-connected devices you use that integrate with our Products, and we combine this information across different devices you use. For example, we use information collected about

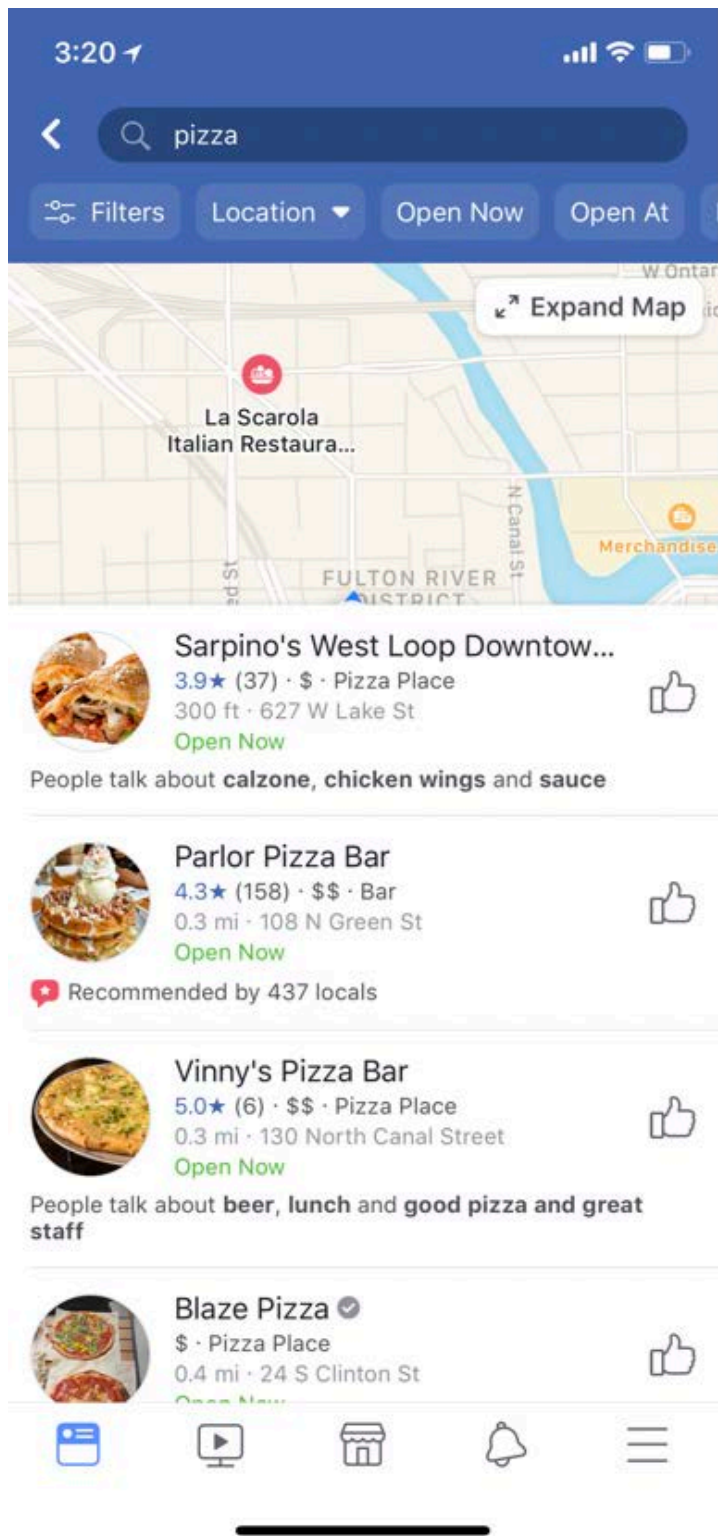
1 your use of our Products on your phone to better personalize the content  
2 (including ads) or features you see when you use our Products on another  
3 device, such as your laptop or tablet, or to measure whether you took an  
4 action in response to an ad we showed you on your phone on a different  
5 device. Information we obtain from these devices includes . . . Identifiers:  
6 unique identifiers, device IDs, and other identifiers, such as from games, apps  
7 or accounts you use, and Family Device IDs (or other identifiers unique to  
8 Facebook Company Products associated with the same device or account”).

9 Facebook further explains that it collects various data to provide  
10 “location-related information,” which “can be based on things like precise  
11 device location . . .,” among other things. *Id*; *see also, e.g.*,  
12 <https://developers.facebook.com/docs/places/web/search> (“You use these  
13 parameters to define your search criteria. . . . The following example request  
14 searches for Places with ‘cafe’ in their Place name, and within one kilometer  
15 of the specified coordinates. For each Place returned, the API call requests  
16 the Place name, the number of Checkins, and the Place’s profile picture.”).

17 ***19(c): wherein the one or more processors are configured to initiate the***  
18 ***transmission of a list of one or more search results to the communications***  
19 ***device in response to the search query,***—Facebook at least makes and uses  
20 a system (*e.g.*, one or more servers) to facilitate providing its searching  
21 services that comprises one or more processors configured to initiate the  
22 transmission of a list of one or more search results to the communications  
23 device in response to the search query.

24 For instance, in addition to the “map” view shown in the screenshot  
25 above (which displays search results for the selected map area), Facebook  
26 transmits a list of one or more search results to the communications device  
27 in response to the search query. One example screenshot of this list  
28 (corresponding to the above selected map area) is shown below:

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Indeed, Facebook provides the following search-query-results example that includes a returned list of search results:

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**Example**

2

The following example request searches for Places with "cafe" in their Place name, and within one kilometer of the specified coordinates. For each Place returned, the API call requests the Place name, the number of Checkins, and the Place's profile picture.

3

4

**Request**

5

```
GET https://graph.facebook.com/search
?type=place
&fields=name,checkins,picture
&q=cafe
&center=40.7304,-73.9921
&distance=1000
```

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**Response**

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The following example JSON code is returned in response to the example request above.

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```
{
  "data": [
    {
      "name": "Cafe Nødery - Manhattan",
      "checkins": 3097,
      "picture": {
        "data": {
          "is_silhouette": false,
          "url": "https://scontent.xx.fbcdn.net/v/t1.0-1/c0.5.50.50/p50x50/10649901_7256755075"
        }
      },
      "id": "460770554016783"
    },
    {
      "name": "Cafe Mogador",
      "checkins": 25097,
      "picture": {
        "data": {
          "is_silhouette": false,
          "url": "https://scontent.xx.fbcdn.net/v/t1.0-1/c68.15.185.185/s50x50/602492_44189316"
        }
      },
      "id": "111724322196060"
    },
    {
      "name": "Cafe Orlin",
      "checkins": 23367,
      "picture": {
        "data": {
          "is_silhouette": false,
          "url": "https://scontent.xx.fbcdn.net/v/t1.0-1/c7.0.50.50/p50x50/943881_109727567029"
        }
      },
      "id": "147652718587250"
    },
    ...
  ]
}
```

22

<https://developers.facebook.com/docs/places/web/search>.

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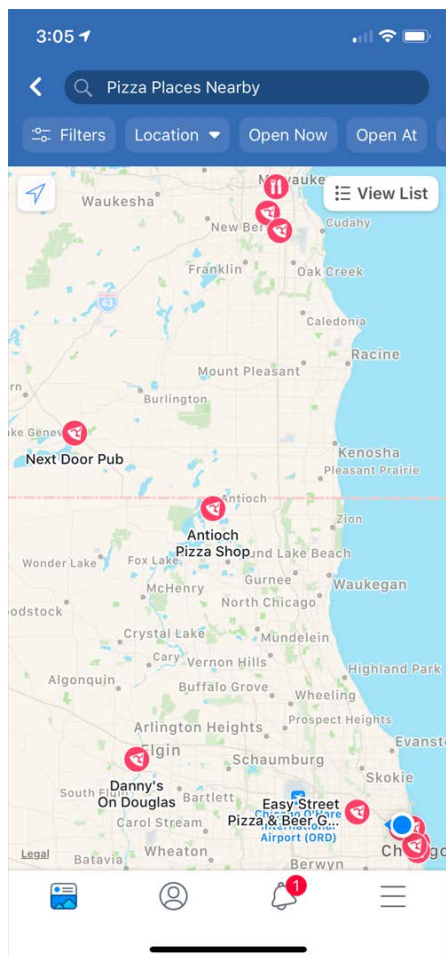
28

*19(d): wherein the list of one or more search results comprises at least one search result that is associated with a location code corresponding to a geographic region, wherein the geographic region corresponding to the location code associated with the at least one search result is a geographic region that is within the specified search distance from the geographic position of the communications device specified in the received search*



1 **query.**—On information and belief, the transmitted list of one or more search  
2 results includes at least one search result that is associated with a location  
3 code corresponding to a geographic region that is within the specified search  
4 distance from the geographic position of the communications device  
5 specified in the received search query.

6 For instance, on information and belief, at least one search result  
7 shown in the below screenshot corresponds to an entity (*e.g.*, a pizza  
8 restaurant) that is associated with a location code corresponding to a  
9 geographic region (*e.g.*, a particular state such as Wisconsin or Illinois, a  
10 particular city such as Chicago or Milwaukee, etc.) that is within the specified  
11 search distance (defined by the selected map area) from the geographic  
12 position of the communications device (represented by the blue indicator  
13 shown below) specified in the received search query.



1           See, e.g., [https://developers.facebook.com/docs/marketing-api/targeting-](https://developers.facebook.com/docs/marketing-api/targeting-search)  
2           search (describing various location codes utilized by Facebook, including  
3           “region codes” for countries, “city codes” for cities, “locale codes” for  
4           locales, etc.).

5           163. Additionally, Defendant Facebook has been, and currently is, an active  
6           inducer of infringement of the ‘685 Patent under 35 U.S.C. § 271(b) and  
7           contributory infringer of the ‘685 Patent under 35 U.S.C. § 271(c).

8           164. Facebook knew of the ‘685 Patent, or at least should have known of  
9           the ‘685 Patent, but was willfully blind to its existence. On information and belief,  
10          Facebook has had actual knowledge of the ‘685 Patent since at least as early as the  
11          filing and/or service of this Complaint.

12          165. Facebook has provided the Accused Products to its customers and, on  
13          information and belief, instructions to (i) use the Accused Products in an infringing  
14          manner and/or (ii) make an infringing device, while being on notice of (or willfully  
15          blind to) the ‘685 Patent and Facebook’s infringement. Therefore, on information  
16          and belief, Facebook knew or should have known of the ‘685 Patent and of its own  
17          infringing acts, or deliberately took steps to avoid learning of those facts.

18          166. Facebook knowingly and intentionally encourages and aids at least its  
19          end-user customers to directly infringe the ‘685 Patent.

20          167. On information and belief, Facebook provides the Accused Products  
21          to customers through various third-party application stores (e.g., the Apple iTunes  
22          App Store) and instructions to end-user customers so that such customers will use  
23          the Accused Products in an infringing manner and/or make an infringing device  
24          comprising the Facebook [www.facebook.com](http://www.facebook.com) website and/or mobile application.

25          168. Facebook’s end-user customers directly infringe at least one or more  
26          claims of the ‘685 Patent by using the Accused Products in their intended manner  
27          to infringe and/or by making an infringing device via downloading the Facebook  
28          [www.facebook.com](http://www.facebook.com) website and/or mobile application. Facebook induces such

1 infringement by providing the Accused Products and instructions to enable and  
2 facilitate infringement, knowing of, or being willfully blind to the existence of, the  
3 '685 Patent. On information and belief, Facebook specifically intends that its  
4 actions will result in infringement of at least one or more claims of the '685 Patent,  
5 or subjectively believe that their actions will result in infringement of the '685  
6 Patent, but took deliberate actions to avoid learning of those facts, as set forth  
7 above.

8 169. Additionally, Facebook contributorily infringes at least one or more  
9 claims of the '685 Patent by providing the Accused Products and/or software  
10 components thereof, that embody a material part of the claimed inventions of the  
11 '685 Patent, that are known by Facebook to be specially made or adapted for use in  
12 an infringing manner, and are not staple articles with substantial non-infringing  
13 uses. The Accused Products are specially designed to infringe at least one or more  
14 claims of the '685 Patent, and their accused components have no substantial non-  
15 infringing uses. In particular, on information and belief, the software modules and  
16 code that implement and perform the infringing functionalities identified above are  
17 specially made and adapted to carry out said functionality and do not have any  
18 substantial non-infringing uses.

19 170. Facebook's infringement of the '685 Patent was and continues to be  
20 willful and deliberate, entitling Corrino to enhanced damages.

21 171. Additional allegations regarding Facebook's knowledge of the '685  
22 Patent and willful infringement will likely have evidentiary support after a  
23 reasonable opportunity for discovery.

24 172. Facebook's infringement of the '685 Patent is exceptional and entitles  
25 Corrino to attorneys' fees and costs incurred in prosecuting this action under 35  
26 U.S.C. § 285.

27 173. Corrino is in compliance with any applicable marking and/or notice  
28 provisions of 35 U.S.C. § 287 with respect to the '685 Patent.

1 174. Corrino is entitled to recover from Facebook all damages that Corrino  
2 has sustained as a result of Facebook's infringement of the '685 Patent, including,  
3 without limitation, a reasonable royalty.

4 **COUNT VI: INFRINGEMENT OF U.S. PATENT NO. 7,716,149**

5 175. Corrino incorporates by reference and re-alleges all the foregoing  
6 paragraphs of this Complaint as if fully set forth herein.

7 176. Defendant Facebook has infringed and is infringing, either literally or  
8 under the doctrine of equivalents, the '149 Patent in violation of 35 U.S.C. § 271 *et*  
9 *seq.*, directly and/or indirectly, by making, using, offering for sale, or selling in the  
10 United States, and/or importing into the United States without authority or license,  
11 products and services that direct location-based information to location-specific  
12 users, including the Facebook www.facebook.com website and mobile application,  
13 that infringe at least one or more claims of the '149 Patent.

14 177. As just one non-limiting example, set forth below is a description of  
15 infringement of exemplary claim 1 of the '149 Patent in connection with the  
16 Accused Products. This description is based on publicly available information.  
17 Corrino reserves the right to modify this description, including, for example, on the  
18 basis of information about the Accused Products that it obtains during discovery.

19 ***1(a): A computer controlled method for monitoring a persistent virtual***  
20 ***environment comprising:***—Facebook provides a persistent virtual  
21 environment that takes the form of a social online world. For instance, a user  
22 subscribes to Facebook's social online world by creating an online entity via  
23 a Facebook user account through which the user accesses Facebook's social  
24 networking platform via a computer system running a native Facebook app  
25 or web browser. Within Facebook's social networking platform, a Facebook  
26 user through his/her online entity can virtually experience new sights and  
27 activities, as well as virtually develop social relationships with other  
28 registered Facebook users through their respective online entities.

1 On information and belief, Facebook, through its employees (*e.g.*,  
2 software developers, user support staff, etc.), has utilized and/or continues  
3 utilizing a computer system (*e.g.*, desktop or laptop computer, mobile phone,  
4 tablet, etc.) to perform the computer-controlled method of claim 1, such as  
5 (i) during development of Facebook’s “Page Insights,” (ii) while developing  
6 updates and/or revisions to Page Insights, and/or (iii) while providing  
7 customer support related to Page Insights.

8 ***1(b): displaying, at a computer system, a visualization that represents a***  
9 ***social aspect of said persistent virtual environment, said visualization***  
10 ***responsive to a metric, wherein said visualization represents an overall***  
11 ***interactivity level;***—Facebook causes computer systems to display a  
12 visualization that represents a social aspect of a persistent virtual  
13 environment (*i.e.*, Facebook’s social online world), said visualization  
14 responsive to a metric, wherein said visualization represents an overall  
15 interactivity level.

16 For example, Facebook provides “Page Insights [that] look[] at the  
17 interactions with your Page (*i.e.*, likes, comment and shares).”  
18 <https://www.facebook.com/business/news/audience-insights>; *see also, e.g.*,  
19 <https://www.facebook.com/help/131809553587433> (“You can see how  
20 many people are reacting to, commenting on and sharing your Page posts in  
21 Page Insights.”). As explained by Facebook, “Insights provide information  
22 about your Page’s performance, like demographic data about your audience  
23 and how people are responding to your posts. . . . You can use Insights to:  
24 [1] Understand how people are engaging with your Page [2] View metrics  
25 about your Page’s performance [3] Learn which posts have the most  
26 engagement and see when your audience is on Facebook”  
27 <https://www.facebook.com/help/268680253165747>. Examples of the Page  
28 Insights visualizations that are responsive to metrics and that represent an

1 overall interactivity level include a Page Likes visualization, a Post Reach  
 2 visualization, and an Engagement visualization, among numerous other  
 3 examples. See <https://www.facebook.com/business/a/page/page-insights>;  
 4 see also, e.g., <https://blog.bufferapp.com/facebook-insights> (“The Overview  
 5 tab within Facebook Insights does more than it says. Apart from showing you  
 6 key metrics of your Page (Page Summary), it also shows you the key metrics  
 7 for your five most recent posts and a brief comparison of your Page with  
 8 similar Facebook Pages. . . . The Page Summary section shows you the key  
 9 metrics of your Page for the last seven days, such as Page Likes, Post  
 10 Engagement, and Reach.”).

11 Facebook instructs and encourages its users to access Page Insights via  
 12 a computer system in a variety of manners. As one example, Facebook  
 13 instructs and encourages its users to access Page Insights via a desktop or  
 14 laptop computer as follows:

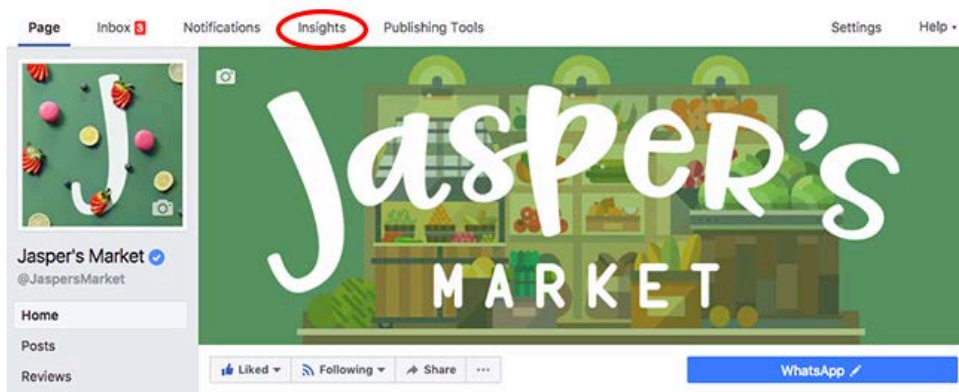
## 15 Where can I see Page Insights?

16 Computer Help Mobile Help ▾

17 [Share Article](#)

18 To see Page Insights:

- 19 1 Click **Insights** at the top of your Page.



- 26 2 Click sections on the left for more information.

27

28 <https://www.facebook.com/help/268680253165747>.

1 As another example, Facebook instructs and encourages its users to  
 2 access Page Insights via an iPhone as follows:

### 3 **Where can I see Page Insights?**

4 Computer Help iPhone App Help Mobile Help ▾

5 [Share Article](#)

6 To see insights about your Page:

- 7 1 Go to your Page.
- 8 2 Tap **Insights** at the top.

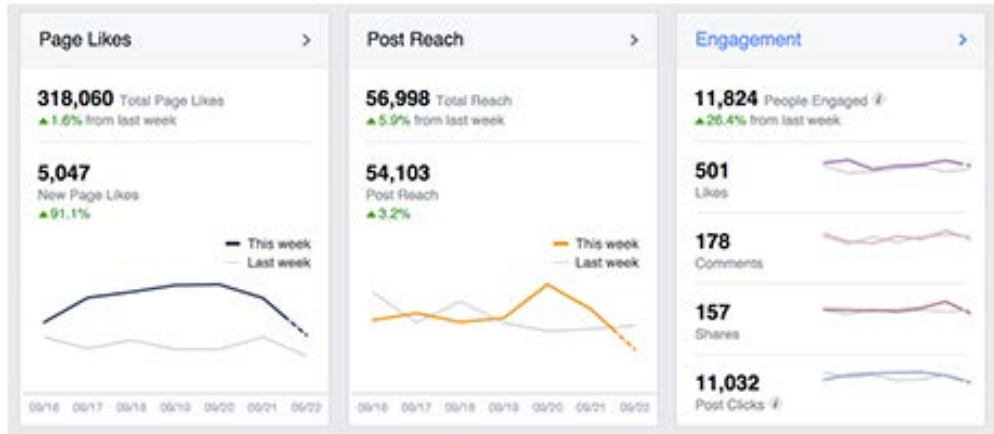


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18 To see more insights or to [export insights](#), log into Facebook from a computer.

19  
20 <https://www.facebook.com/help/iphone-app/268680253165747>.

21  
22 Upon selection of the “Insights” icon (circled in red in the above  
 23 images), Facebook’s servers cause the computer system to display a variety  
 24 of Page Insights visualizations that represent a social aspect of Facebook’s  
 25 social online world. For example, Facebook’s servers cause computer  
 26 systems to display an “Overview” section that “provides a snapshot of the  
 27 last seven days of your Page’s performance. It focuses on 3 core areas: [1]  
 28 Page Likes: Total and new likes for your Page [2] Post Reach: Total number

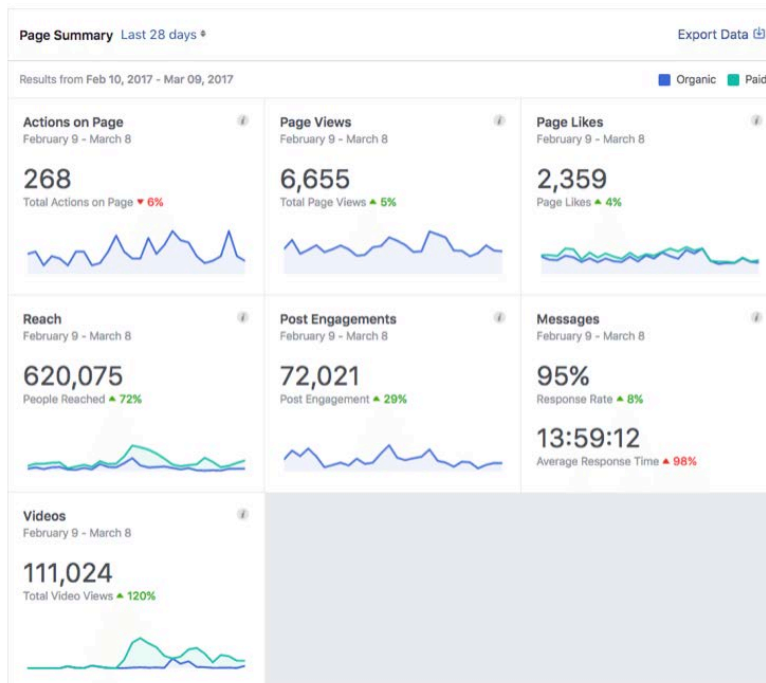
1 of unique people who were shown your Page and posts [3] Engagement:  
 2 Total number of unique people who engaged with your Page, as well as  
 3 different engagement types[.]” An example of this visualization is provided  
 4 below:



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13 *See your total likes, post reach and more*

14 <https://www.facebook.com/business/a/page/page-insights>.

15 Another example of this visualization is provided below, which comes  
 16 from a Facebook user documenting his performance of the method of claim  
 17 1:





1 <https://blog.bufferapp.com/facebook-insights>.

2 On information and belief, Facebook facilitates and/or has facilitated  
3 the performance of this method step, such as in connection with Facebook's  
4 Page Insights, consistent with how Facebook expects and encourages its  
5 users to facilitate the performance of this method step.

6 ***1(c): receiving a selection command at the computer system; and—***  
7 Facebook utilizes computer systems to receive a selection command at the  
8 computer systems.

9 In fact, Facebook instructs and encourages its users to interact with  
10 Page Insights such that the users' computer systems receive selection  
11 commands, which result in the users viewing additional Page Insights  
12 information. For instance, Facebook explains that "[i]f you're looking to  
13 build brand awareness, monitor your Page likes and ensure you're connecting  
14 with more of the people who matter to you by targeting your posts."  
15 <https://www.facebook.com/business/a/page/page-insights>. To monitor Page  
16 likes, a computer system receives a selection command corresponding to, for  
17 example, a selection of the "Page Likes" chevron displayed in the Page  
18 Insights Overview section (identified by the red arrow below).



1 On information and belief, Facebook facilitates and/or has facilitated  
 2 the performance of this method step, such as in connection with Facebook’s  
 3 Page Insights, consistent with how Facebook expects and encourages its  
 4 users to facilitate the performance of this method step.

5 ***1(d): displaying, at the computer system, responsive to said selection***  
 6 ***command, a second visualization that represents drill-down information***  
 7 ***associated with said metric.***—Facebook causes computer systems to display,  
 8 responsive to said selection command, a second visualization that represents  
 9 drill-down information associated with said metric.

10 For example, in response to a computer system receiving the selection  
 11 command corresponding to the selection of the Page Likes chevron  
 12 (discussed above), Facebook’s servers cause the computer system to display  
 13 a second visualization that represents drill-down information associated with  
 14 the Page Likes metric. As explained by Facebook, “in the Likes section” (*i.e.*,  
 15 an example of the second visualization) “you’ll see 3 core metrics: [1] Page  
 16 Likes: The total Page likes for each day, over a 28-day period [2] Net Likes:  
 17 The number of new likes minus the number of unlikes [3] Where Your Page  
 18 Likes Happened: The number of times your Page was liked, broken down by  
 19 where it happened[.]” [https://www.facebook.com/business/a/page/page](https://www.facebook.com/business/a/page/page-insights)  
 20 [insights](https://www.facebook.com/business/a/page/page-insights). An example of a “Total Page Likes” visualization is provided  
 21 below.

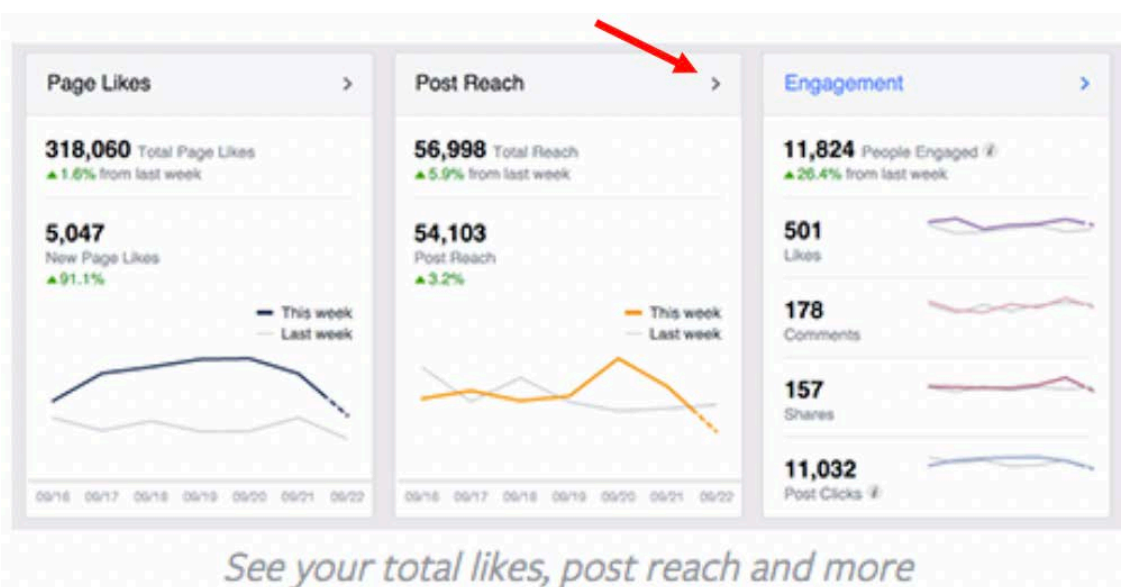


22 See your Page likes metrics

1 <https://www.facebook.com/business/a/page/page-insights>.

2 Computer systems can receive additional selection commands when  
 3 other Page Insights sections are displayed and/or within a displayed Page  
 4 Insights section. In response to a computer system receiving such an  
 5 additional selection command, Facebook's servers cause the computer  
 6 system to display a second visualization that represents drill-down  
 7 information associated with the Page Insights metric. For example, as  
 8 explained by Facebook with reference to the example Total Page Likes  
 9 visualization discussed before, "[s]elect longer periods of time to see your  
 10 metrics by using the chart at the top of the Page" or "[c]lick on a metric in  
 11 the benchmark box on the right to compare data over time[.]"  
 12 <https://www.facebook.com/business/a/page/page-insights>.

13 As yet another example, to monitor "Post Reach," a computer system  
 14 receives a selection command corresponding to, for example, a selection of  
 15 the "Post Reach" chevron displayed in the Overview section (identified by  
 16 the red arrow below).



27 In response to the computer system receiving the selection command  
 28 corresponding to the chevron selection, Facebook's servers cause the

1 computer system to display a second visualization that represents drill-down  
 2 information associated with the Post Reach metric, an example of which is  
 3 shown below.



13 *See how many people your post was served to*

14

15 <https://www.facebook.com/business/a/page/page-insights>.

16 Furthermore, as explained by Facebook with reference to this example  
 17 Post Reach visualization, “[c]lick or drag on the Post Reach, Positive  
 18 Engagement, and Negative Engagement charts, and the pop-up will tell you  
 19 which posts people were seeing during the selected time period. This helps  
 20 you tie content to performance trends in your graph.”  
 21 <https://www.facebook.com/business/a/page/page-insights>. This additional  
 22 “pop-up” amounts to the claimed second visualization as well.

23 On information and belief, Facebook facilitates and/or has facilitated  
 24 the performance of this method step, such as in connection with Facebook’s  
 25 Page Insights, consistent with how Facebook expects and encourages its  
 26 users to facilitate the performance of this method step.

27 178. Additionally, Defendant Facebook has been, and currently is, an active  
 28 inducer of infringement of the ‘149 Patent under 35 U.S.C. § 271(b) and

1 contributory infringer of the '149 Patent under 35 U.S.C. § 271(c).

2 179. Facebook knew of the '149 Patent, or at least should have known of  
3 the '149 Patent, but was willfully blind to its existence. On information and belief,  
4 Facebook has had actual knowledge of the '149 Patent since at least as early as the  
5 filing and/or service of this Complaint.

6 180. Facebook has provided the Accused Products to its customers and, on  
7 information and belief, instructions to (i) use the Accused Products in an infringing  
8 manner and/or (ii) make an infringing device, while being on notice of (or willfully  
9 blind to) the '149 Patent and Facebook's infringement. Therefore, on information  
10 and belief, Facebook knew or should have known of the '149 Patent and of its own  
11 infringing acts, or deliberately took steps to avoid learning of those facts.

12 181. Facebook knowingly and intentionally encourages and aids at least its  
13 end-user customers to directly infringe the '149 Patent.

14 182. On information and belief, Facebook provides the Accused Products  
15 to customers through various third-party application stores (*e.g.*, the Apple iTunes  
16 App Store) and instructions to end-user customers so that such customers will use  
17 the Accused Products in an infringing manner and/or make an infringing device  
18 comprising the Facebook [www.facebook.com](http://www.facebook.com) website and/or mobile application.

19 183. Facebook's end-user customers directly infringe at least one or more  
20 claims of the '149 Patent by using the Accused Products in their intended manner  
21 to infringe and/or by making an infringing device via downloading the Facebook  
22 [www.facebook.com](http://www.facebook.com) website and/or mobile application. Facebook induces such  
23 infringement by providing the Accused Products and instructions to enable and  
24 facilitate infringement, knowing of, or being willfully blind to the existence of, the  
25 '149 Patent. On information and belief, Facebook specifically intends that its  
26 actions will result in infringement of at least one or more claims of the '149 Patent,  
27 or subjectively believe that their actions will result in infringement of the '149  
28 Patent, but took deliberate actions to avoid learning of those facts, as set forth

1 above.

2 184. Additionally, Facebook contributorily infringes at least one or more  
3 claims of the '149 Patent by providing the Accused Products and/or software  
4 components thereof, that embody a material part of the claimed inventions of the  
5 '149 Patent, that are known by Facebook to be specially made or adapted for use in  
6 an infringing manner, and are not staple articles with substantial non-infringing  
7 uses. The Accused Products are specially designed to infringe at least one or more  
8 claims of the '149 Patent, and their accused components have no substantial non-  
9 infringing uses. In particular, on information and belief, the software modules and  
10 code that implement and perform the infringing functionalities identified above are  
11 specially made and adapted to carry out said functionality and do not have any  
12 substantial non-infringing uses.

13 185. Facebook's infringement of the '149 Patent was and continues to be  
14 willful and deliberate, entitling Corrino to enhanced damages.

15 186. Additional allegations regarding Facebook's knowledge of the '149  
16 Patent and willful infringement will likely have evidentiary support after a  
17 reasonable opportunity for discovery.

18 187. Facebook's infringement of the '149 Patent is exceptional and entitles  
19 Corrino to attorneys' fees and costs incurred in prosecuting this action under 35  
20 U.S.C. § 285.

21 188. Corrino is in compliance with any applicable marking and/or notice  
22 provisions of 35 U.S.C. § 287 with respect to the '149 Patent.

23 189. Corrino is entitled to recover from Facebook all damages that Corrino  
24 has sustained as a result of Facebook's infringement of the '149 Patent, including,  
25 without limitation, a reasonable royalty.

26 **COUNT VII: INFRINGEMENT OF U.S. PATENT NO. 7,958,104**

27 190. Corrino incorporates by reference and re-alleges all the foregoing  
28 paragraphs of this Complaint as if fully set forth herein.

1           191. Defendant Facebook has infringed and is infringing, either literally or  
2 under the doctrine of equivalents, the ‘104 Patent in violation of 35 U.S.C. § 271 *et*  
3 *seq.*, directly and/or indirectly, by making, using, offering for sale, or selling in the  
4 United States, and/or importing into the United States without authority or license,  
5 products and services that engage in a contextual-based technique for processing  
6 search requests across data networks, including the Facebook www.facebook.com  
7 website and mobile application, that infringe at least one or more claims of the ‘104  
8 Patent.

9           192. As just one non-limiting example, set forth below (with claim  
10 language in bold and italics) is a description of infringement of exemplary claim 15  
11 of the ‘104 Patent in connection with the Accused Products. This description is  
12 based on publicly available information. Corrino reserves the right to modify this  
13 description, including, for example, on the basis of information about the Accused  
14 Products that it obtains during discovery.

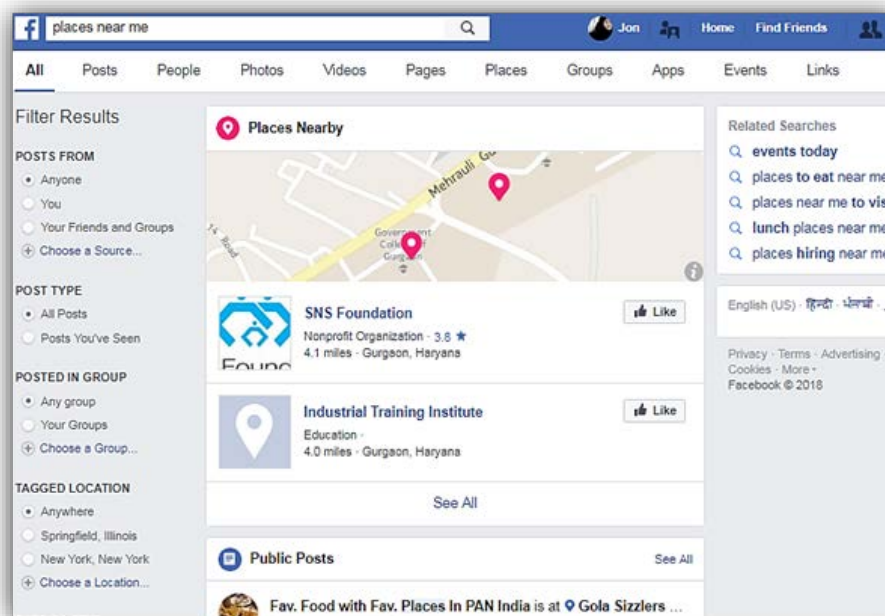
15           ***15(a): A method for facilitating data searching over a network, the method***  
16 ***comprising***— As noted above, Facebook is a social networking platform that  
17 provides services by which Facebook users can submit search requests  
18 through Facebook’s website and Facebook’s website responds by providing  
19 search results responsive to the request. Facebook’s website and its servers,  
20 either alone or in combination, practice the method of claim 15 when  
21 receiving certain search requests and responsively providing results, as set  
22 forth, in one example, below.

23           ***15(b): receiving a search request from a user device via the network, the***  
24 ***search request including information related to the user device***—  
25 Facebook’s website and its servers, either alone or in combination, receive a  
26 search request, including information related to a user device, from a user  
27 device via a network.

28           For example, Facebook’s website provides a search feature allowing

1 users to submit a search query. In particular, Facebook explains that “[t]o  
 2 search for something: 1. Click the search bar at the top of any page on  
 3 Facebook. 2. Enter what you're looking for and choose from the results.”  
 4 <https://www.facebook.com/help/103764609715185>. Facebook further  
 5 explains that “[y]ou can search for people, posts, photos, videos, places,  
 6 Pages, Groups, apps, links and events on Facebook. Start searching with  
 7 keywords (example: Caroline wedding) and you’ll see a list of results that  
 8 you can filter . . . You can also combine phrases together, or add things like  
 9 locations, times, likes and interests to get more specific (ex: friends who live  
 10 in San Francisco).” <https://www.facebook.com/help/400002116752060>.

11 A user may operate a user device (*e.g.*, a computer, mobile phone, or  
 12 tablet) to navigate to the Facebook website and submit a search query (*e.g.*,  
 13 “places near me”), as depicted in the screenshot below.



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 25 When the user enters the search query, Facebook’s website receives  
 26 the query over the Internet in the form of a search request. The search request  
 27 includes, *inter alia*, information related to the user device (*e.g.*, user id, client  
 28 id, browser information, etc.), as depicted in the screenshot below.



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Query String Parameters view source view URL encoded
q: places near me ← query
ref: eyJzaWQiOiIwLjAzMDUyMzIzODAzNDU3MTQ2OCIsInFzIjoisI1RwQ0pUSX1jR3hoWTJWekpUSXdiVZoY2
1VeU1H9WkxVE15S1RWR5IsImd2IjoiyMv1MD1mOTNmYTczMmNmYTU5YTFjYjZkOWY0NTBkMzg5MjQyNGU0OSIs
ImVudF9oZHMlO1tdLCljic21kIjoizMhZDQ2OWQ3NGE3NDgyOGI5ODc4YmVjYjY1MzUzN2U1LClJwcmVsb2FkZm
RFZlZ50aXR5X21kcyI6bnVsbCwicHJ1bG9hZGVkX2VudG10eV90eXB1IjpuZmVsc2JyZWYlO1jic190ZiIsImNz
aWQiOm51bGwsImhpZ2hfY29uZm1kZmVjZV9hcmd1bWVudCI6bnVsbH0
dpr: 1
ajaxpipe: 1
ajaxpipe_token: AXj0pEis4TOyXzaw
quickling[version]: 4177898;0;
user: 12404518 ← Information related to user device
_a: 1
_dyn: 7AgNe-4amaAxd2u6aJGefXqeCwDKEyGzEy4arWo8ovvXGdwIhE98nwgUaUfovHyorxuEbbxwUW3KFQ3ua
US2SUS4e2p1rDx1cxu5od8a8C4E9ohwoU8U5SEuxm2S30eDBwJwGwXIX6Mk6468nxK2C12wgovy8nyETwPxC4
85ex7G48-11z8K18x3x69wyQF8mDhm4-8xGh4yE0m9BK6o-4Kq1ewLx2FUhwOoG12EgVFXAye2y5ojx6bK
_req: fetchstream_8
_be: 1
_pc: EXP2:DEFAULT
_rev: 4177898
_spin_r: 4177898
_spin_b: trunk
_spin_t: 1533583179
_adt: 8
ajaxpipe_fetch_stream: 1

```

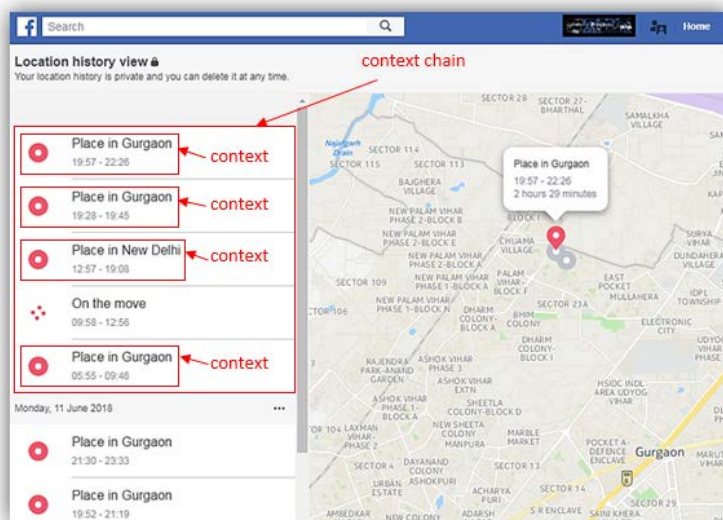
*15(c): processing the search request by identifying a context chain related to the user device based on information passed with the search request, the context chain including a plurality of contexts, each context in the plurality of contexts being a private context in which content is controlled by a publisher, or a public context in which content is not controlled by a publisher*—Facebook’s website processes the search request by identifying a context chain related to the user device based on information passed with the search request, where the context chain includes a plurality of contexts and each context in the plurality of contexts is a private context in which content is controlled by a publisher or a public context in which content is not controlled by a publisher.


For example, Facebook provides a Location History feature that stores the location history of the user’s device. In particular, Facebook explains that:

1 Location History is a setting that allows Facebook to build  
 2 a history of precise locations received through Location  
 3 Services on your device. When Location History is on,  
 4 Facebook will periodically add your current precise location  
 5 to your Location History, even if you leave the app . . . .  
 6 When Location History is turned off, Facebook will stop  
 7 adding new information to your Location History which you  
 8 can view in your Location Settings. Facebook may still  
 9 receive your most recent precise location so that you can,  
 10 for example, post content that's tagged with your location .  
 11 . . . Location History helps you explore what's around you,  
 12 get more relevant ads, and helps improve Facebook.

13 [https://www.facebook.com/location\\_history/info/](https://www.facebook.com/location_history/info/).

14 Thus, in one example, when Facebook's website receives a search  
 15 request from the user's device, it processes the search request by identifying  
 16 a context chain related to the user device (*e.g.*, the Location History for the  
 17 user's device) based on information passed with the search request (*e.g.*, user  
 18 id, client id, browser information, etc.). For example, Facebook's website  
 19 receives the information passed with the search request (*e.g.*, user id, client  
 20 id, browser information, etc.) and uses it to retrieve from storage a context  
 21 chain related to the user device (*e.g.*, the Location History for the user's  
 22 device).



1 An example context chain is depicted in the screenshot above. In this  
2 example, each context (*e.g.*, location) in the plurality of contexts is a public  
3 context in which content is not controlled by a publisher. For example,  
4 Facebook provides a feature through which users can publicly post content  
5 (*e.g.*, a status update, photo, video, group, page, etc.) and associate that  
6 content with a location (*e.g.*, a city). Facebook explains that “[y]ou can add  
7 your location to a post to tell people you're at a specific place, like your home  
8 or a restaurant. To add your location to a new post: 1. Begin writing your  
9 post. 2. Click  to add your location. 3. Click Post.”  
10 <https://www.facebook.com/help/115298751894487>. In Facebook’s system,  
11 locations are public contexts; that is, no publisher (*e.g.*, entity) controls how  
12 or when a user can associate content with a location. In this way, locations  
13 are public contexts, in which content is not controlled by a publisher.

14 ***15(d): responding to the search request by providing at least one search***  
15 ***result to the user device, the search result being obtained from at least one***  
16 ***context in the plurality of contexts.***—Facebook’s website responds to the  
17 search request by providing to the user device at least one search result  
18 obtained from at least one context in the plurality of contexts.

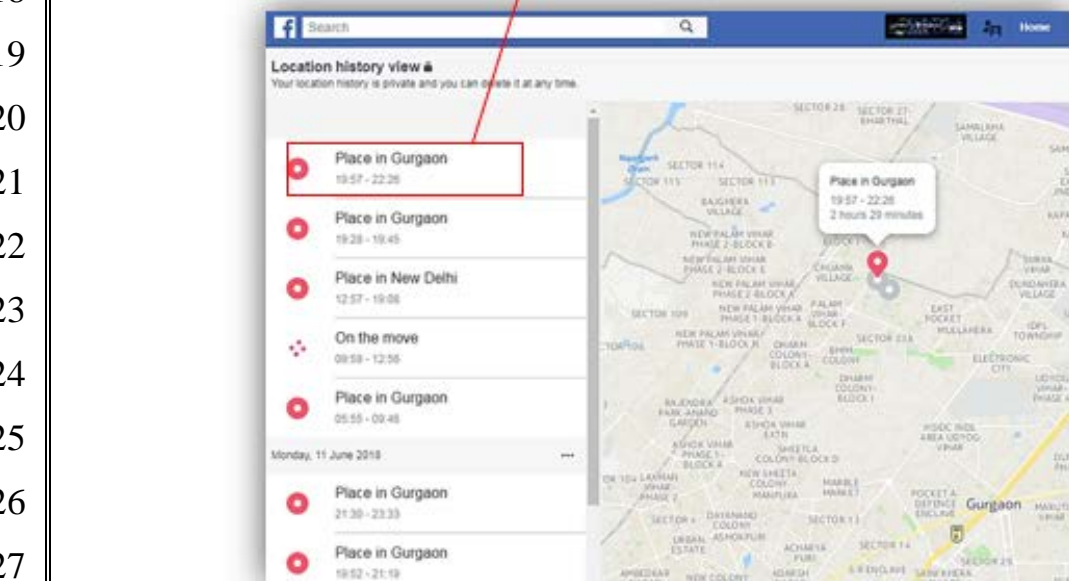
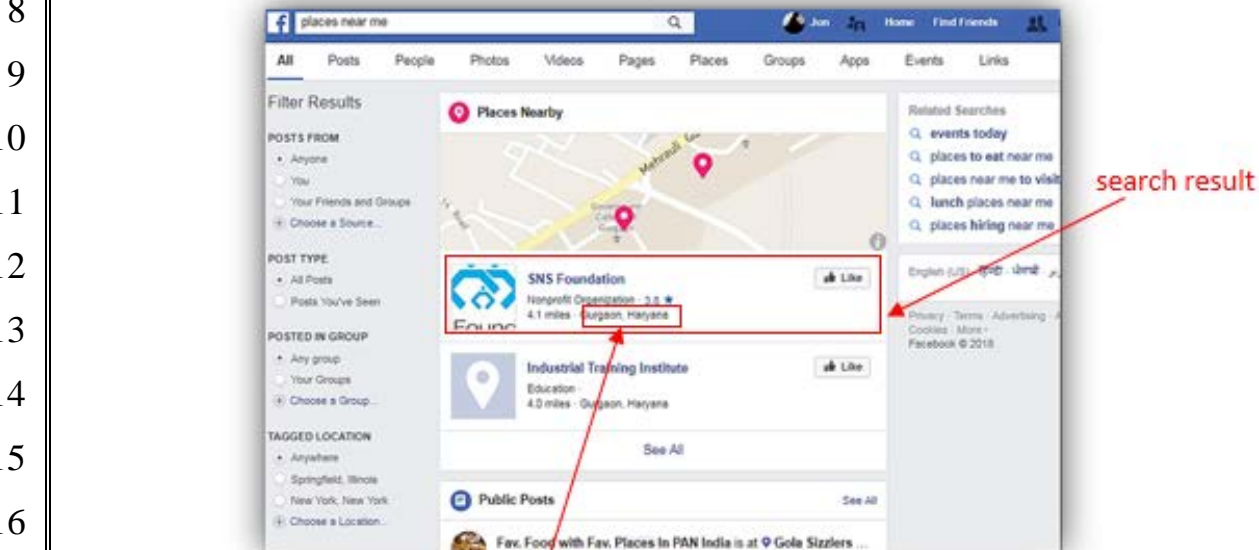
19 For example, Facebook’s website produces search results in response  
20 to receiving the search request from the user device. Particularly, Facebook  
21 explains that:

22 You see unique search results based on:

- 23 • Your connections to people, places, things.
- 24 • What you’re able to see on Facebook, including what your  
25 friends share with you.
- 26 • Your friends, connections and interests, which affect the  
27 order of your results.
- 28 • People’s privacy settings. For example, if you search “photo  
Paris,” you may see photos your friends took and shared  
with you first.

1 https://www.facebook.com/help/113625708804960.

2 Facebook’s website produces search results that include at least one  
3 search result that is obtained from one of the contexts in the identified context  
4 chain, as set forth above. In the example depicted below, in response to the  
5 search request that included the query “places near me,” Facebook’s website  
6 produced a search result for “SNS Foundation,” which was obtained from the  
7 “Gurgaon” context.



1           193. Additionally, Defendant Facebook has been, and currently is, an active  
2 inducer of infringement of the '104 Patent under 35 U.S.C. § 271(b) and  
3 contributory infringer of the '104 Patent under 35 U.S.C. § 271(c).

4           194. Facebook knew of the '104 Patent, or at least should have known of  
5 the '104 Patent, but was willfully blind to its existence. On information and belief,  
6 Facebook has had actual knowledge of the '104 Patent since at least as early as the  
7 filing and/or service of this Complaint.

8           195. Facebook has provided the Accused Products to its customers and, on  
9 information and belief, instructions to use the Accused Products in an infringing  
10 manner while being on notice of (or willfully blind to) the '104 Patent and  
11 Facebook's infringement. Therefore, on information and belief, Facebook knew or  
12 should have known of the '104 Patent and of its own infringing acts, or deliberately  
13 took steps to avoid learning of those facts.

14           196. Facebook knowingly and intentionally encourages and aids at least its  
15 end-user customers to directly infringe the '104 Patent.

16           197. On information and belief, Facebook provides the Accused Products  
17 to customers through various third-party application stores (*e.g.*, the Apple iTunes  
18 App Store) and instructions to end-user customers so that such customers will use  
19 the Accused Products in an infringing manner.

20           198. Facebook's end-user customers directly infringe at least one or more  
21 claims of the '104 Patent by using the Accused Products in their intended manner  
22 to infringe. Facebook induces such infringement by providing the Accused  
23 Products and instructions to enable and facilitate infringement, knowing of, or  
24 being willfully blind to the existence of, the '104 Patent. On information and belief,  
25 Facebook specifically intends that its actions will result in infringement of at least  
26 one or more claims of the '104 Patent, or subjectively believe that their actions will  
27 result in infringement of the '104 Patent, but took deliberate actions to avoid  
28 learning of those facts, as set forth above.

1 199. Additionally, Facebook contributorily infringes at least one or more  
2 claims of the '104 Patent by providing the Accused Products and/or software  
3 components thereof, that embody a material part of the claimed inventions of the  
4 '104 Patent, that are known by Facebook to be specially made or adapted for use in  
5 an infringing manner, and are not staple articles with substantial non-infringing  
6 uses. The Accused Products are specially designed to infringe at least one or more  
7 claims of the '104 Patent, and their accused components have no substantial non-  
8 infringing uses. In particular, on information and belief, the software modules and  
9 code that implement and perform the infringing functionalities identified above are  
10 specially made and adapted to carry out said functionality and do not have any  
11 substantial non-infringing uses.

12 200. Facebook's infringement of the '104 Patent was and continues to be  
13 willful and deliberate, entitling Corrino to enhanced damages.

14 201. Additional allegations regarding Facebook's knowledge of the '104  
15 Patent and willful infringement will likely have evidentiary support after a  
16 reasonable opportunity for discovery.

17 202. Facebook's infringement of the '104 Patent is exceptional and entitles  
18 Corrino to attorneys' fees and costs incurred in prosecuting this action under 35  
19 U.S.C. § 285.

20 203. Corrino is in compliance with any applicable marking and/or notice  
21 provisions of 35 U.S.C. § 287 with respect to the '104 Patent.

22 204. Corrino is entitled to recover from Facebook all damages that Corrino  
23 has sustained as a result of Facebook's infringement of the '104 Patent, including,  
24 without limitation, a reasonable royalty.

25 **COUNT VIII: INFRINGEMENT OF U.S. PATENT NO. 9,262,533**

26 205. Corrino incorporates by reference and re-alleges all the foregoing  
27 paragraphs of this Complaint as if fully set forth herein.

28 206. Defendant Facebook has infringed and is infringing, either literally or

1 under the doctrine of equivalents, the '533 Patent in violation of 35 U.S.C. § 271 *et*  
2 *seq.*, directly and/or indirectly, by making, using, offering for sale, or selling in the  
3 United States, and/or importing into the United States without authority or license,  
4 products and services that engage in a contextual-based technique for processing  
5 search requests across data networks, including the Facebook www.facebook.com  
6 website and mobile application, that infringe at least one or more claims of the '533  
7 Patent.

8 207. As just one non-limiting example, set forth below (with claim  
9 language in bold and italics) is a description of infringement of exemplary claim 11  
10 of the '533 Patent in connection with the Accused Products. This description is  
11 based on publicly available information. Corrino reserves the right to modify this  
12 description, including, for example, on the basis of information about the Accused  
13 Products that it obtains during discovery.

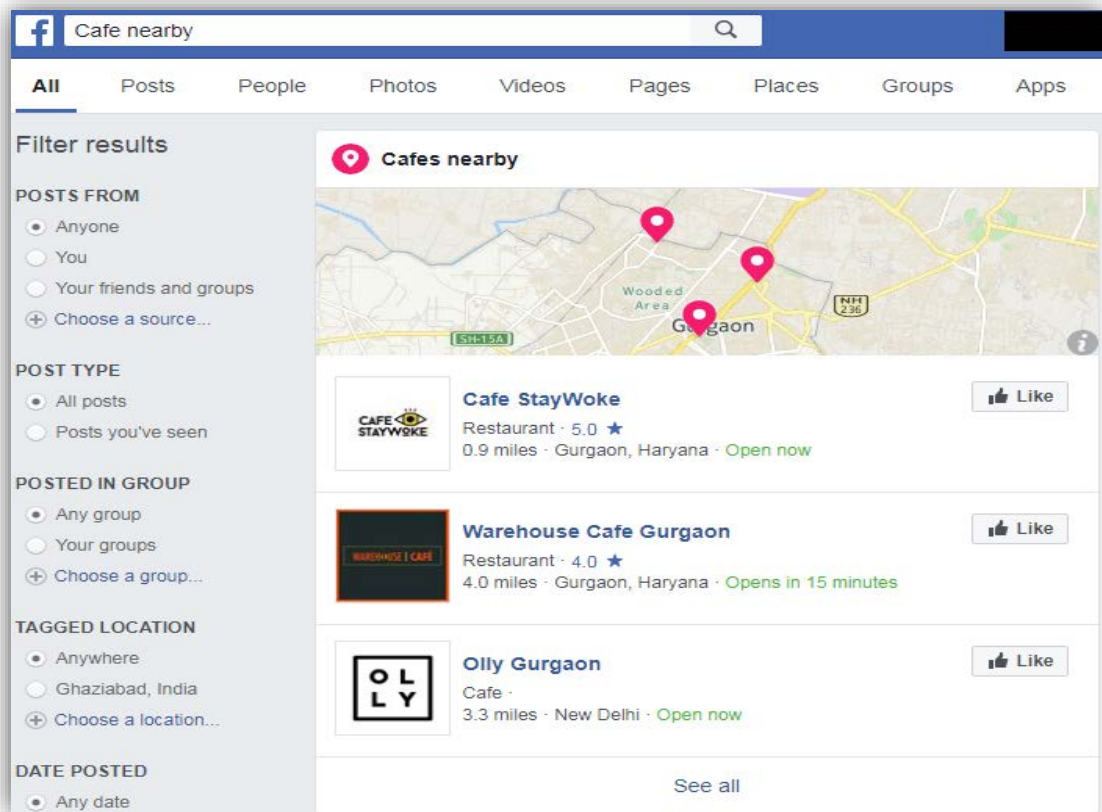
14 ***11(a): A method for facilitating data searching over a network, the method***  
15 ***comprising:***—As noted above, Facebook is a social networking platform that  
16 provides services by which Facebook users can submit search requests  
17 through Facebook's website and Facebook's website responds by providing  
18 search results responsive to the request. Facebook's website and its servers,  
19 either alone or in combination, practice the method of claim 11 when  
20 receiving certain search requests and responsively providing results, as set  
21 forth, in one example, below.

22 ***11(b): receiving a search request from a user device via the network,***  
23 ***wherein the search request includes information related to the user***  
24 ***device***—Facebook's website and its servers, either alone or in combination,  
25 receive a search request, including information related to the user device,  
26 from a user device via the network.

27 For example, Facebook's website provides a search feature allowing  
28 users to submit a search query. Facebook explains that “[t]o search for

1 something: 1. Click the search bar at the top of any page on Facebook. 2.  
 2 Enter what you're looking for and choose from the results.”  
 3 <https://www.facebook.com/help/103764609715185>. Facebook further  
 4 explains that “[y]ou can search for people, posts, photos, videos, places,  
 5 Pages, Groups, apps, links and events on Facebook. Start searching with  
 6 keywords (example: Caroline wedding) and you'll see a list of results that  
 7 you can filter . . . You can also combine phrases together, or add things like  
 8 locations, times, likes and interests to get more specific (ex: friends who live  
 9 in San Francisco).” <https://www.facebook.com/help/400002116752060>.

10 A user may operate a user device (*e.g.*, a computer, mobile phone, or  
 11 tablet) to navigate to the Facebook website and enter a search query (*e.g.*,  
 12 “Cafe nearby”), as depicted in the screenshot below.

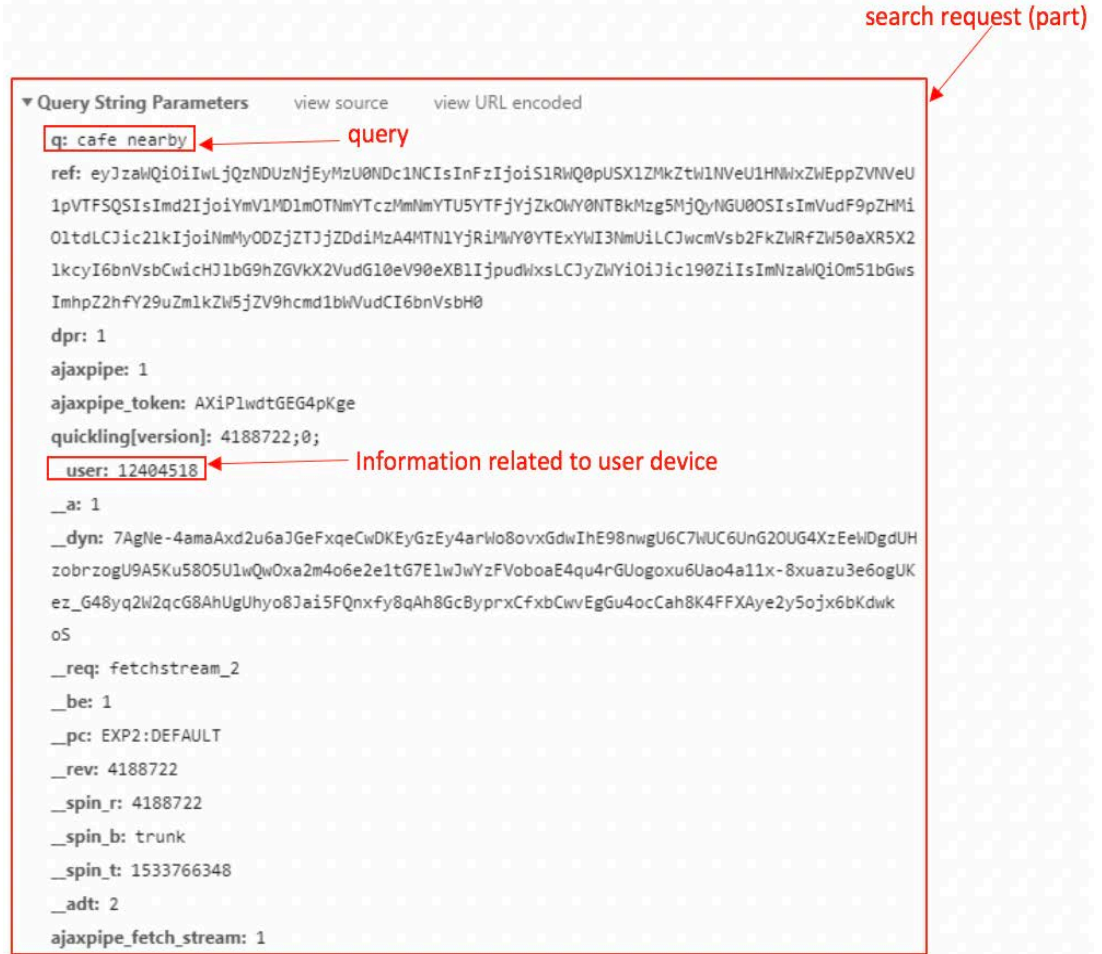


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 27 When the user enters the search query, Facebook's website receives  
 28 the query over the Internet in the form of a search request. The search request



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includes, *inter alia*, information related to the user device (e.g., user id, client id, browser information, etc.), as depicted in the screenshot below.



11(c): processing the search request by identifying a context chain related to the user device based on the information and by using the context chain to obtain a search result in response to the search request, wherein the context chain includes a plurality of contexts that are publishing spaces in which interpretation of the search request takes place by using content published to the publishing spaces by publishers of different viewpoints—

Facebook’s website processes the search request by identifying a context chain related to the user device based on the information, and by using the context chain to obtain a search result in response to the search request, wherein the context chain includes a plurality of contexts that are publishing

1 spaces in which interpretation of the search request takes place by using  
2 content published to the publishing spaces by publishers of different  
3 viewpoints.

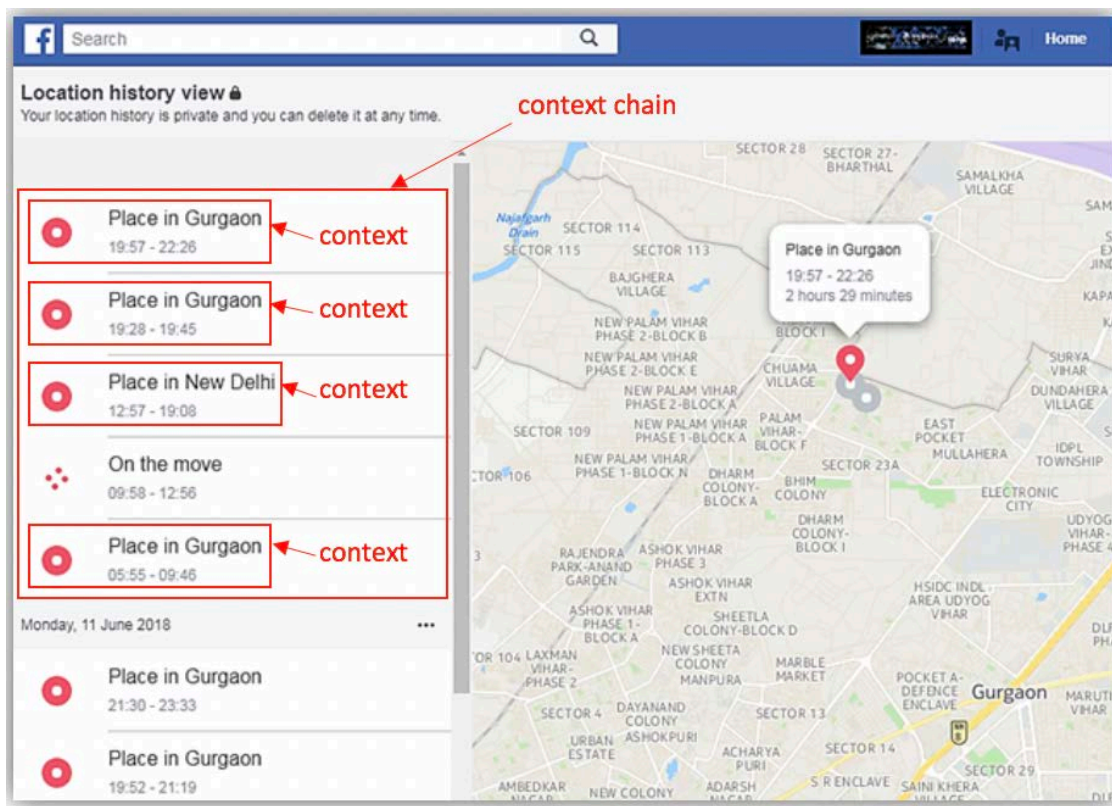
4 For example, Facebook provides a Location History feature that stores  
5 the location history of the user's device. In particular, Facebook explains  
6 that:

7 Location History is a setting that allows Facebook to build  
8 a history of precise locations received through Location  
9 Services on your device. When Location History is on,  
10 Facebook will periodically add your current precise location  
11 to your Location History, even if you leave the app . . . .  
12 When Location History is turned off, Facebook will stop  
13 adding new information to your Location History which you  
14 can view in your Location Settings. Facebook may still  
15 receive your most recent precise location so that you can,  
16 for example, post content that's tagged with your location .  
17 . . . Location History helps you explore what's around you,  
18 get more relevant ads, and helps improve Facebook.

19 [https://www.facebook.com/location\\_history/info/](https://www.facebook.com/location_history/info/).

20 Thus, in one example, when Facebook's website receives a search request  
21 from the user's device, it processes the search request by identifying a  
22 context chain related to the user device (*e.g.*, the Location History for the  
23 user's device) based on information that was included with the search request  
24 (*e.g.*, user id, client id, browser information, etc.). For example, Facebook's  
25 website receives the information included with the search request (*e.g.*, user  
26 id, client id, browser information, etc.) and uses it to retrieve from storage a  
27 context chain related to the user device (*e.g.*, the Location History for the  
28 user's device).

Facebook's website uses the context chain to obtain a search result in  
response to the search request. An example context chain is depicted in the  
screenshot below.



14 In particular, Facebook's website returns search results that are associated  
15 with the contexts of the context chain.

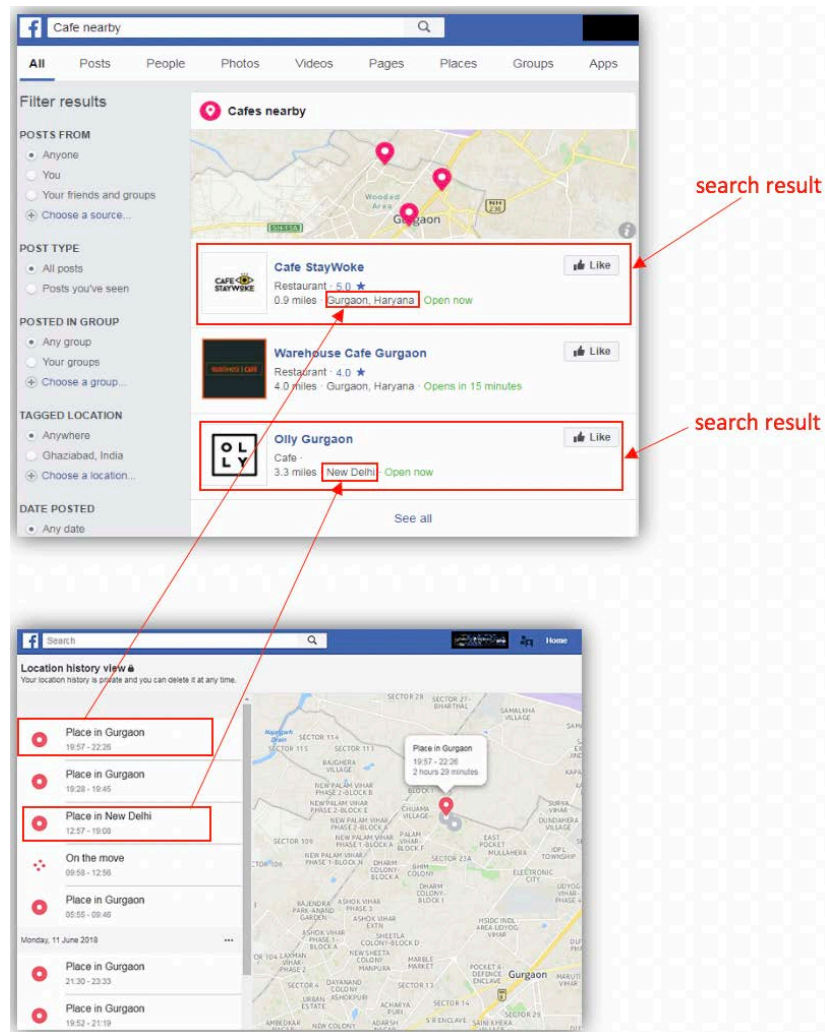
16 For instance, Facebook explains that:

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- 18 • You see unique search results based on:
  - 19 • Your connections to people, places, things.
  - 20 • What you're able to see on Facebook, including what your friends share with you.
  - 21 • Your friends, connections and interests, which affect the order of your results.
  - 22 • People's privacy settings. For example, if you search
  - 23 "photo Paris," you may see photos your friends took and
  - 24 shared with you first.

25 <https://www.facebook.com/help/113625708804960>.

26 In the example depicted below, Facebook's website processes the  
27 search request (which includes the query for "Café nearby") by obtaining,  
28 *inter alia*, two search results: one result for "Cafe StayWoke" and one for

1 “Olly Gurgaon.” In particular, the “Cafe StayWoke” search result is  
 2 associated with the “Gurgaon” context, and the “Olly Gurgaon” search result  
 3 is associated with the “New Delhi” context. As such, Facebook’s website  
 4 used the context chain to obtain a search result in response to the search  
 5 request by, for instance, using the “Gurgaon” context in the context chain to  
 6 obtain the “Cafe StayWoke” search result, and using the “New Delhi”  
 7 context to obtain the “Olly Gurgaon” search result.



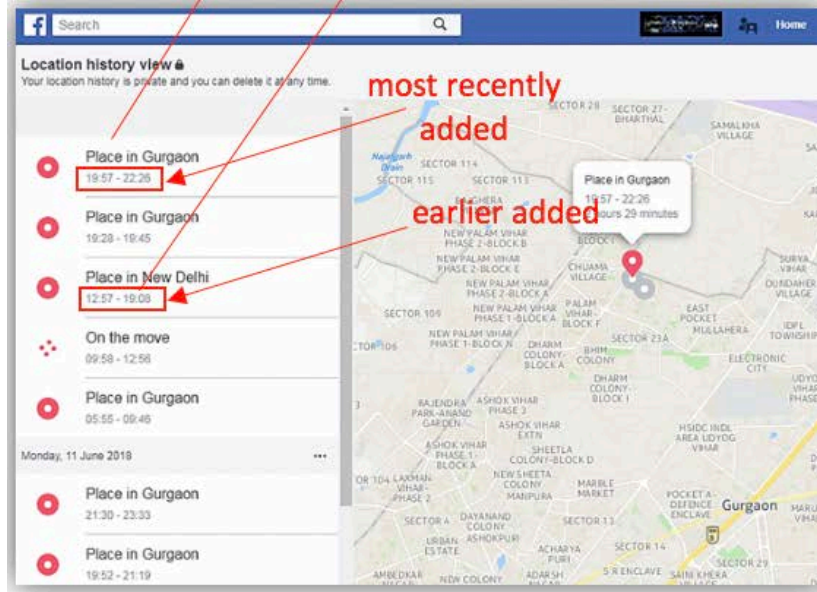
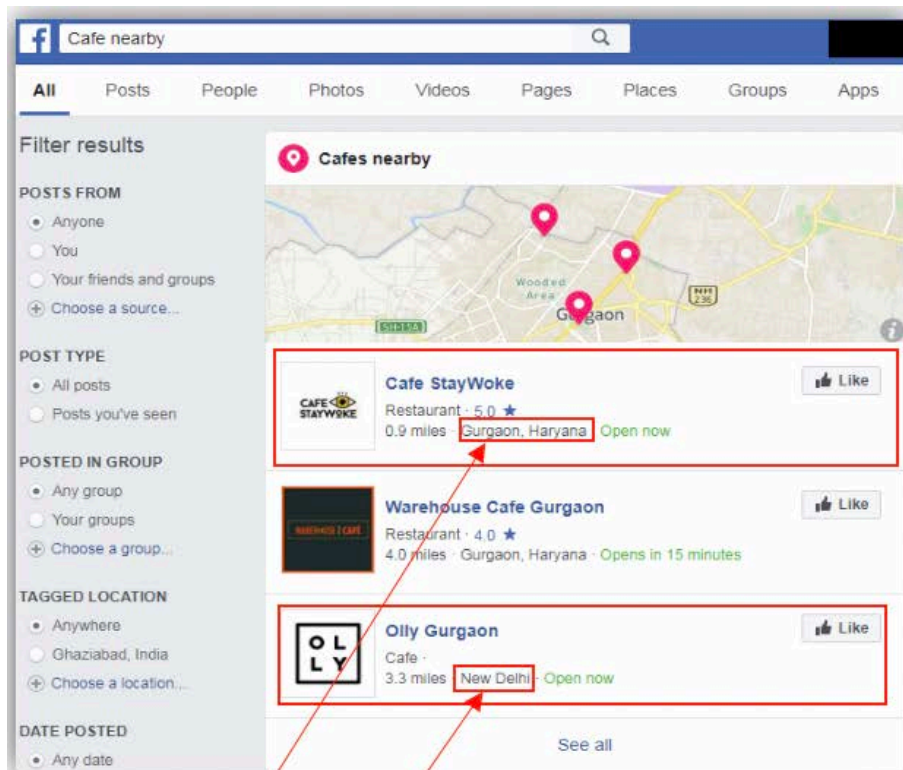
As further depicted above, the context chain includes a plurality of contexts (e.g., the “Gurgaon” context and the “New Delhi” context) that are publishing spaces. For example, Facebook provides a feature through which users can publicly post content (e.g., a status update, photo, video, group,

1 page, etc.) and associate that content with a location (e.g., a city). Facebook  
2 explains that “[y]ou can add your location to a post to tell people you’re at a  
3 specific place, like your home or a restaurant. To add your location to a new  
4 post: 1. Begin writing your post. 2. Click to add your location. 3. Click  
5 Post.” <https://www.facebook.com/help/115298751894487>. In Facebook’s  
6 system, locations are publishing spaces because users can associate content  
7 with a location.

8 Further, Facebook’s website interprets the search request by using  
9 content published to the publishing spaces by publishers of different  
10 viewpoints. In the example above, Facebook retrieved the “Cafe StayWoke”  
11 search result by referring to content (e.g., the name and/or description of the  
12 place) published by someone associated with the “Cafe StayWoke”  
13 restaurant. Likewise, Facebook retrieved the “Olly Gurgaon” search result  
14 by referring to content (e.g., the name and/or description of the place)  
15 published by someone associated with the “Olly Gurgaon” Cafe. This  
16 content was published by publishers associated with those individual  
17 restaurants (e.g., the individuals respectively associated with the “Cafe  
18 StayWoke” restaurant and the “Olly Gurgaon” Cafe), and as such, those  
19 publishers were of different viewpoints.

20 *11(d): wherein the processing the search request includes: examining*  
21 *contexts in the context chain in a last-in-first-out order in which the most*  
22 *recently added contexts to the context chain are examined before earlier*  
23 *added contexts, and wherein at least one context of the context chain is*  
24 *independently searchable with respect to other contexts of the context*  
25 *chain; and*—Facebook’s website processes the search request by examining  
26 contexts in the context chain in a last-in-first-out order in which the most  
27 recently added contexts to the context chain are examined before earlier  
28 added contexts, and wherein at least one context of the context chain is

1 independently searchable with respect to other contexts of the context chain.  
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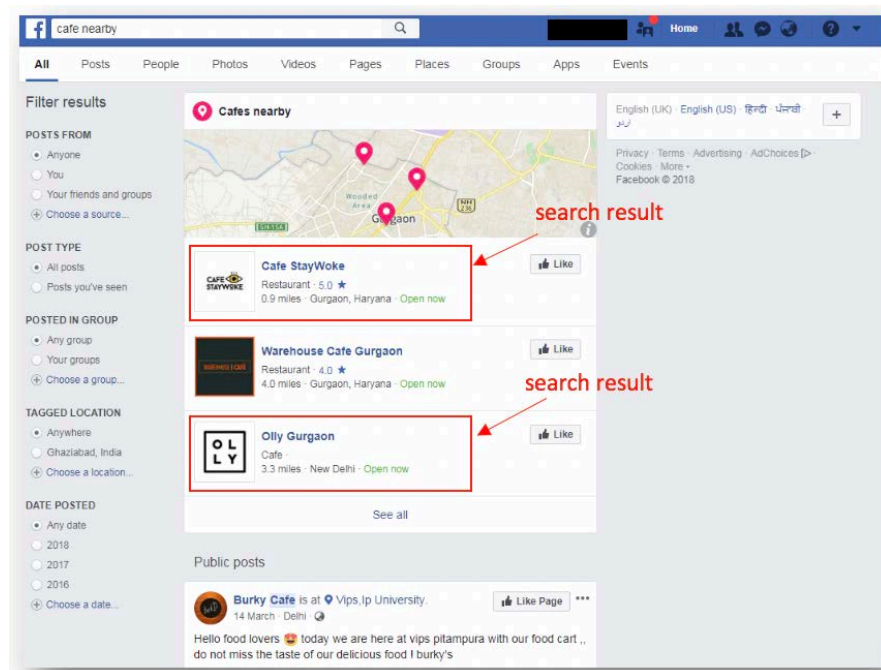


For instance, Facebook’s website examines contexts in the context chain in a last-in-first-out order in which the most recently added contexts to the context chain are examined before earlier added contexts by retrieving

1 and/or displaying search results in reverse chronological order. For example,  
 2 as depicted below, the “Gurgaon” context was most recently added to the  
 3 context chain, and Facebook’s website retrieved and/or displayed a search  
 4 result for the “Gurgaon” context (e.g., the “Cafe StayWoke” result) at the top  
 5 of the three search results. The “New Delhi” context was added earlier to the  
 6 context chain, and Facebook’s website retrieved and/or displayed a search  
 7 result for the “New Delhi” context (e.g., the “Olly Gurgaon” result) at the  
 8 bottom of the three search results.

9 Moreover, Facebook’s website provides search results for each of the  
 10 “Gurgaon” and the “New Delhi” contexts. And a user can search for places  
 11 located in just Gurgaon or just New Delhi. Accordingly, at least one context  
 12 of the context chain is independently searchable with respect to other  
 13 contexts of the context chain.

14 ***11(e): providing the search result to the user device.***—Facebook responds  
 15 to the user entered search queries by “providing” or displaying the  
 16 corresponding search result to the user device on Facebook’s website, as  
 17 depicted.



1           208. Additionally, Defendant Facebook has been, and currently is, an active  
2 inducer of infringement of the '533 Patent under 35 U.S.C. § 271(b) and  
3 contributory infringer of the '533 Patent under 35 U.S.C. § 271(c).

4           209. Facebook knew of the '533 Patent, or at least should have known of  
5 the '533 Patent, but was willfully blind to its existence. On information and belief,  
6 Facebook has had actual knowledge of the '533 Patent since at least as early as the  
7 filing and/or service of this Complaint.

8           210. Facebook has provided the Accused Products to its customers and, on  
9 information and belief, instructions to use the Accused Products in an infringing  
10 manner while being on notice of (or willfully blind to) the '533 Patent and  
11 Facebook's infringement. Therefore, on information and belief, Facebook knew or  
12 should have known of the '533 Patent and of its own infringing acts, or deliberately  
13 took steps to avoid learning of those facts.

14           211. Facebook knowingly and intentionally encourages and aids at least its  
15 end-user customers to directly infringe the '533 Patent.

16           212. On information and belief, Facebook provides the Accused Products  
17 to customers through various third-party application stores (*e.g.*, the Apple iTunes  
18 App Store) and instructions to end-user customers so that such customers will use  
19 the Accused Products in an infringing manner.

20           213. Facebook's end-user customers directly infringe at least one or more  
21 claims of the '533 Patent by using the Accused Products in their intended manner  
22 to infringe. Facebook induces such infringement by providing the Accused  
23 Products and instructions to enable and facilitate infringement, knowing of, or  
24 being willfully blind to the existence of, the '533 Patent. On information and belief,  
25 Facebook specifically intends that its actions will result in infringement of at least  
26 one or more claims of the '533 Patent, or subjectively believe that their actions will  
27 result in infringement of the '533 Patent, but took deliberate actions to avoid  
28 learning of those facts, as set forth above.



1           214. Additionally, Facebook contributorily infringes at least one or more  
2 claims of the '533 Patent by providing the Accused Products and/or software  
3 components thereof, that embody a material part of the claimed inventions of the  
4 '533 Patent, that are known by Facebook to be specially made or adapted for use in  
5 an infringing manner, and are not staple articles with substantial non-infringing  
6 uses. The Accused Products are specially designed to infringe at least one or more  
7 claims of the '533 Patent, and their accused components have no substantial non-  
8 infringing uses. In particular, on information and belief, the software modules and  
9 code that implement and perform the infringing functionalities identified above are  
10 specially made and adapted to carry out said functionality and do not have any  
11 substantial non-infringing uses.

12           215. Facebook's infringement of the '533 Patent was and continues to be  
13 willful and deliberate, entitling Corrino to enhanced damages.

14           216. Additional allegations regarding Facebook's knowledge of the '533  
15 Patent and willful infringement will likely have evidentiary support after a  
16 reasonable opportunity for discovery.

17           217. Facebook's infringement of the '533 Patent is exceptional and entitles  
18 Corrino to attorneys' fees and costs incurred in prosecuting this action under 35  
19 U.S.C. § 285.

20           218. Corrino is in compliance with any applicable marking and/or notice  
21 provisions of 35 U.S.C. § 287 with respect to the '533 Patent.

22           219. Corrino is entitled to recover from Facebook all damages that Corrino  
23 has sustained as a result of Facebook's infringement of the '533 Patent, including,  
24 without limitation, a reasonable royalty.

25           **COUNT IX: INFRINGEMENT OF U.S. PATENT NO. 9,767,164**

26           220. Corrino incorporates by reference and re-alleges all the foregoing  
27 paragraphs of this Complaint as if fully set forth herein.

28           221. Defendant Facebook has infringed and is infringing, either literally or

1 under the doctrine of equivalents, the '164 Patent in violation of 35 U.S.C. § 271 *et*  
2 *seq.*, directly and/or indirectly, by making, using, offering for sale, or selling in the  
3 United States, and/or importing into the United States without authority or license,  
4 products and services that engage in a contextual-based technique for processing  
5 search requests across data networks, including the Facebook [www.facebook.com](http://www.facebook.com)  
6 website and mobile application, that infringe at least one or more claims of the '164  
7 Patent.

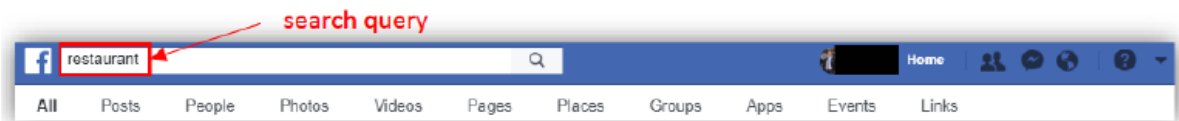
8 222. As just one non-limiting example, set forth below (with claim  
9 language in bold and italics) is a description of infringement of exemplary claim 1  
10 of the '164 Patent in connection with the Accused Products. This description is  
11 based on publicly available information. Corrino reserves the right to modify this  
12 description, including, for example, on the basis of information about the Accused  
13 Products that it obtains during discovery.

14 ***1(a): A method implemented by a computer including a processor and a***  
15 ***memory, the method comprising***— As noted above, Facebook is a social  
16 networking platform that provides services by which Facebook users can  
17 submit search requests through Facebook's website and Facebook's website  
18 responds by providing search results responsive to the request. Facebook's  
19 website and its servers, either alone or in combination, practice the method  
20 of claim 1 when receiving certain search requests and responsively providing  
21 results, as set forth, in one example, below.

22 ***1(b): receiving a user communication***—Facebook's website receives a user  
23 communication.

24 For example, Facebook's website provides a search feature allowing  
25 users to submit a search query. Facebook explains that "[t]o search for  
26 something: 1. Click the search bar at the top of any page on Facebook. 2.  
27 Enter what you're looking for and choose from the results."  
28 <https://www.facebook.com/help/103764609715185>. Facebook further

1 explains that “[y]ou can search for people, posts, photos, videos, places,  
 2 Pages, Groups, apps, links and events on Facebook. Start searching with  
 3 keywords (example: Caroline wedding) and you’ll see a list of results that  
 4 you can filter . . . You can also combine phrases together, or add things like  
 5 locations, times, likes and interests to get more specific (ex: friends who live  
 6 in San Francisco).” <https://www.facebook.com/help/400002116752060>. A  
 7 user may operate a device (e.g., a computer, mobile phone, or tablet) to  
 8 navigate to the Facebook website and submit a search query (e.g.,  
 9 “restaurant”), as depicted in the screenshot below. Facebook’s website  
 10 receives the search query as a user communication.



14 *I(c): using first context information associated with a user to determine a*  
 15 *plurality of responsive actions that satisfy the user communication from*  
 16 *second context information comprising a plurality of responsive actions*  
 17 *that are distributed in a plurality of contexts and respective acceptance*  
 18 *criteria for each respective responsive action of the responsive actions*  
 19 *distributed in the contexts to determine relevance to the user*  
 20 *communication*—Facebook’s website uses first context information  
 21 associated with the user to determine a plurality of responsive actions that  
 22 satisfy the user communication from second context information comprising  
 23 a plurality of responsive actions that are distributed in a plurality of contexts  
 24 and respective acceptance criteria for each respective responsive action of  
 25 the responsive actions distributed in the contexts to determine relevance to  
 26 the user communication. For instance, Facebook explains that:

27 You see unique search results based on:

- 28
- Your connections to people, places, things.

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- What you're able to see on Facebook, including what your friends share with you.
- Your friends, connections and interests, which affect the order of your results.
- People's privacy settings. For example, if you search "photo Paris," you may see photos your friends took and shared with you first.

<https://www.facebook.com/help/113625708804960>.

Prior to displaying search results responsive to receiving the user communication, Facebook's website retrieves first context information associated with the user, which includes but is not limited to:

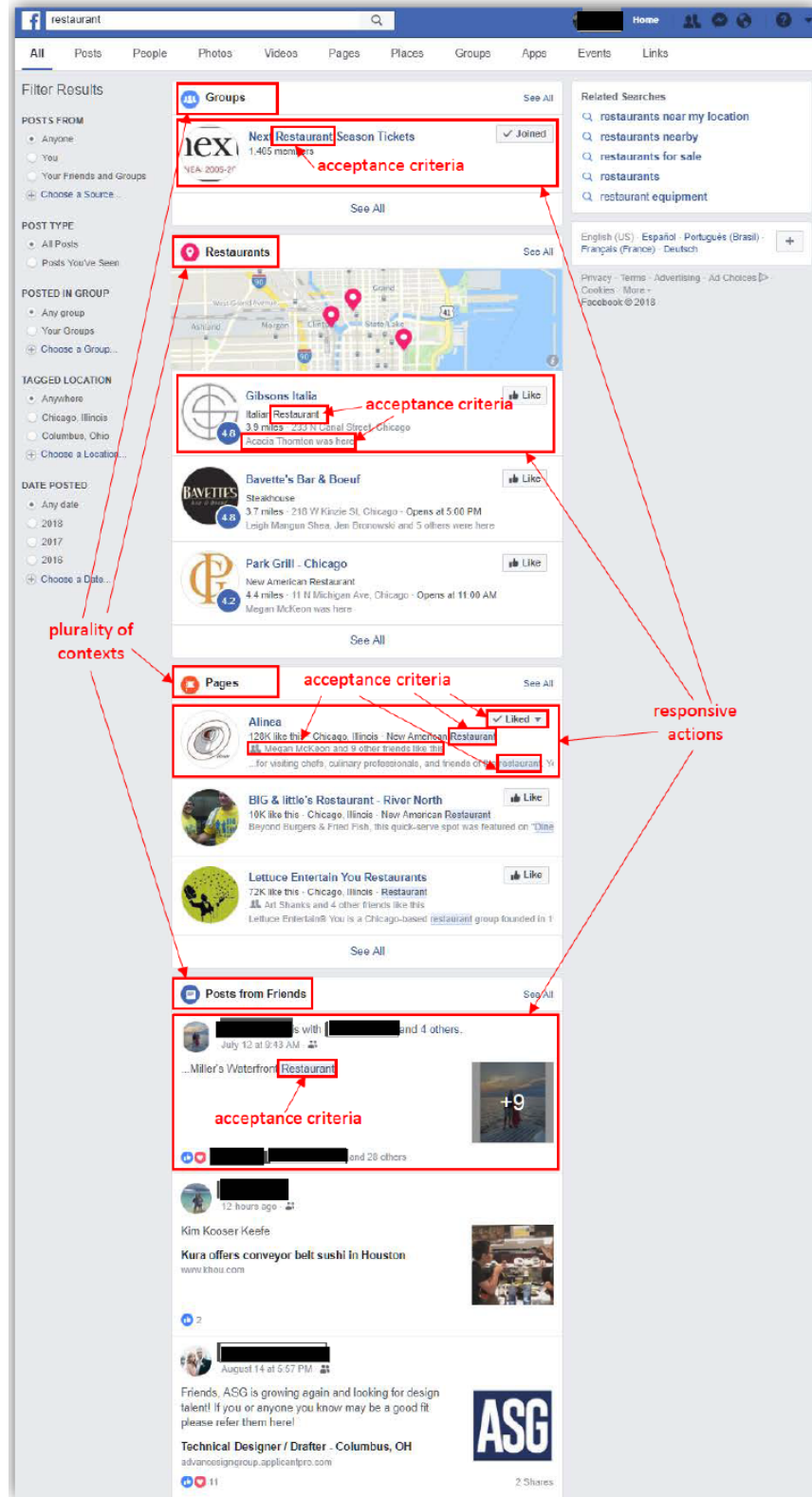
- information indicating groups that the user has joined;
- information indicating pages that the user has liked;
- information indicating other users with whom the user is friends.

Facebook's website then uses the first context information to narrow down the universe of potential search results that it provides to the user.

In the example depicted below, Facebook determines a plurality of responsive actions (*e.g.*, the decision to display a particular text associated with the individual search results) that satisfy the user communication when it determines which search results to provide to the user that are responsive to the user communication. These responsive actions (*e.g.*, displaying text associated with the individual search results) are determined from second context information that comprises a plurality of responsive actions (*e.g.*, displaying text associated with the individual search results) distributed in a plurality of contexts (*e.g.*, a "groups" context, a "places" context, a "pages" context, a "friends" context, etc.).

Further, these responsive actions have respective acceptance criteria, which Facebook's website uses to determine the relevance of the responsive action to the user communication.

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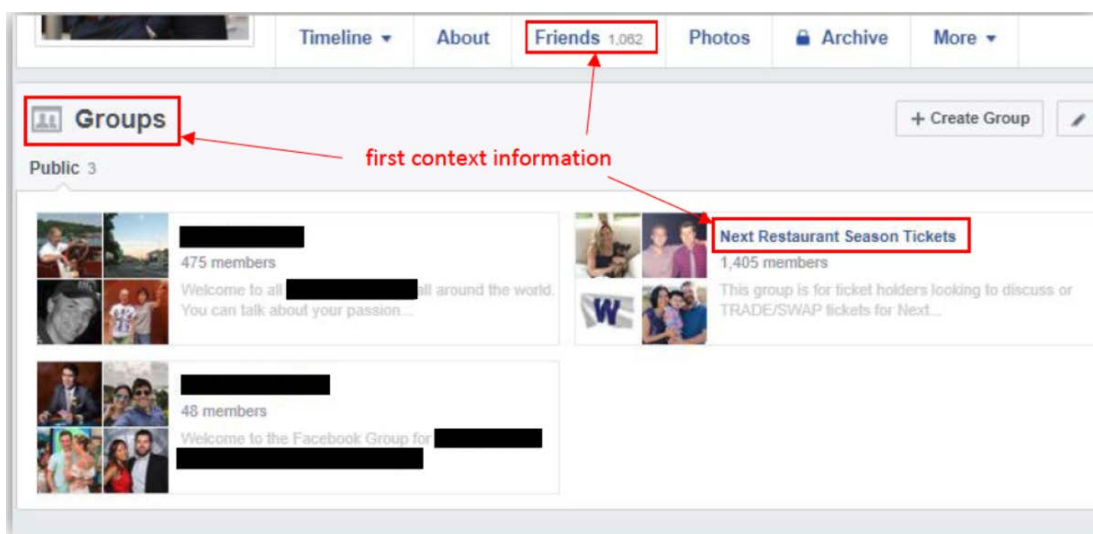


In the example depicted above, the acceptance criteria includes:

- information indicating groups liked by the user;

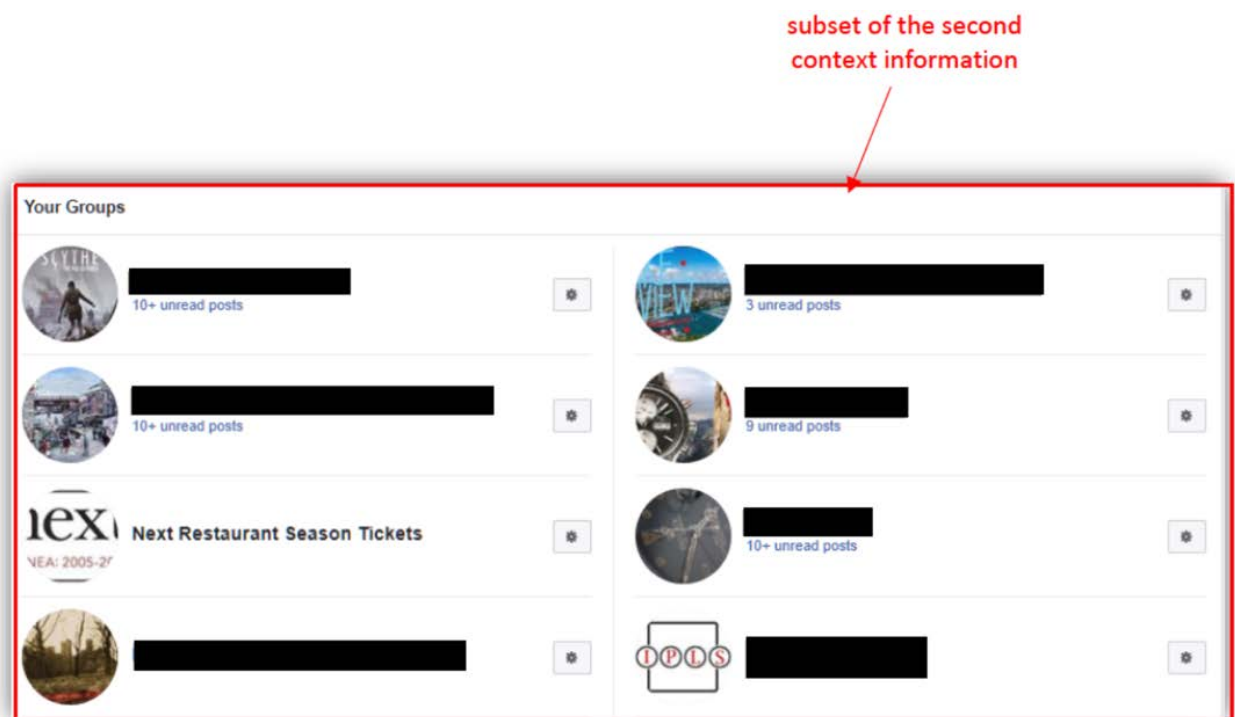
- information indicating restaurants previously visited by friends of the user;
- information indicating pages liked by the user that are associated with the search query; and
- information indicating posts from friends that are associated with the search query.

*1(d): wherein said using the first context information includes: prior to processing user communications from the user relative to the second context information, retrieving the first context information associated with the user from storage*—Facebook’s website retrieves from storage the first context information associated with the user prior to processing user communications from the user relative to the second context information. Facebook’s website retrieves the first context information (e.g., information indicating the groups that the user has joined, information indicating the pages that the user has liked, information indicating the other users with whom the user is friends, etc.) from storage before processing the user communications. For instance, as depicted below, when a user logs in, but before sending any user communications (i.e., search queries) through Facebook’s website, Facebook’s website retrieves, inter alia, the user’s friend list and the groups the user has joined.



1 *1(e): processing the first context information to identify a subset of the*  
 2 *second context information, wherein the first context information*  
 3 *comprises user-selected information to assist with satisfying the user*  
 4 *communications from the user relative to the second context information—*

5 Facebook's website processes the first context information to identify a  
 6 subset of the second context information, wherein the first context  
 7 information comprises user-selected information to assist with satisfying the  
 8 user communications from the user relative to the second context  
 9 information. For instance, Facebook's website processes first context  
 10 information (e.g., information indicating the other users with whom the user  
 11 is friends) to identify a subset of the second context information (e.g.,  
 12 information associated with posts from friends). As another example,  
 13 depicted below, Facebook's website processes the first context information



26 (e.g., information indicating the groups that the user has joined) to identify a  
 27 subset of the second context information (e.g., information associated with  
 28 the groups the user has joined).

1           The first context information in the examples described and/or  
2 depicted above is user-selected information used to assist with satisfying the  
3 user communications from the user relative to the second context  
4 information. For instance, the information indicating the other users with  
5 whom the user is friends is user-selected information because, at some point  
6 prior to sending the user communication, the user selected to become friends  
7 with those other users. Likewise, at some point prior to sending the user  
8 communication, the user selected to join the “Next Restaurant Season  
9 Tickets” Group. Moreover, Facebook explains that “[y]ou can search for  
10 people, posts, photos, videos, places, Pages, Groups, apps, links and events  
11 on Facebook. Start searching with keywords (example: Caroline wedding)  
12 and you’ll see a list of results that you can filter . . . You can also combine  
13 phrases together, or add things like locations, times, likes and interests to get  
14 more specific (ex: friends who live in San Francisco).” <https://www.facebook.com/help/400002116752060>. Accordingly, information indicating the  
15 other users with whom the user is friends and/or information indicating that  
16 the user has joined a particular Group is user-selected information used to  
17 assist with satisfying the user communications from the user relative to the  
18 second context information.  
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20 ***1(f): initiating a determination of the responsive actions that satisfy the***  
21 ***user communication in the subset***—Facebook’s website initiates a  
22 determination of the responsive actions that satisfy the user communication  
23 in the subset. For instance, from among the universe of posts by the user’s  
24 friends, Facebook’s website initiates a determination of the responsive  
25 actions (e.g., displaying text associated with the individual search results)  
26 that satisfy the user communication. Indeed, Facebook explains that:

27           You see unique search results based on:

- 28           • Your connections to people, places, things.



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- What you're able to see on Facebook, including what your friends share with you.
- Your friends, connections and interests, which affect the order of your results.
- People's privacy settings. For example, if you search "photo Paris," you may see photos your friends took and shared with you first.

<https://www.facebook.com/help/113625708804960>.

Facebook initiates this determination by preparing to determine, from among all posts by the user's friends, which posts satisfy the user communication (*e.g.*, the search query for "restaurant").

***I(g): evaluating the respective acceptance criteria from the subset relative to the user communication to determine whether the respective responsive action from the subset satisfies the user communication***—Facebook's website evaluates the respective acceptance criteria from the subset relative to the user communication to determine whether the respective responsive action from the subset satisfies the user communication. For example, Facebook compares text associated with posts by the user's friends to the user communication (*e.g.*, the query for "restaurant"). By doing so, Facebook determines whether the respective responsive action (*e.g.*, displaying text associated with the individual search results) satisfies the user communication.

In the example depicted below, Facebook evaluated the acceptance criteria (*i.e.*, the "Miller's Waterfront Restaurant") associated with the first post and determined that a respective responsive action (*e.g.*, displaying text associated with the post) satisfied the user communication.

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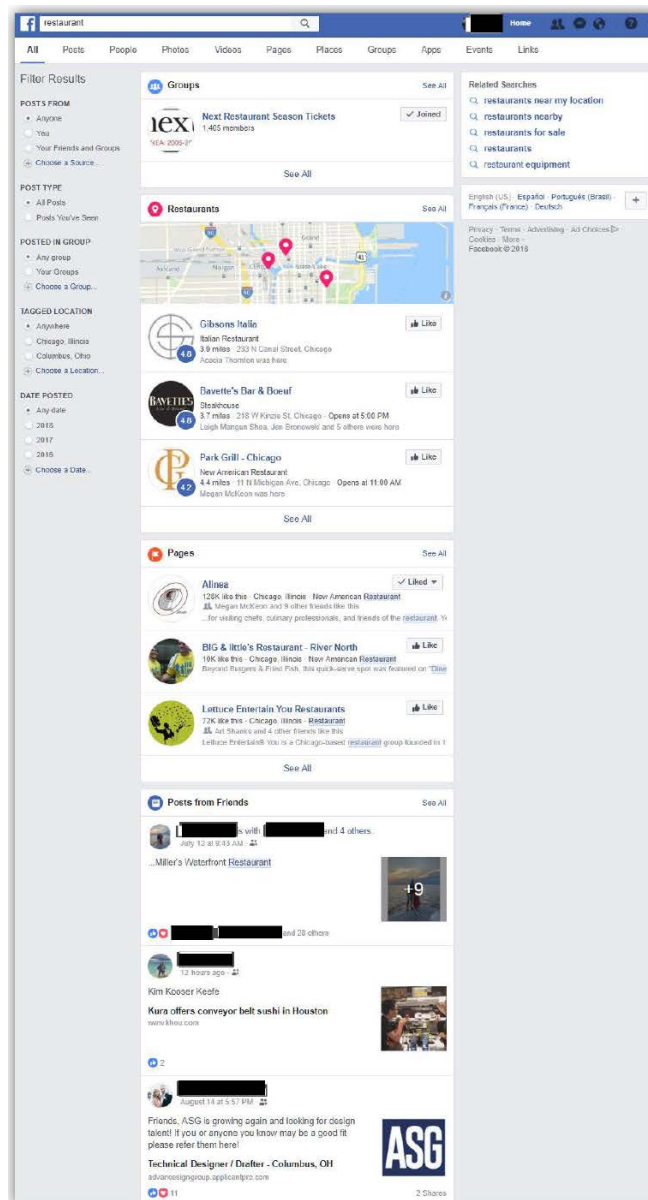
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The screenshot shows a Facebook search for "restaurant". The left sidebar contains filter options for "Filter Results", "POSTS FROM", "POST TYPE", "POSTED IN GROUP", "TAGGED LOCATION", and "DATE POSTED". The main content area is divided into sections: "Groups", "Restaurants", "Pages", and "Posts from Friends".

- Groups:** The first result is "Next Restaurant Season Tickets" with 1,405 members and a "Joined" button. A red box highlights the word "Restaurant" and the text "acceptance criteria" with an arrow pointing to it.
- Restaurants:** A map shows several restaurant locations. Below the map are listings for "Gibsons Italia", "Bavette's Bar & Boeuf", and "Park Grill - Chicago".
- Pages:** Listings include "Alinea", "BIG & little's Restaurant - River North", and "Lettuce Entertain You Restaurants".
- Posts from Friends:** The first post is from a user with a profile picture, dated July 12 at 9:43 AM. It says "... Miller's Waterfront Restaurant" and has a red box around the word "Restaurant" with an arrow pointing to "acceptance criteria". Below it is a post from "Kim Kooser Keefe" about "Kura offers conveyor belt sushi in Houston" and another post from "ASG" looking for a "Technical Designer / Drafter - Columbus, OH".

On the right side, there is a "Related Searches" section with suggestions like "restaurants near my location" and "restaurant equipment". At the bottom right, there is a red text label "responsive actions" with two red arrows pointing to the "Restaurant" text in the "Groups" and "Posts from Friends" sections.

1 ***1(h): applying a ranking rule to the plurality of responsive actions that***  
 2 ***satisfy the user communication***—Facebook applies a ranking rule to the  
 3 plurality of responsive actions that satisfy the user communication. For  
 4 instance, in the example depicted below in which the user communication  
 5 included a search query for “restaurant,” Facebook’s website applied a  
 6 ranking rule to the plurality of responsive actions (e.g., displaying text  
 7 associated with search results) and ranked the responsive action for  
 8 displaying text associated with “Groups” higher than the responsive action  
 9 for displaying text associated with “Posts from Friends.”

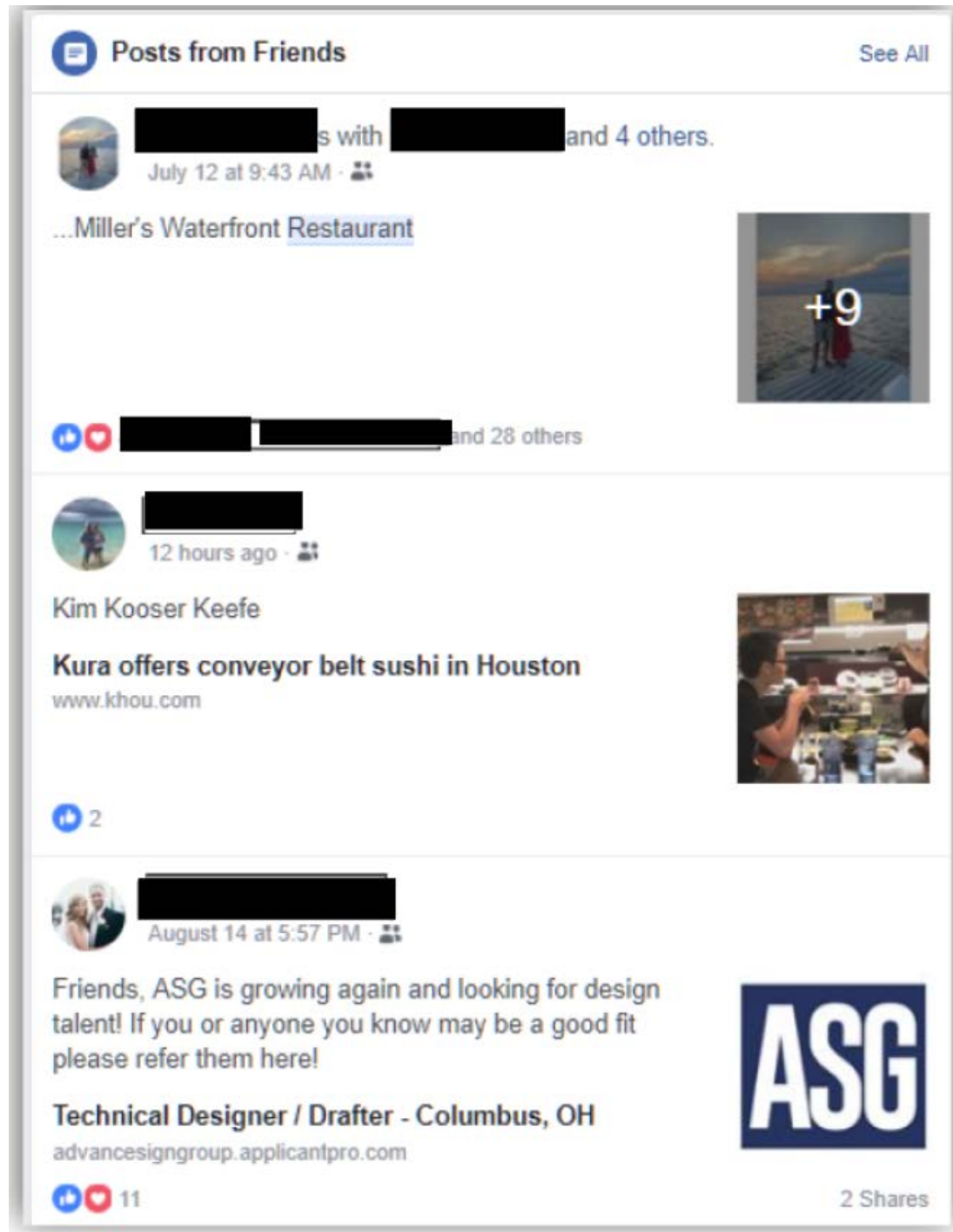


1 In another example, depicted below, in which the user communication  
 2 included a search query for “comedy,” Facebook’s website applied a ranking  
 3 rule to the plurality of responsive actions (e.g., displaying text associated  
 4 with search results) and ranked the responsive action for displaying text  
 5 associated with “Posts from Friends” higher than the responsive action for  
 6 displaying text associated with “Groups.”



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Facebook’s website also applies a ranking rule for the responsive actions within an individual context. For example, Facebook’s website ranked the responsive action for displaying text associated with the “Miller’s Waterfront Restaurant” post higher than the responsive action for displaying text associated with the “conveyor belt sushi” post.



1           ***1(i): subsequent to said applying the ranking rule, executing at least one***  
2           ***of the plurality of responsive actions that satisfy the user communication,***  
3           ***wherein the plurality of responsive actions comprise at least one of***  
4           ***displaying response text, modifying the first context information, creating***  
5           ***an object on a whiteboard space of the user, executing an operation,***  
6           ***running a program, or interacting with one or more systems***—Facebook’s  
7           website, subsequent to said applying the ranking rule, executes at least one  
8           of the plurality of responsive actions that satisfy the user communication,  
9           wherein the plurality of responsive actions comprise at least one of  
10          displaying response text, modifying the first context information, creating an  
11          object on a whiteboard space of the user, executing an operation, running a  
12          program, or interacting with one or more systems. In particular, Facebook’s  
13          website executed the responsive actions for displaying response text  
14          associated with the search results in accordance with the ranking rule  
15          previously applied. In the example depicted below, Facebook’s website  
16          executed the responsive actions of, inter alia, displaying response text for  
17          “Next Restaurant Season Tickets” under the “Groups” context, and  
18          displaying response text for “Miller’s Waterfront Restaurant” under the  
19          “Posts from Friends” context.

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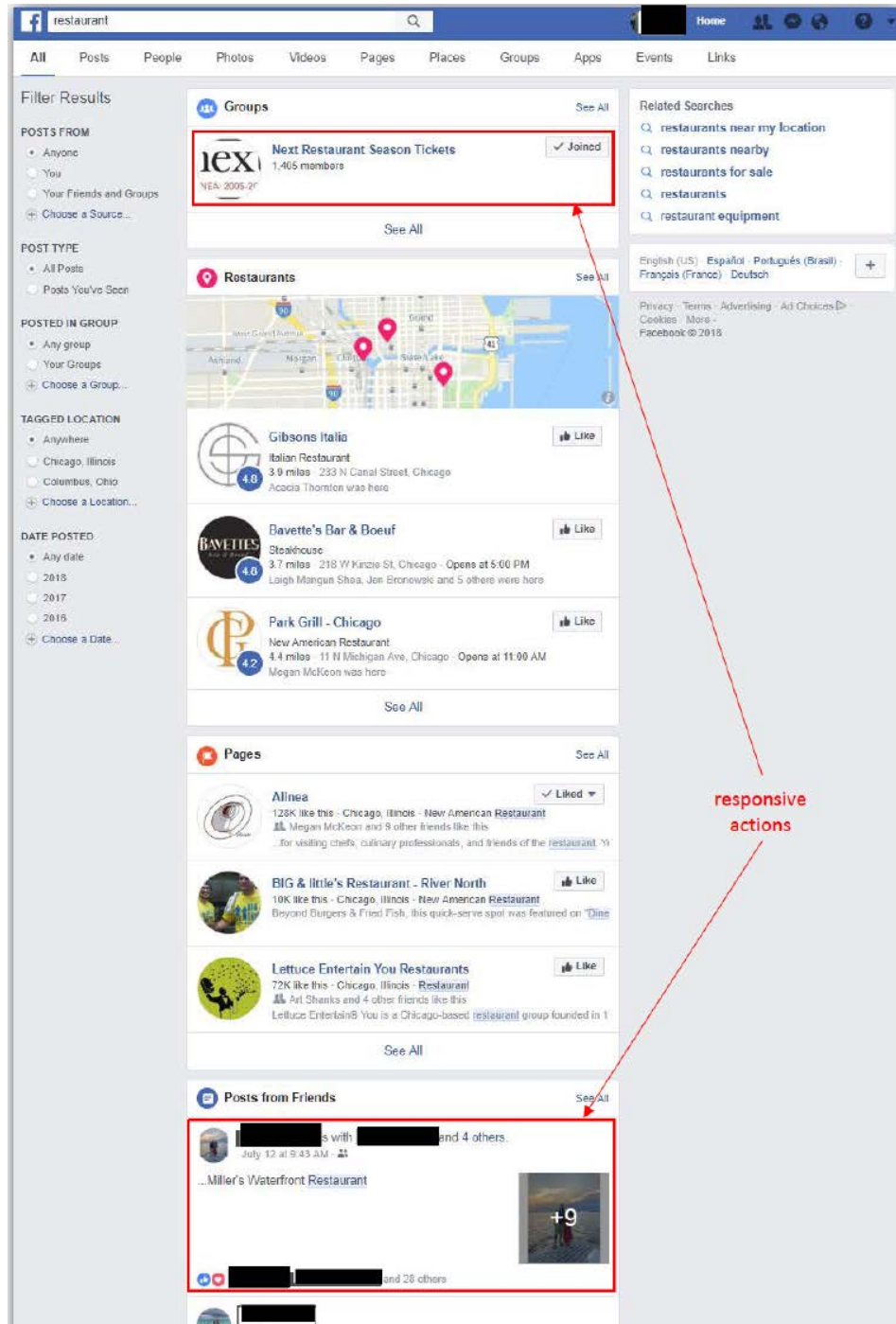
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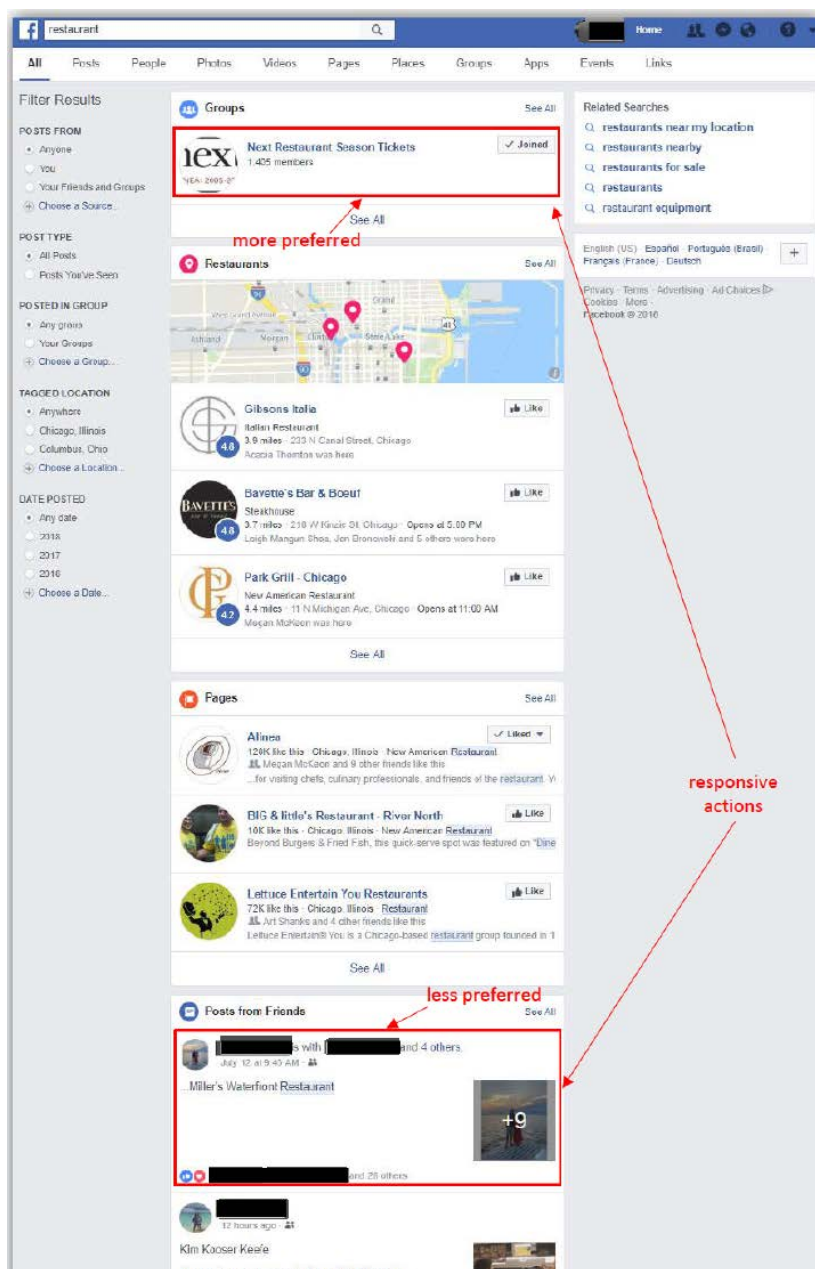
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*1(j): wherein the ranking rule comprises at least one of a most preferred rule, a most personal rule, a most popular rule, or a highest context count rule.*—Facebook’s website applies a ranking rule that includes at least one of a most preferred rule, a most personal rule, a most popular rule, or a highest context count rule. For example, as set forth above, Facebook’s

1 website ranked the responsive action for displaying text associated with  
2 “Groups” higher than the responsive action for displaying text associated  
3 with “Posts from Friends.” Facebook’s website determined that the  
4 responsive action for displaying text associated with “Groups” was more  
5 preferred than the responsive action for displaying text associated with  
6 “Posts from Friends.” As such, Facebook’s website used a most preferred  
7 rule when it applied a ranking rule to the plurality of responsive actions that  
8 satisfy the user communication in this example.





1 In another example, in the “Posts from Friends” context, the “Miller’s  
 2 Waterfront Restaurant” post has 30 reactions (e.g., likes, hearts, etc.),  
 3 whereas the “conveyor belt sushi” post has two reactions. Because Facebook  
 4 ranked the responsive action for displaying text associated with the “Miller’s  
 5 Waterfront Restaurant” post higher than the responsive action for displaying  
 6 text associated with the “conveyor belt sushi” post, Facebook used a most  
 7 popular rule when it applied a ranking rule to the plurality of responsive  
 8 actions that satisfy the user communication in this example.



223. 26 Additionally, Defendant Facebook has been, and currently is, an active  
 27 inducer of infringement of the ‘164 Patent under 35 U.S.C. § 271(b) and  
 28 contributory infringer of the ‘164 Patent under 35 U.S.C. § 271(c).

1           224. Facebook knew of the ‘164 Patent, or at least should have known of  
2 the ‘164 Patent, but was willfully blind to its existence. On information and belief,  
3 Facebook has had actual knowledge of the ‘164 Patent since at least as early as the  
4 filing and/or service of this Complaint.

5           225. Facebook has provided the Accused Products to its customers and, on  
6 information and belief, instructions to use the Accused Products in an infringing  
7 manner while being on notice of (or willfully blind to) the ‘164 Patent and  
8 Facebook’s infringement. Therefore, on information and belief, Facebook knew or  
9 should have known of the ‘164 Patent and of its own infringing acts, or deliberately  
10 took steps to avoid learning of those facts.

11           226. Facebook knowingly and intentionally encourages and aids at least its  
12 end-user customers to directly infringe the ‘164 Patent.

13           227. On information and belief, Facebook provides the Accused Products  
14 to customers through various third-party application stores (*e.g.*, the Apple iTunes  
15 App Store) and instructions to end-user customers so that such customers will use  
16 the Accused Products in an infringing manner.

17           228. Facebook’s end-user customers directly infringe at least one or more  
18 claims of the ‘164 Patent by using the Accused Products in their intended manner  
19 to infringe. Facebook induces such infringement by providing the Accused  
20 Products and instructions to enable and facilitate infringement, knowing of, or  
21 being willfully blind to the existence of, the ‘164 Patent. On information and belief,  
22 Facebook specifically intends that its actions will result in infringement of at least  
23 one or more claims of the ‘164 Patent, or subjectively believe that their actions will  
24 result in infringement of the ‘164 Patent, but took deliberate actions to avoid  
25 learning of those facts, as set forth above.

26           229. Additionally, Facebook contributorily infringes at least one or more  
27 claims of the ‘164 Patent by providing the Accused Products and/or software  
28 components thereof, that embody a material part of the claimed inventions of the

1 '164 Patent, that are known by Facebook to be specially made or adapted for use in  
2 an infringing manner, and are not staple articles with substantial non-infringing  
3 uses. The Accused Products are specially designed to infringe at least one or more  
4 claims of the '164 Patent, and their accused components have no substantial non-  
5 infringing uses. In particular, on information and belief, the software modules and  
6 code that implement and perform the infringing functionalities identified above are  
7 specially made and adapted to carry out said functionality and do not have any  
8 substantial non-infringing uses.

9 230. Facebook's infringement of the '164 Patent was and continues to be  
10 willful and deliberate, entitling Corrino to enhanced damages.

11 231. Additional allegations regarding Facebook's knowledge of the '164  
12 Patent and willful infringement will likely have evidentiary support after a  
13 reasonable opportunity for discovery.

14 232. Facebook's infringement of the '164 Patent is exceptional and entitles  
15 Corrino to attorneys' fees and costs incurred in prosecuting this action under 35  
16 U.S.C. § 285.

17 233. Corrino is in compliance with any applicable marking and/or notice  
18 provisions of 35 U.S.C. § 287 with respect to the '164 Patent.

19 234. Corrino is entitled to recover from Facebook all damages that Corrino  
20 has sustained as a result of Facebook's infringement of the '164 Patent, including,  
21 without limitation, a reasonable royalty.

22 **PRAYER FOR RELIEF**

23 WHEREFORE, Corrino respectfully requests:

- 24 A. That Judgment be entered that Facebook has infringed at least one or  
25 more claims of the Patents-in-Suit, directly and/or indirectly, literally  
26 and/or under the doctrine of equivalents;
- 27 B. An award of damages sufficient to compensate Corrino for Facebook's  
28 infringement under 35 U.S.C. § 284, including an enhancement of

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- damages on account of Facebook’s willful infringement;
- C. That the case be found exceptional under 35 U.S.C. § 285 and that Corrino be awarded its reasonable attorneys’ fees;
- D. Costs and expenses in this action;
- E. An award of prejudgment and post-judgment interest; and
- F. Such other and further relief as the Court may deem just and proper.

**DEMAND FOR JURY TRIAL**

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, Corrino respectfully demands a trial by jury on all issues triable by jury.

Respectfully submitted,  
Dated: October 4, 2018

LEE SULLIVAN SHEA & SMITH LLP  
*and*  
DEVLIN LAW FIRM

By: /s/ Jeffrey F. Craft  
George I. Lee  
Jeffrey F. Craft

*Attorneys for Plaintiff  
Corrino Holdings LLC*