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Attorneys for Plaintiff,
Corrino Holdings LLC

UNITED STATES DISTRICT COURT

FOR THE CENTRAL DISTRICT OF CALIFORNIA

CORRINO HOLDINGS LLC,

Plaintiff,

v.

FACEBOOK, INC.,

Defendant.

Case No. 2:18-cv-8541

COMPLAINT FOR PATENT INFRINGEMENT

JURY TRIAL DEMANDED

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

Patents-in-Suit.

THE PARTIES

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

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

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

JURISDICTION AND VENUE

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

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

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

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

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

PATENTS-IN-SUIT

The '398 Patent

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

as Exhibit A.

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

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

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

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

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

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

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

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

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

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

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

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

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

drawn to longstanding human activities.

The '331 Patent

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

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

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

29. The '331 Patent is valid and enforceable under United States Patent Laws.

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

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

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

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

The '599 Patent

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

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

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

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

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

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

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

The '450 Patent

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

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

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

43. The '450 Patent is valid and enforceable under United States Patent Laws.

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

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

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

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

The '685 Patent

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

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

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

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

50. The '685 Patent is valid and enforceable under United States Patent Laws.

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

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

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

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

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

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

The Inventions Claimed in the '685 Patent Improved Technology & Were Not Well-Understood, Routine, or Conventional

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

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

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

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

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

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

The '149 Patent

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

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

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

64. The '149 Patent is valid and enforceable under United States Patent Laws.

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

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

The Inventions Claimed in the '149 Patent Improved Technology & Were Not Well-Understood, Routine, or Conventional

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

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

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

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

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

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

The '104 Patent

72. U.S. Patent No. 7,958,104 ("the '104 Patent") is entitled "Context

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

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

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

75. The '104 Patent is valid and enforceable under United States Patent Laws.

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

77. In this regard, the inventors of the '104 Patent recognized the deficiencies with the conventional technological approaches to conducting searches of information repositories across communications networks and sought "to improve the information search techniques" used in certain technological

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

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

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

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

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

The Inventions Claimed in the '104 Patent Improved Technology & Were Not Well-Understood, Routine, or Conventional

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

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

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

83. Indeed, it was not well-understood, routine, or conventional at the time of the invention of the '104 Patent to (i) receive, from a user device, a search request that includes information related to the user and/or the user device, (ii) process that search request by identifying a context chain related to the user and/or the user device based on the information passed with the search request—where the context chain includes multiple contexts, with each context 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, and (iii) responding to the search request by (a) obtaining a search result from at least one context in the context chain, and (b) providing the search result to the user device. *See id.* at Claims 1, 15, 23. These are just exemplary reasons why the inventions claimed in the '104 Patent were not well-understood, routine, or conventional at the time of the invention of the '104 Patent.

84. Additionally, the '104 Patent's unique and more efficient search technique improved the operational efficiency of computer systems that issue search requests across communications networks and computer systems that process search requests received across communications networks. Specifically, these techniques allowed for computing systems to conserve processing resources by selectively evaluating responses that are in an identified context chain, rather than all responses, without requiring the user to submit computationally excessive queries; in fact, the disclosed techniques allowed for more efficient use of the communication network while simultaneously allowing users to submit relatively simple common-language queries. *See, e.g.*, *id* at 2:50-61, 28:33-39, 28:42-45, 28:49-52. In other words, the '104 Patent's specific improvement over existing technology resulted in improved computing systems that processed search requests across communication networks.

85. Consistent with the problems addressed being rooted in communication network searching technology, the '104 Patent's solutions naturally are also rooted in that same technology that cannot be performed solely with pen and paper or in the human mind. Indeed, using pen and paper or a human mind would ignore the stated purpose of the '104 Patent and the problem it was specifically designed to address. Doing so would also run counter to the inventors' detailed description of the inventions and the language of the claims and be a practical impossibility. Likewise, at least because the '104 Patent's claimed solutions address problems rooted in communication network searching technology, these solutions are not merely drawn to longstanding human activities.

The '533 Patent

86. U.S. Patent No. 9,262,533 ("the '533 Patent") is entitled "Context based data searching," and was issued on February 16, 2016. A true and correct copy of the '533 Patent is attached as Exhibit H.

87. The '533 Patent was filed on March 2, 2011 as U.S. Patent Application

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

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

89. The '533 Patent is valid and enforceable under United States Patent Laws.

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

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

92. Indeed, it was not well-understood, routine, or conventional, at the time of the invention of the '533 Patent, to receive, from a user device, a search request that includes information related to the user and/or the user device and then process that search request by (i) identifying a context chain related to the user and/or the user device based on the information passed with the search request, and (ii) examining contexts in the context chain in a last-in-first-out order in which the most recently added contexts are examined before contexts that were added earlier. *See* Exhibit H at Claims 1, 11, 17. Further it was not well-understood, routine, or conventional, at the time of the invention of the '533 Patent, to identify a context chain related to the user and/or the user device based on the information passed with the search request—where the context chain includes (i) multiple 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, and (ii) at least one context that is independently searchable with respect to other contexts of the context chain. These are just exemplary reasons

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

The '164 Patent

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

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

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

96. The '164 Patent is valid and enforceable under United States Patent Laws.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

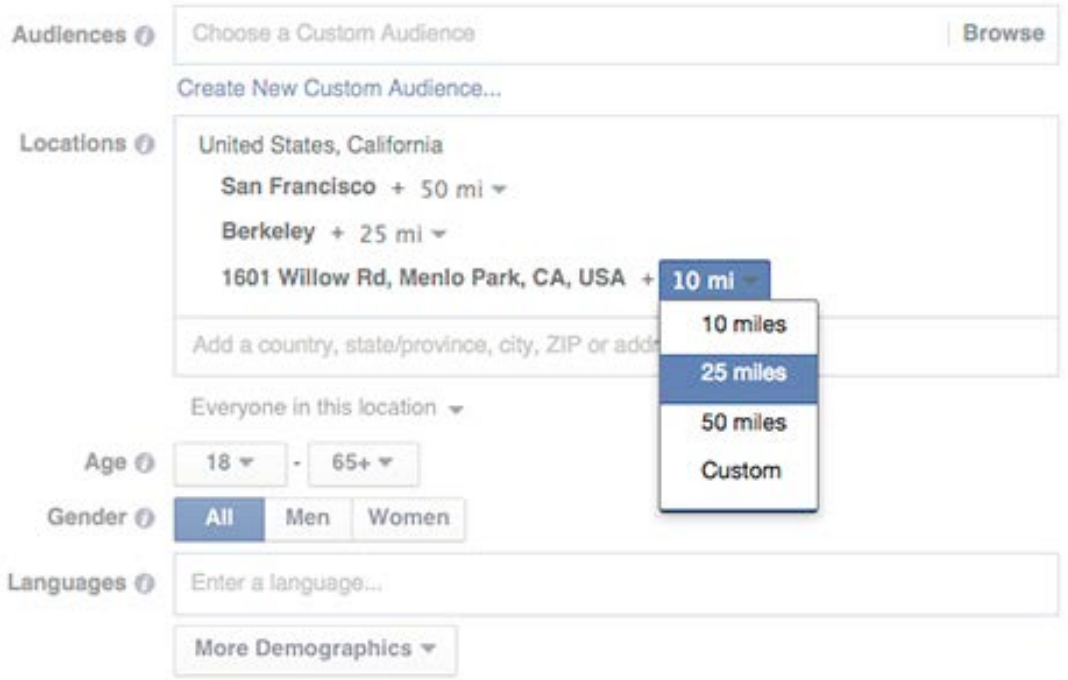
providing Facebook's Location Targeting services enable a Facebook advertiser's information (*e.g.*, an advertisement) to be provided to a particular "audience" (*i.e.*, wireless communications devices of particular Facebook users). Facebook allows a Facebook advertiser to define the particular "audience"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

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

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

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

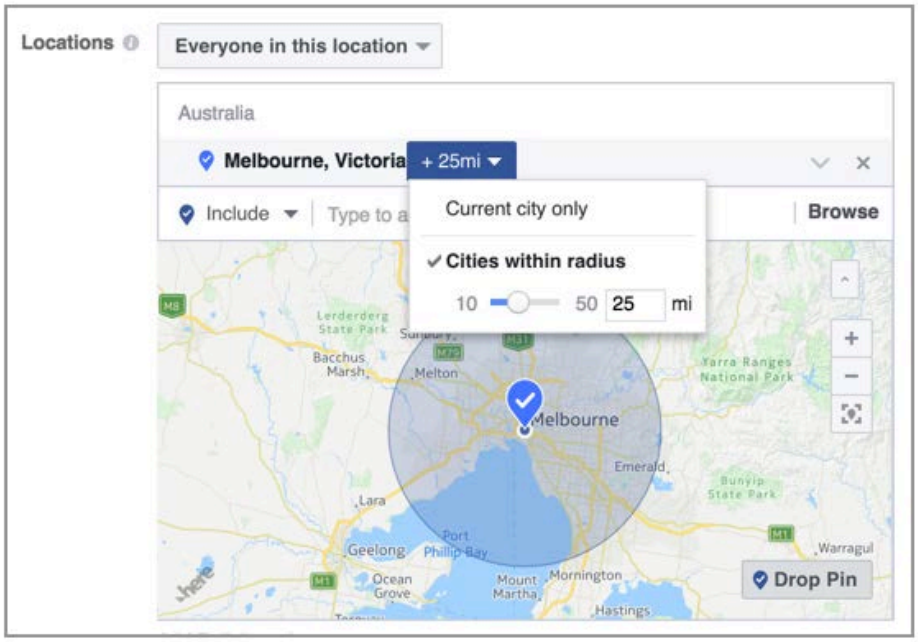
Facebook provides an example illustration in which a Facebook advertiser becomes associated with at least two geographic regions (*e.g.*, San Francisco and Berkeley, California) and in which the advertiser defines a corresponding distance around each region (*e.g.*, 50-mile radius around San Francisco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



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.

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

In particular, Facebook generally explains that "[f]irst, you will need to upload your business locations," then "[s]elect the Country of your business location then add specific store locations within the country you've selected," and lastly, "[c]hoose the radius around each of your business locations that you want to reach people in." https://www.facebook.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

without limitation, a reasonable royalty.

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

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

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

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

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

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

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

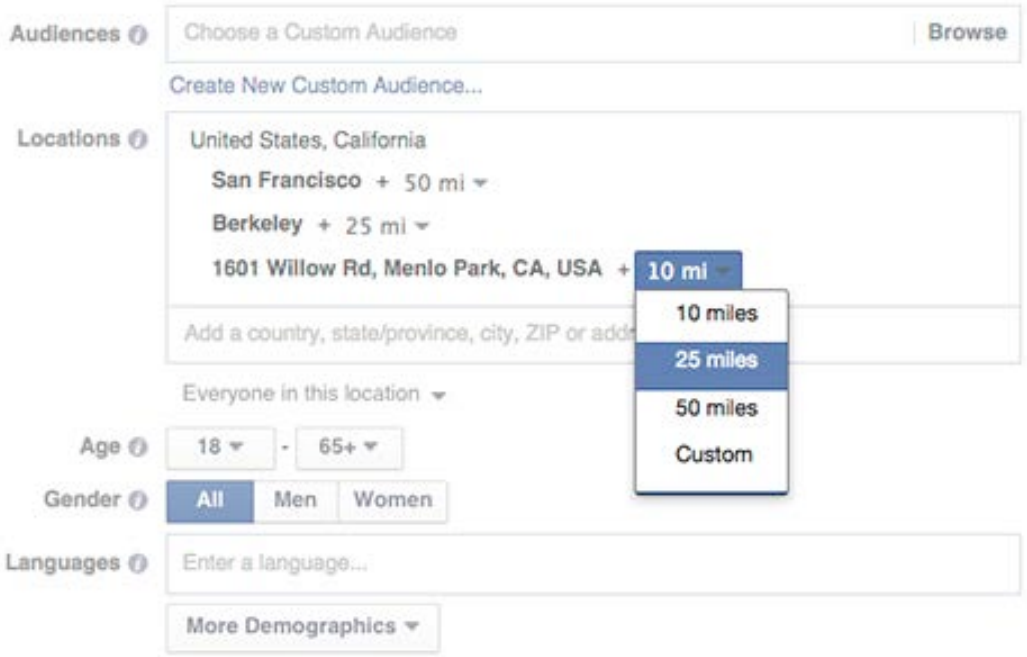
For instance, Facebook's servers are configured to facilitate providing Facebook's Location Targeting services that enable a Facebook advertiser's data (*e.g.*, an advertisement) to be provided to a particular "audience" (*i.e.*, communications devices of particular Facebook users). Facebook allows a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

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

As one possibility, any Facebook advertiser that utilizes Facebook's "radius targeting" feature is associated with at least one geographic region

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

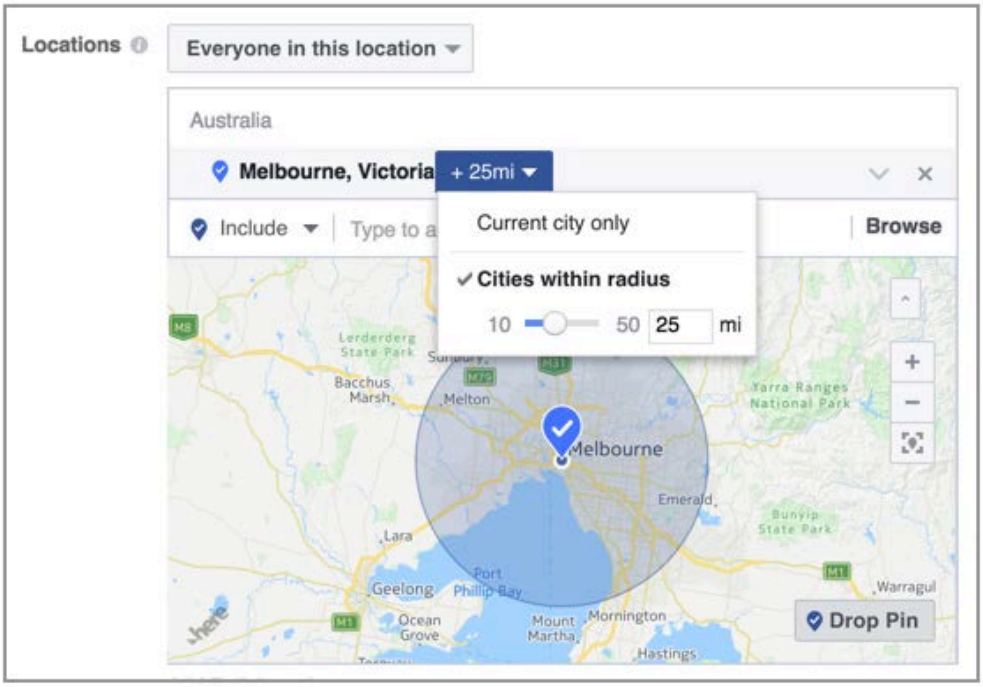
Facebook provides an example illustration in which a Facebook advertiser becomes associated with at least two geographic regions (*e.g.*, San Francisco and Berkeley, California) and in which the advertiser defines a corresponding distance around each region (*e.g.*, 50-mile radius around San Francisco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



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.

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

In particular, Facebook generally explains that "[f]irst, you will need

to upload your business locations," then "[s]elect the Country of your business location then add specific store locations within the country you've selected," and lastly, "[c]hoose the radius around each of your business locations that you want to reach people in." https://www.facebook.com/business/help/202297959811696. With respect to this last step, Facebook further explains that "[y]ou can either select Automatic Radius to allow us to automatically set a radius around your store locations, or choose Fixed Radius to reach people within a fixed distance to one of your locations." *Id*.

1(c): initiating the transmission of data from at least one of the information sources to a communications device if the communications device's indicated geographic position changes from a first position that is greater than a predefined distance from a geographic region associated with the at least one information source to a second position that is within a predefined distance from a geographic region associated with the at least one information source.—Facebook's servers initiate the transmission of data from at least one of the information sources to a communications device if the communications device's indicated geographic position changes from a first position that is greater than a predefined distance from a geographic region associated with the at least one information source to a second position that is within a predefined distance from a geographic region associated with the at least one information source.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

users, including the Facebook www.facebook.com website and mobile application, that infringe at least one or more claims of the '599 Patent.

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

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

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

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

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

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

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

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

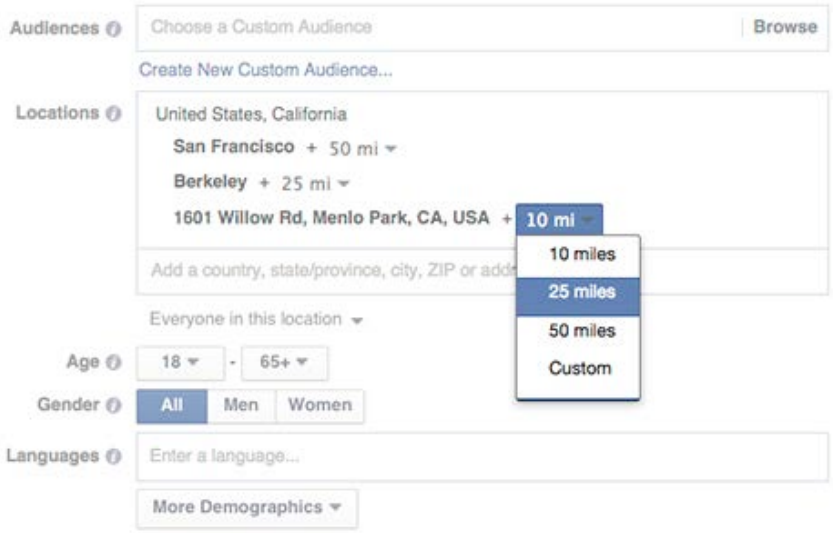
associates the advertiser (and its digital content) with the factors that define its particular audience. https://www.facebook.com/business/products/ads/ad-targeting ("Whether you're a flower shop that wants more local customers or an online electronics retailer looking for people interested in your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

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

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

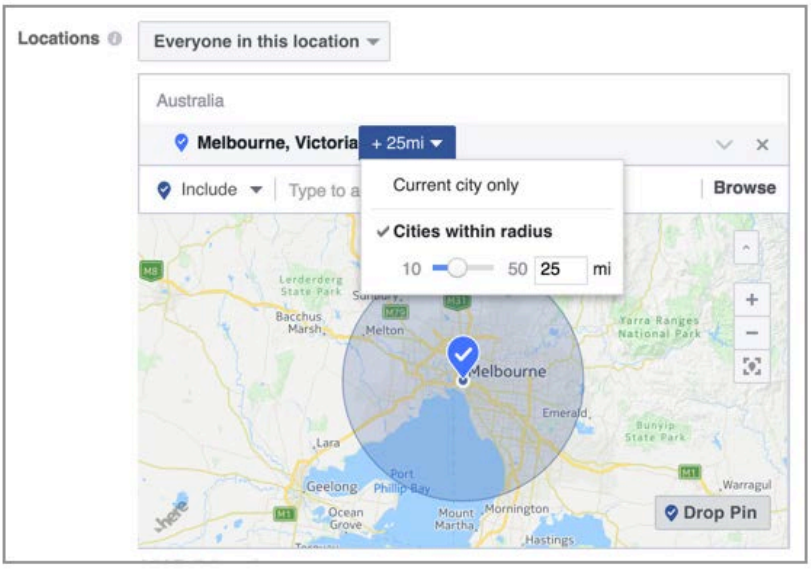
Facebook provides an example illustration in which a Facebook advertiser becomes associated with at least two geographic areas (*e.g.*, San Francisco and Berkeley, California) and in which the advertiser defines a corresponding distance around each area (*e.g.*, 50-mile radius around San

Francisco and 25-mile radius around Berkeley):



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

Facebook provides another example illustration in which a Facebook advertiser becomes associated with a geographic area (*e.g.*, Melbourne, Victoria in Australia) and in which the advertiser defines a corresponding distance around that area (*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.

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

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

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

549606837 ("You can control both what dates and what times we show your ads. . . . To set start and end dates/times, select Set a start and end date in the 'Schedule' section of ad set creation and choose the start and end dates/times.").

Thus, as one example, the server that facilitates providing Facebook's Location Targeting service is configured to initiate transmission of a Facebook advertiser's digital content to the wireless communications device of one of the advertiser's "audience" members in response to determining that the geographic position of the wireless communications device has changed to be within a predefined distance (*e.g.*, "custom radius") of a geographic area associated with the digital content during a predefined timeframe associated with the digital content, in accordance with the Facebook Location Targeting service.

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

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

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

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

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

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

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

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

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

reasonable opportunity for discovery.

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

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

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

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

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

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

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

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

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

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

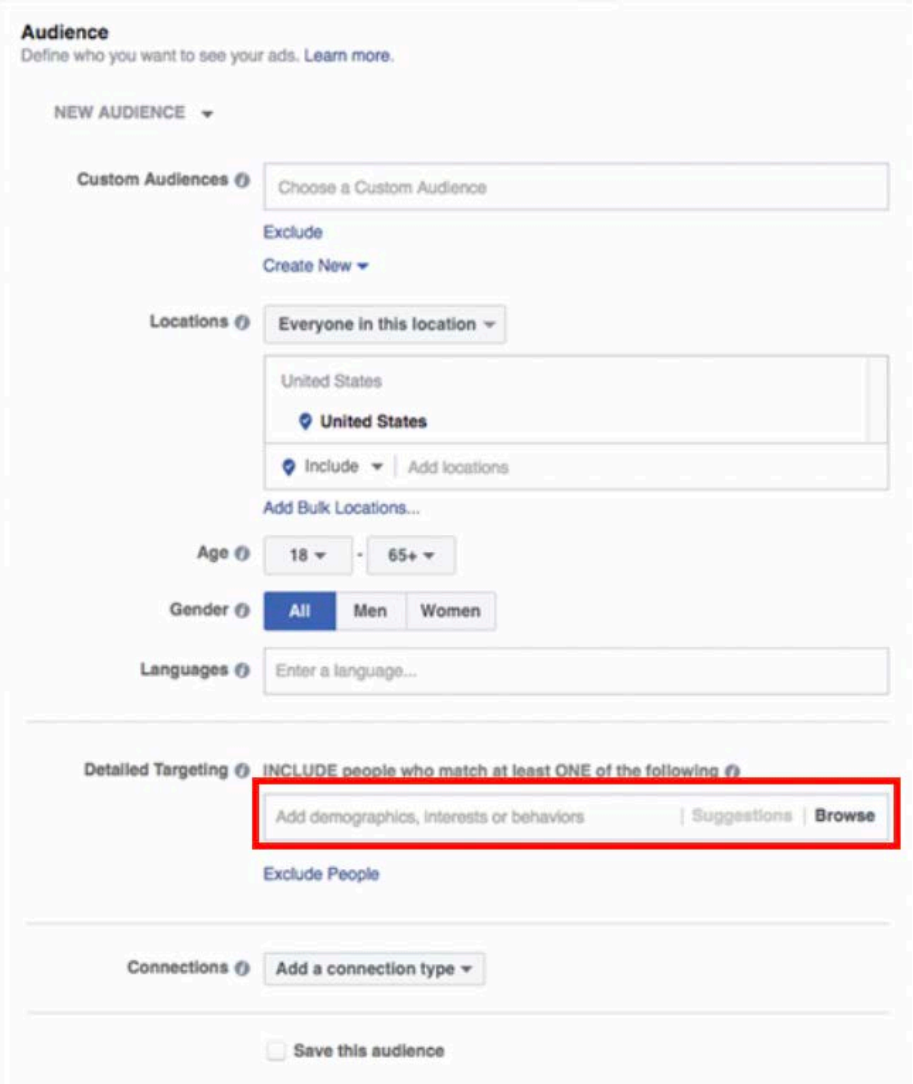
For instance, the one or more servers that are configured to facilitate providing Facebook's Location Targeting services enable a Facebook advertiser's relevant data (*e.g.*, an advertisement) to be provided to a particular "audience" (*i.e.*, communications devices of particular Facebook users). Facebook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

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

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

ones using the 'Add demographics, interests or behaviors' search bar." https://www.facebook.com/business/help/182371508761821?helpref=page_content.

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



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

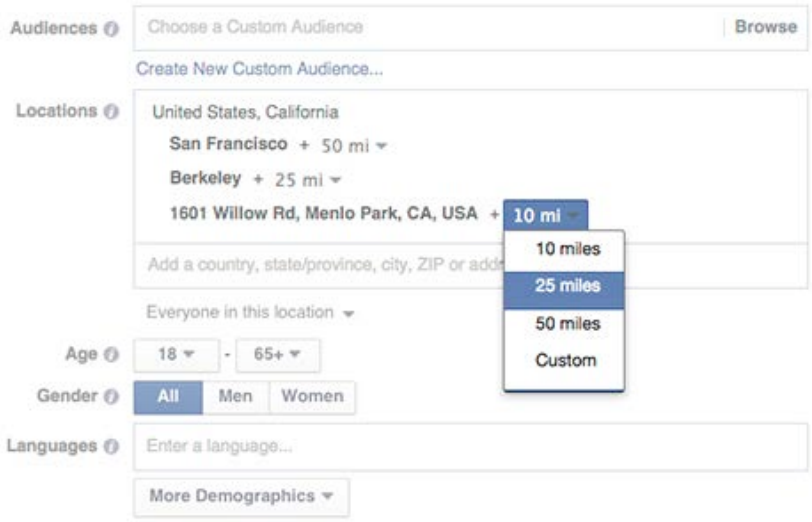
On information and belief, each of Facebook's demographic criterion (discussed above) corresponds to a respective demographic code that is

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

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

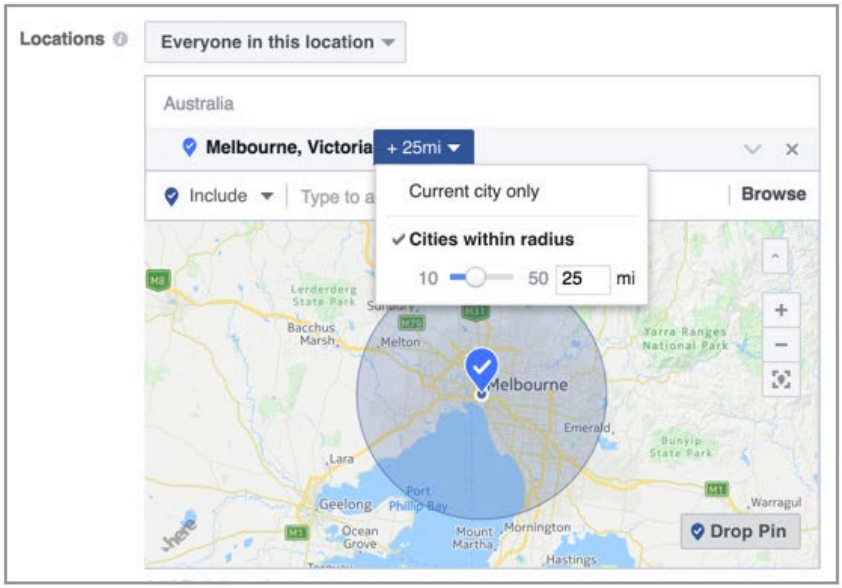
As one possibility, any Facebook advertiser that utilizes Facebook's "radius targeting" feature is associated with at least one geographic region and defines a corresponding distance around that at least one geographic region. As explained by Facebook, "[l]ocation targeting lets you select your audience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

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



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.

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

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

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

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

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

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

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

11(d): a processor for initiating the transmission of relevant data to a communications device in response to receiving (i) an identifier corresponding to the communications device and (ii) an indication of the geographic position of the communications device, wherein the relevant data originates from at least one information source that is associated with both (i) a location code corresponding to a geographic region within a defined distance from the geographic position specified in the received indication, and (ii) a demographic code associated with the communications device specified in the received indication.—Facebook at least makes and uses a system (*e.g.*, one or more servers) to facilitate providing its Location Targeting service that comprises a processor for initiating the transmission of relevant data to a communications device in response to receiving (i) an identifier corresponding to the communications device and (ii) an indication of the geographic position of the communications device, wherein the relevant data originates from at least one information source that is associated with both (i) a location code corresponding to a geographic region within a defined distance from the geographic position specified in the received indication, and (ii) a demographic code associated with the communications device specified in the received indication.

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

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

more servers receive an identifier corresponding to the communications devices. *See, 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 your use of our Products on your phone to better personalize the content (including ads) or features you see when you use our Products on another device, such as your laptop or tablet, or to measure whether you took an action in response to an ad we showed you on your phone on a different device. Information we obtain from these devices includes . . . Identifiers: unique identifiers, device IDs, and other identifiers, such as from games, apps or accounts you use, and Family Device IDs (or other identifiers unique to Facebook Company Products associated with the same device or account)").

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

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

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

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

the received indication and (ii) a demographic code associated with the communications device specified in the received indication. For instance, as discussed above, a Facebook advertiser can define its particular "audience" based on a variety of factors, including one or more geographic regions and one or more demographics. In line with the above discussion, along with being associated with one or more geographic regions, the Facebook advertiser can set respective defined distances for the one or more geographic regions. The one or more servers are configured to transmit the Facebook advertiser's advertisement to the communications device when (i) the communications device's geographic position is within any of the advertiser's defined distances corresponding to any of its geographic regions and (ii) a demographic code associated with the communications device corresponds to one or more demographics associated with the advertiser.

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

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

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

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

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

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

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

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

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

reasonable opportunity for discovery.

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

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

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

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

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

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

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

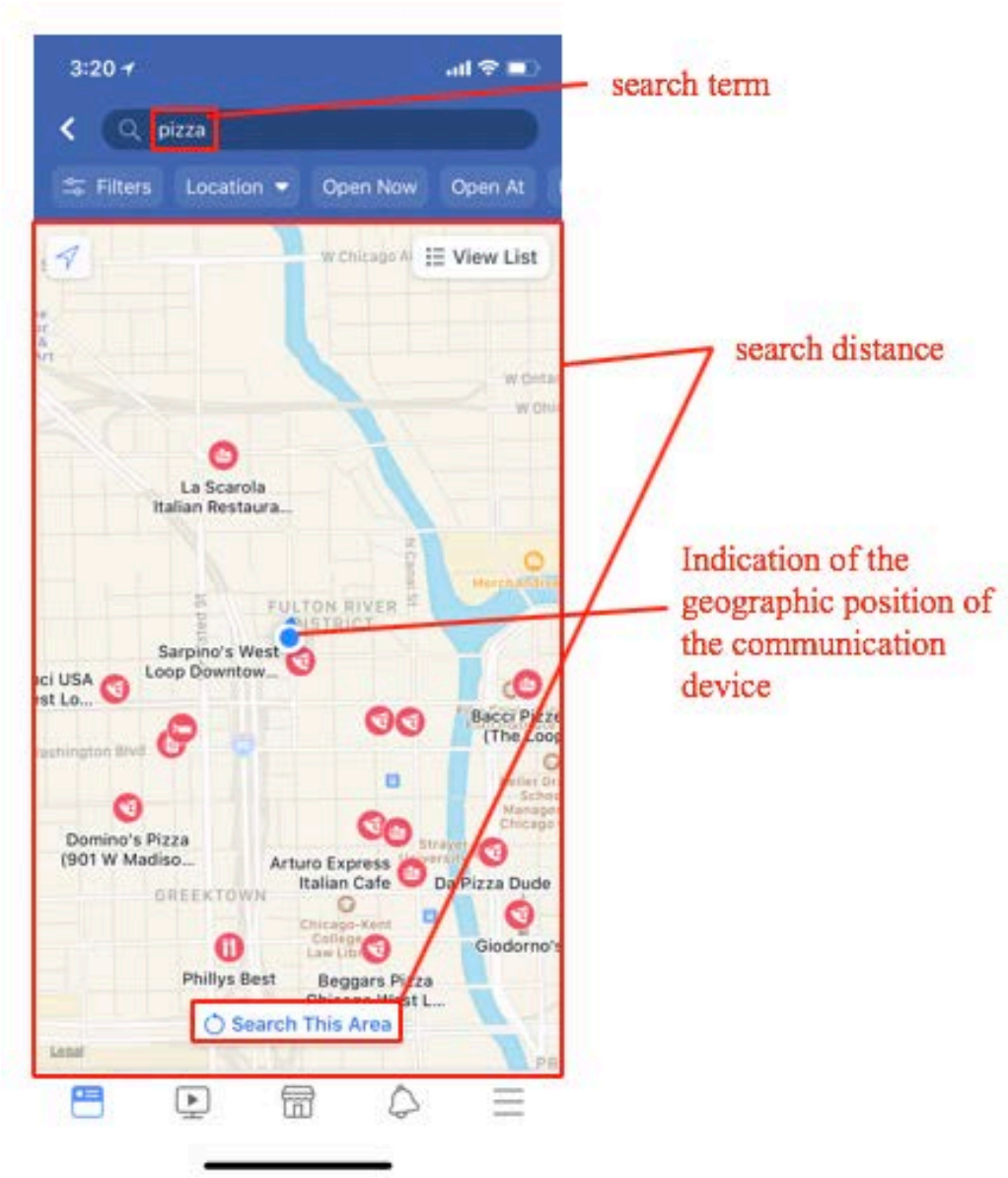
19(a): A system comprising:—As noted above, Facebook is a social networking platform that provides services by which a Facebook user utilizes a communications device to obtain search-query results related to a query that can be based on a variety of search parameters. Facebook at least makes

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

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

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

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



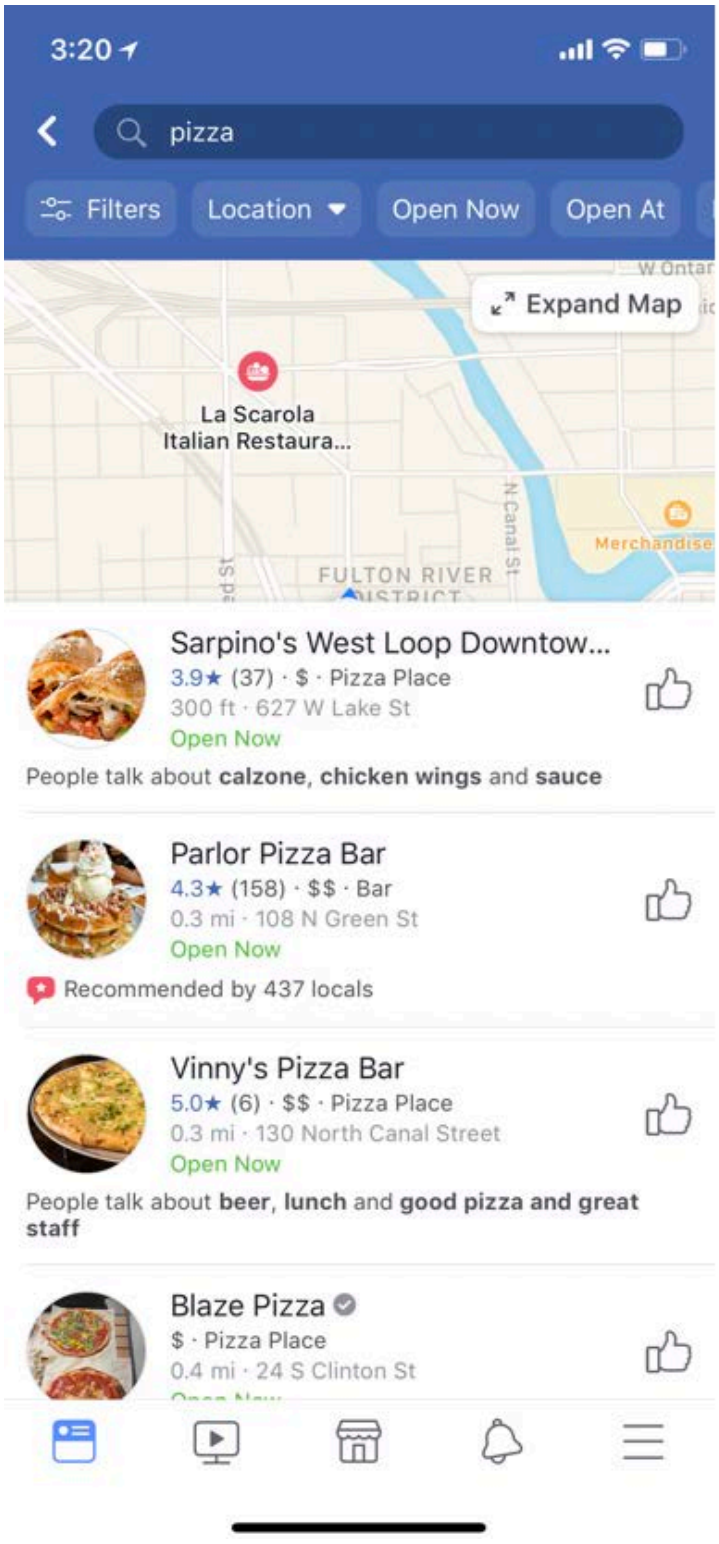
Moreover, Facebook explains that it collects data relating to communication devices, including data relating to "device attributes," "device operations," "identifiers," and "device signals," among other data. https://www.facebook.com/privacy/explanation; *see also, e.g.*, https://www.facebook.com/policy.php ("[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

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

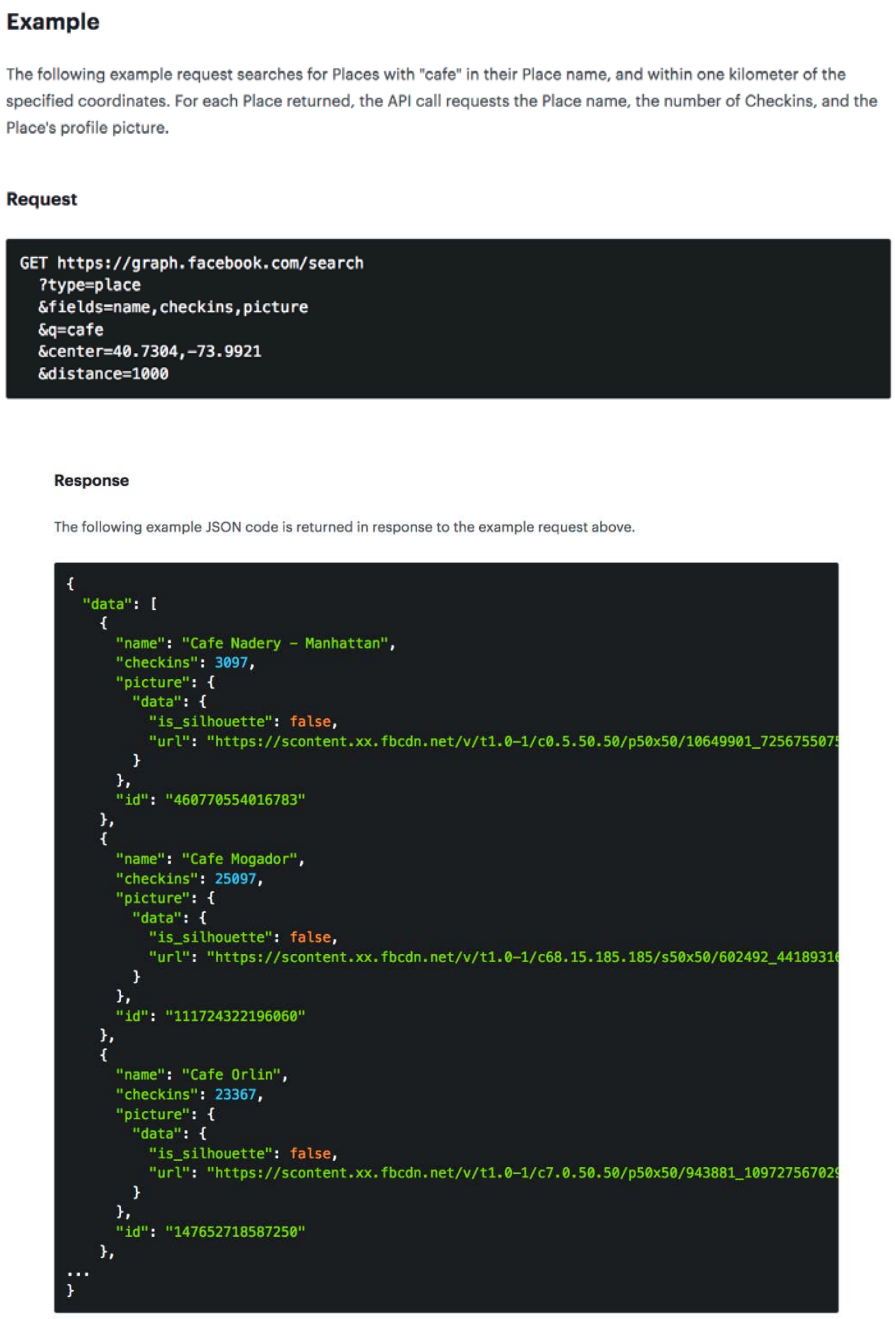
Facebook further explains that it collects various data to provide "location-related information," which "can be based on things like precise device location . . .," among other things. *Id*; *see also, e.g.*, https://developers.facebook.com/docs/places/web/search ("You use these parameters to define your search criteria. . . . 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.").

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

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



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



Example

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.

Request

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

Response

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

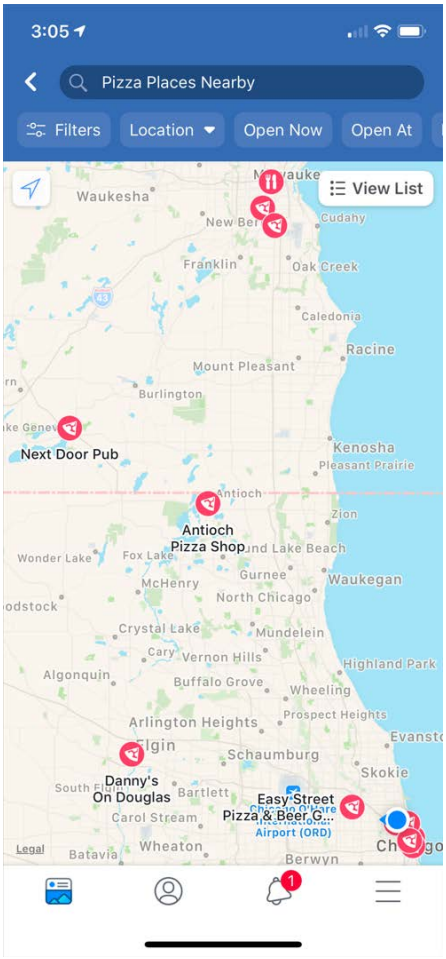

```
{
  "data": [
    {
      "name": "Cafe Nadery - Manhattan",
      "checkins": 3097,
      "picture": {
        "data": {
          "is_silhouette": false,
          "url": "https://scontent.xx.fbcdn.net/v/t1.0-1/c0.5.50.50/p50x50/10649901_725675507
        }
      },
      "id": "460770554016783"
    },
    {
      "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_4418931
        }
      },
      "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"
    },
...
}
```


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

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

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

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



See, e.g., https://developers.facebook.com/docs/marketing-api/targeting-search (describing various location codes utilized by Facebook, including "region codes" for countries, "city codes" for cities, "locale codes" for locales, etc.).

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

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

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

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

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

168. Facebook's end-user customers directly infringe at least one or more claims of the '685 Patent by using the Accused Products in their intended manner to infringe and/or by making an infringing device via downloading the Facebook www.facebook.com website and/or mobile application. Facebook induces such

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

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

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

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

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

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

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

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

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

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

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

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

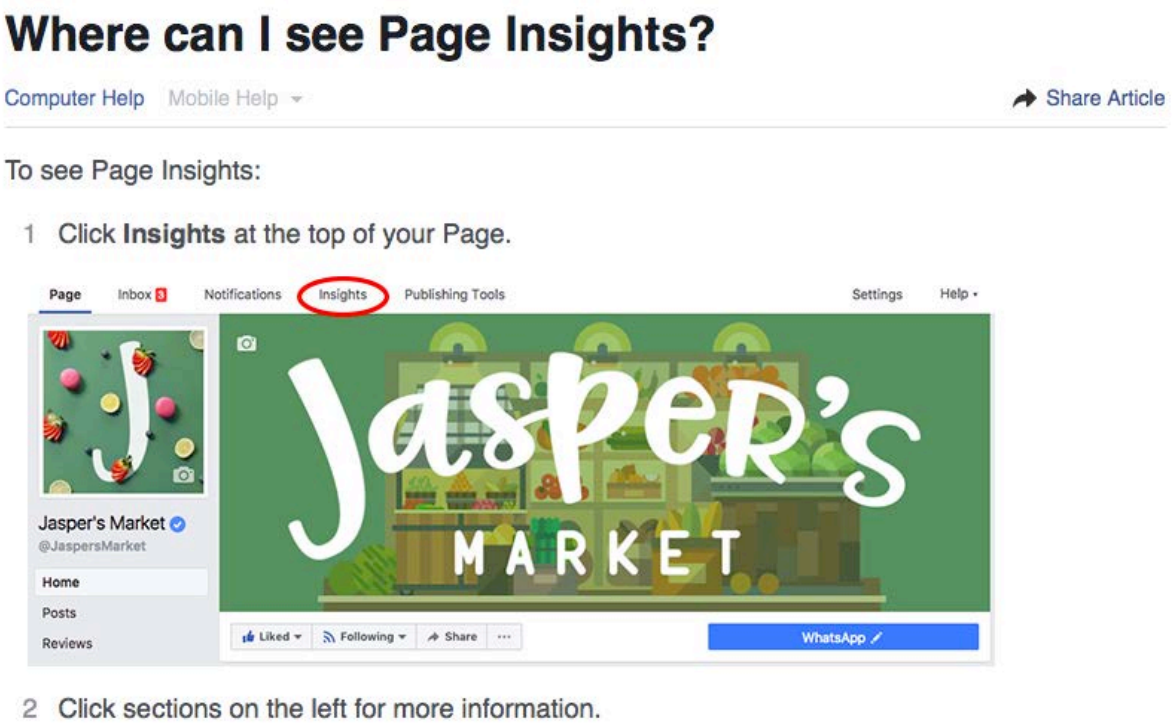
On information and belief, Facebook, through its employees (*e.g.*, software developers, user support staff, etc.), has utilized and/or continues utilizing a computer system (*e.g.*, desktop or laptop computer, mobile phone, tablet, etc.) to perform the computer-controlled method of claim 1, such as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

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

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

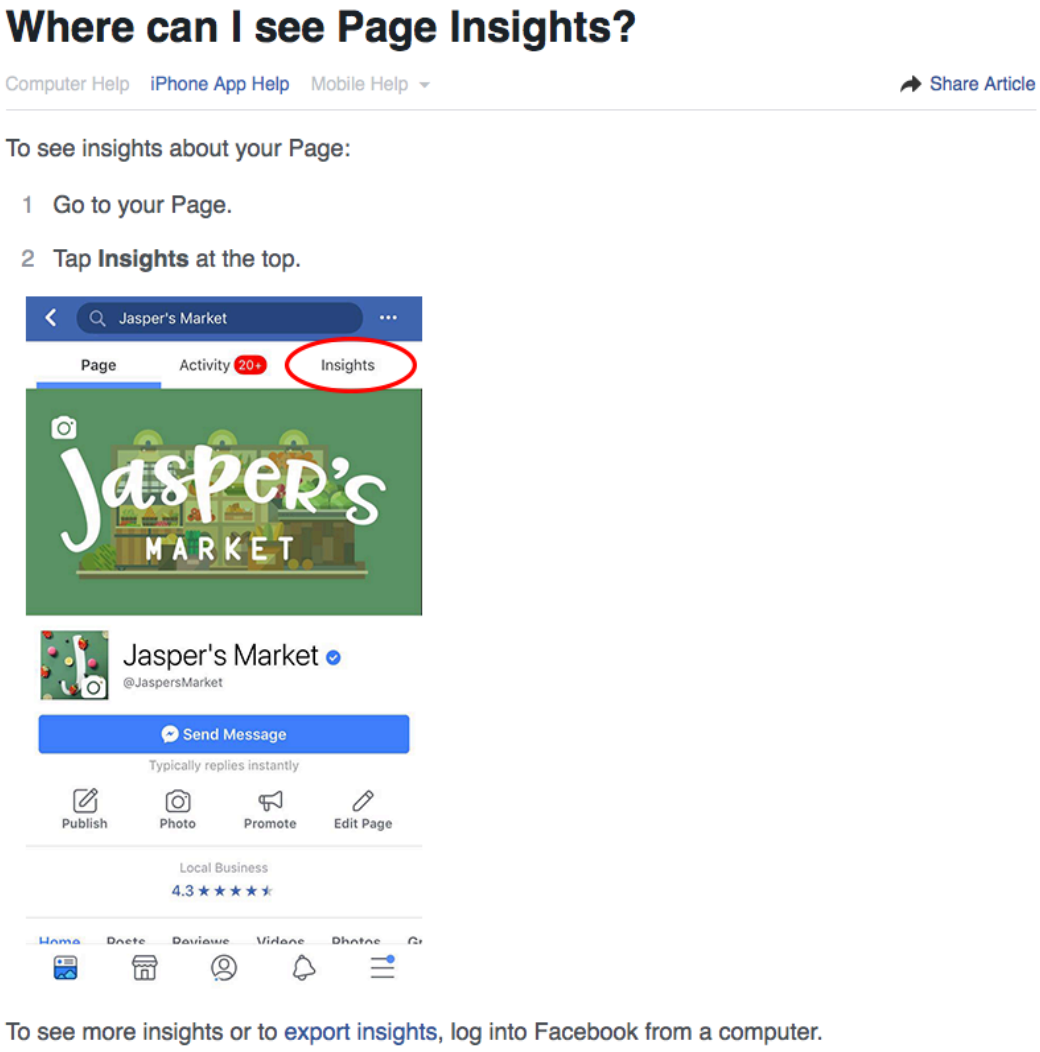
overall interactivity level include a Page Likes visualization, a Post Reach visualization, and an Engagement visualization, among numerous other examples. *See* https://www.facebook.com/business/a/page/page-insights; *see also, e.g.*, https://blog.bufferapp.com/facebook-insights ("The Overview tab within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

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



https://www.facebook.com/help/268680253165747.

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



https://www.facebook.com/help/iphone-app/268680253165747.

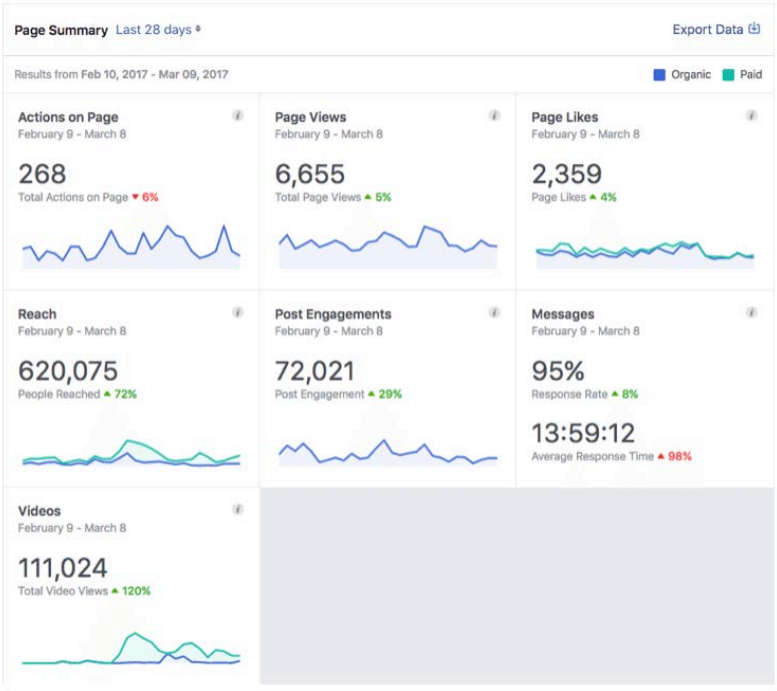
Upon selection of the "Insights" icon (circled in red in the above images), Facebook's servers cause the computer system to display a variety of Page Insights visualizations that represent a social aspect of Facebook's social online world. For example, Facebook's servers cause computer systems to display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

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

See your total likes, post reach and more

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

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



https://blog.bufferapp.com/facebook-insights.

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

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

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

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

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

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

See your Page likes metrics

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

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

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

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

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

See how many people your post was served to

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

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

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

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

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

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

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

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

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

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

above.

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

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

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

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

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

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

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

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

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

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

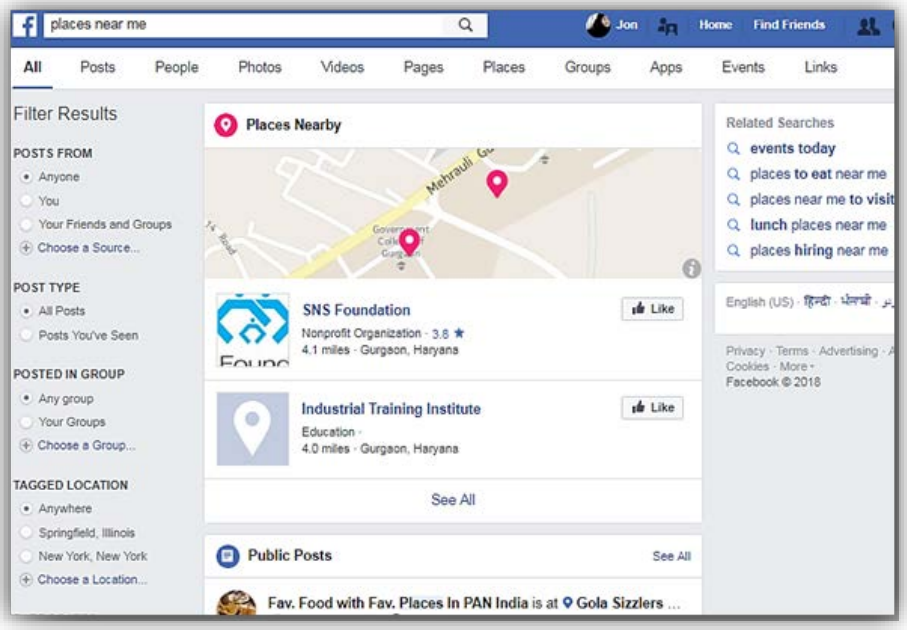
15(a): A method for facilitating data searching over a network, the method comprising— As noted above, Facebook is a social networking platform that provides services by which Facebook users can submit search requests through Facebook's website and Facebook's website responds by providing search results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

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

For example, Facebook's website provides a search feature allowing

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

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



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

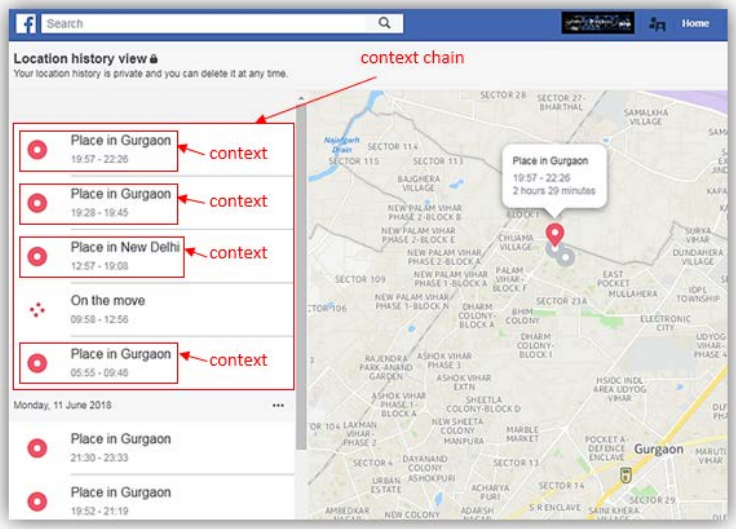
15(c): processing the search request by identifying a context chain related to the user device based on information passed with the search request, the context chain including a plurality of contexts, each context in the plurality of contexts being a private context in which content is controlled by 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:

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

https://www.facebook.com/location_history/info/.

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



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

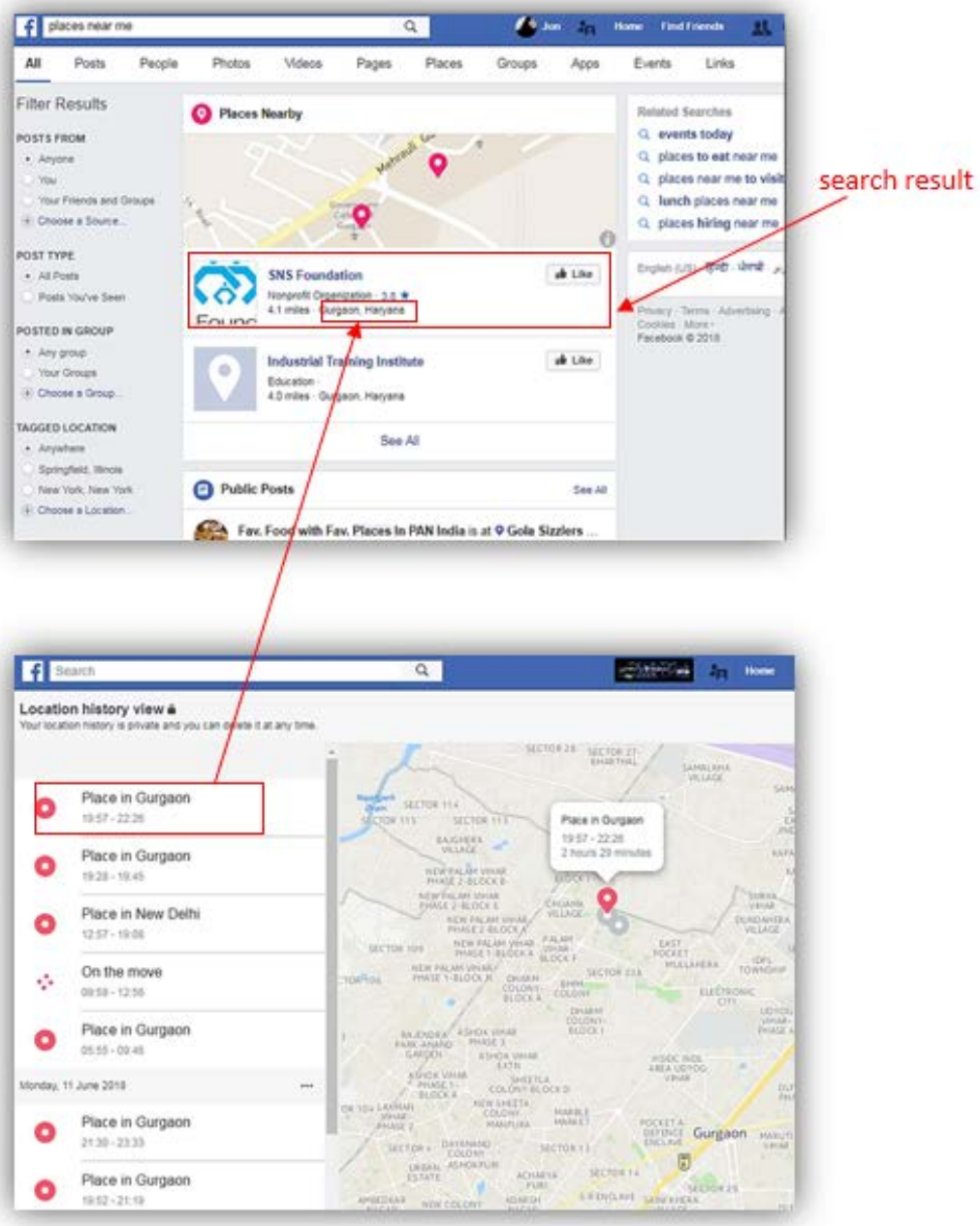
15(d): responding to the search request by providing at least one search result to the user device, the search result being obtained from at least one context in the plurality of contexts.—Facebook's website responds to the search request by providing to the user device at least one search result obtained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

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

> You see unique search results based on:
> - Your connections to people, places, things.
> - 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's website produces search results that include at least one search result that is obtained from one of the contexts in the identified context chain, as set forth above. In the example depicted below, in response to the search request that included the query "places near me," Facebook's website produced a search result for "SNS Foundation," which was obtained from the "Gurgaon" context.



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

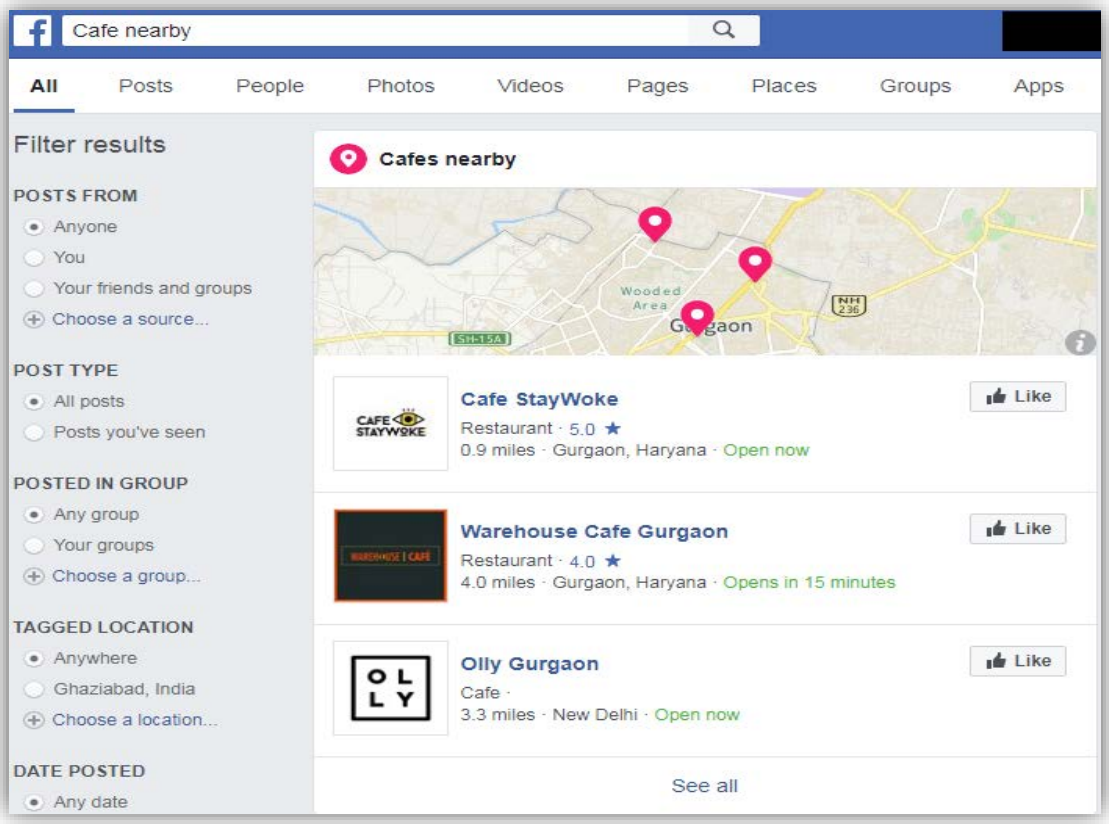
11(a): A method for facilitating data searching over a network, the method comprising:—As noted above, Facebook is a social networking platform that provides services by which Facebook users can submit search requests through Facebook's website and Facebook's website responds by providing search results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

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

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

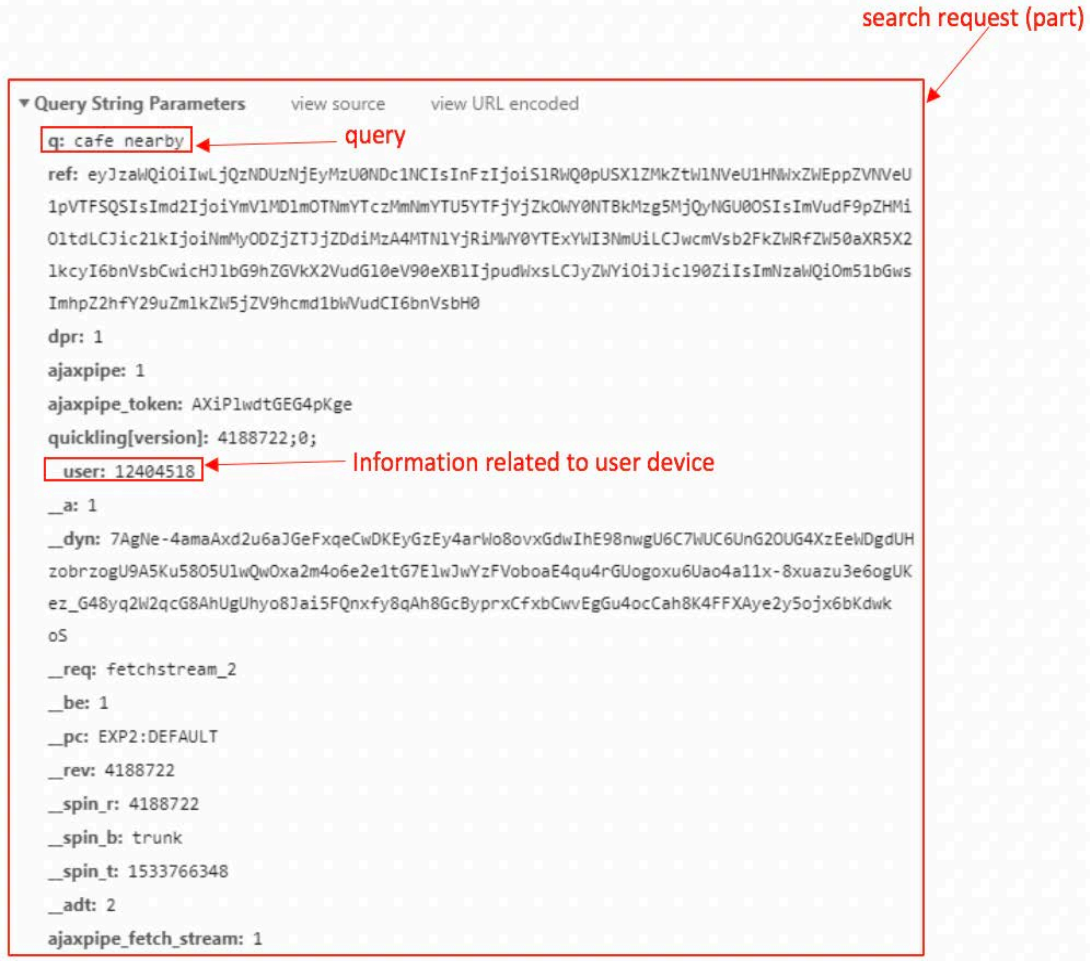
something: 1. Click the search bar at the top of any page on Facebook. 2. Enter what you're looking for and choose from the results." https://www.facebook.com/help/103764609715185. Facebook further explains that "[y]ou can search for people, posts, photos, videos, places, Pages, Groups, apps, links and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

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



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

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

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

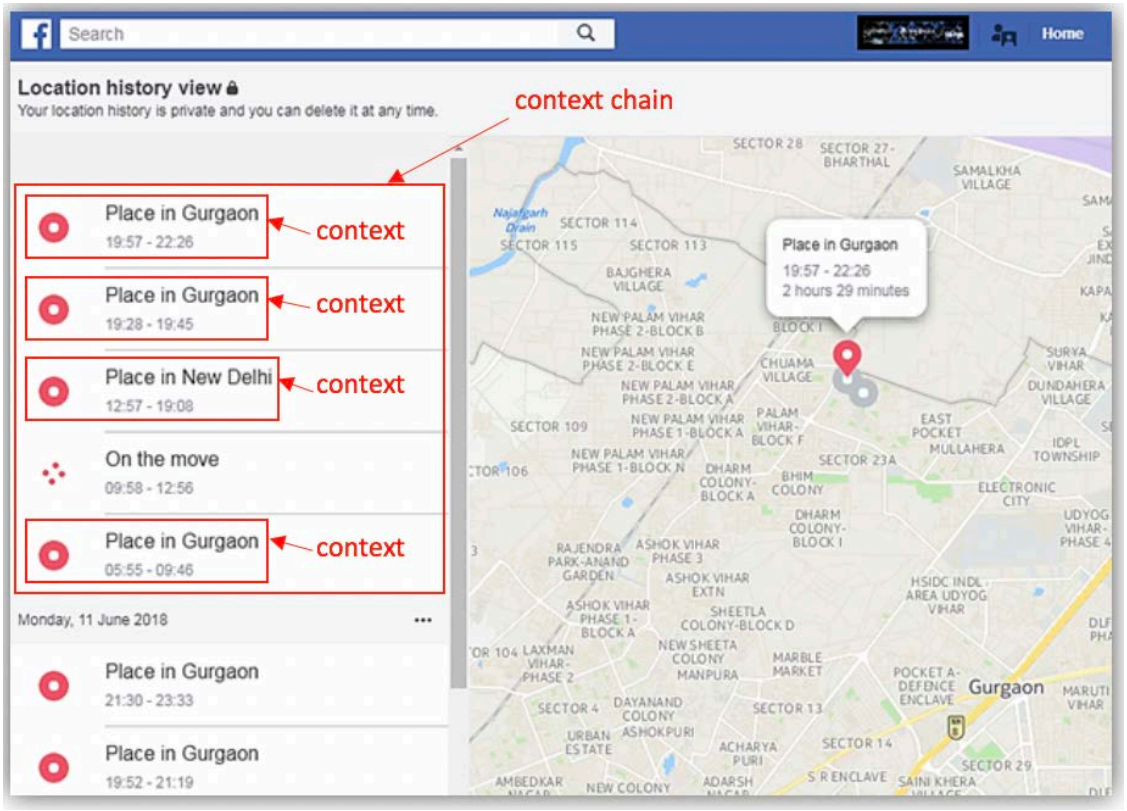
For example, Facebook provides a Location History feature that stores the location history of the user's device. In particular, Facebook explains that:

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

https://www.facebook.com/location_history/info/.

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



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

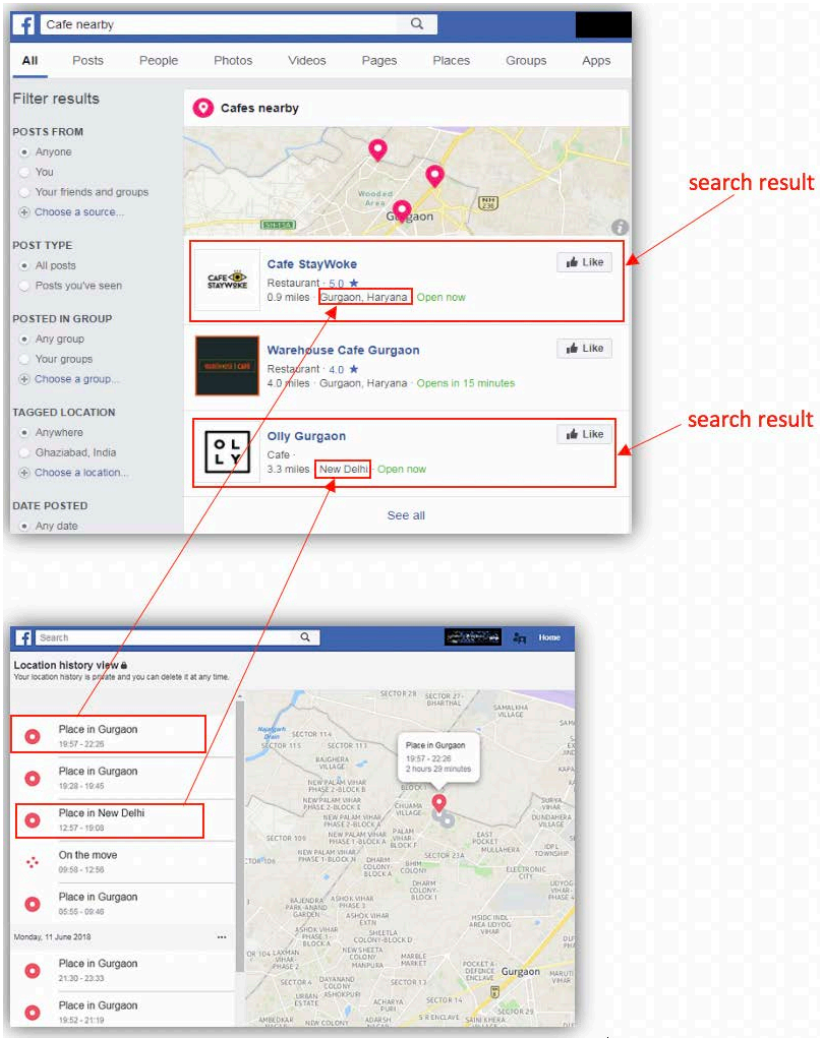
For instance, Facebook explains that:

- You see unique search results based on:
- Your connections to people, places, things.
- 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.

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

"Olly Gurgaon." In particular, the "Cafe StayWoke" search result is associated with the "Gurgaon" context, and the "Olly Gurgaon" search result is associated with the "New Delhi" context. As such, Facebook's website used the context chain to obtain a search result in response to the search request by, for instance, using the "Gurgaon" context in the context chain to obtain the "Cafe StayWoke" search result, and using the "New Delhi" 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,

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

Further, Facebook's website interprets the search request by using content published to the publishing spaces by publishers of different viewpoints. In the example above, Facebook retrieved the "Cafe StayWoke" search result by referring to content (*e.g.*, the name and/or description of the place) published by someone associated with the "Cafe StayWoke" restaurant. Likewise, Facebook retrieved the "Olly Gurgaon" search result by referring to content (*e.g.*, the name and/or description of the place) published by someone associated with the "Olly Gurgaon" Cafe. This content was published by publishers associated with those individual restaurants (*e.g.*, the individuals respectively associated with the "Cafe StayWoke" restaurant and the "Olly Gurgaon" Cafe), and as such, those publishers were of different viewpoints.

11(d): wherein the processing the search request includes: examining 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, and wherein at least one context of the context chain is independently searchable with respect to other contexts of the context chain; and—Facebook's website processes the search request by examining 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, and wherein at least one context of the context chain is

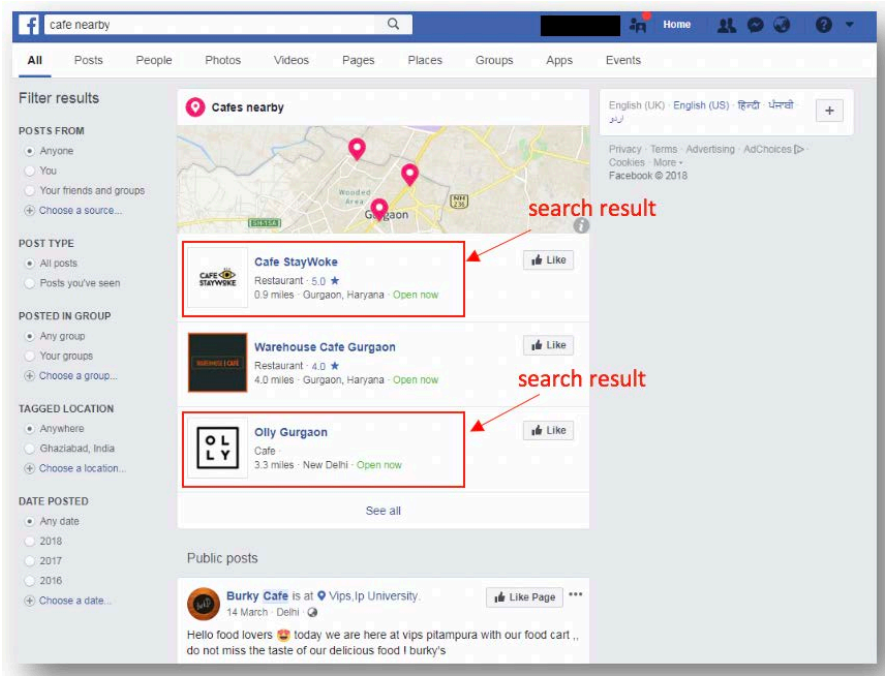
independently searchable with respect to other contexts of the context chain.

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

and/or displaying search results in reverse chronological order. For example, as depicted below, the "Gurgaon" context was most recently added to the context chain, and Facebook's website retrieved and/or displayed a search result for the "Gurgaon" context (*e.g.*, the "Cafe StayWoke" result) at the top of the three search results. The "New Delhi" context was added earlier to the context chain, and Facebook's website retrieved and/or displayed a search result for the "New Delhi" context (*e.g.*, the "Olly Gurgaon" result) at the bottom of the three search results.

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

11(e): providing the search result to the user device.—Facebook responds to the user entered search queries by "providing" or displaying the corresponding search result to the user device on Facebook's website, as depicted.



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

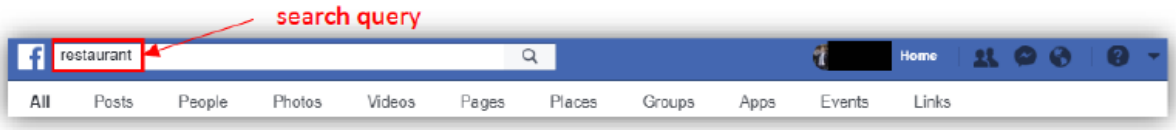
222. As just one non-limiting example, set forth below (with claim language in bold and italics) is a description of infringement of exemplary claim 1 of the '164 Patent in connection with the Accused Products. This description is based on publicly available information. Corrino reserves the right to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

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

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

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

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



1(c): using first context information associated with a user to determine a plurality of responsive actions that satisfy the user communication from second context information comprising a plurality of responsive actions that are distributed in a plurality of contexts and respective acceptance criteria for each respective responsive action of the responsive actions distributed in the contexts to determine relevance to the user communication—Facebook's website uses first context information associated with the user to determine a plurality of responsive actions that satisfy the user communication from second context information comprising a plurality of responsive actions that are distributed in a plurality of contexts and respective acceptance criteria for each respective responsive action of the responsive actions distributed in the contexts to determine relevance to the user communication. For instance, Facebook explains that:

> You see unique search results based on:
>
> - Your connections to people, places, things.

- 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.

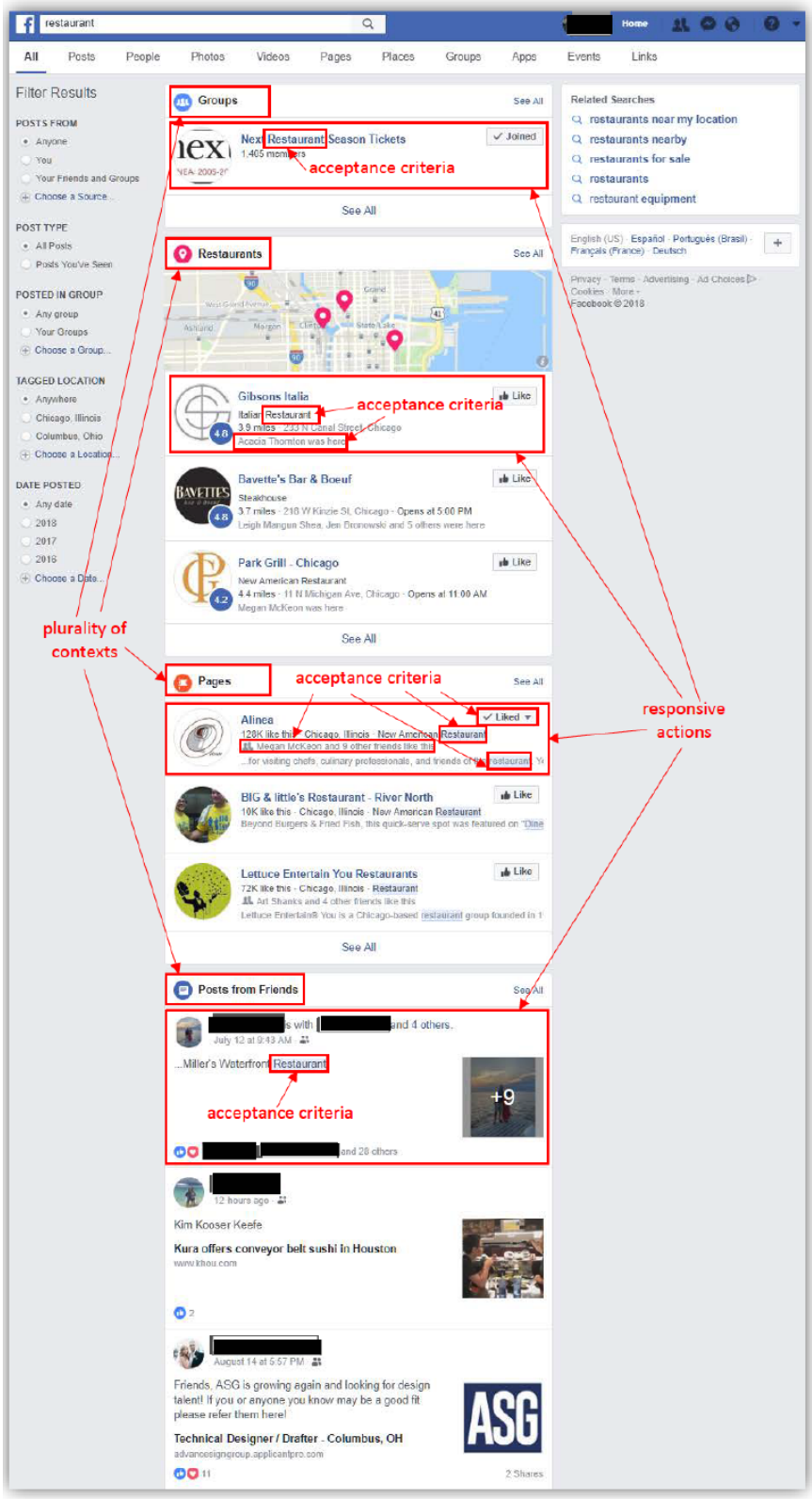
Prior to displaying search results responsive to receiving the user communication, Facebook's website retrieves first context information associated with the user, which includes but is not limited to:

- 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.

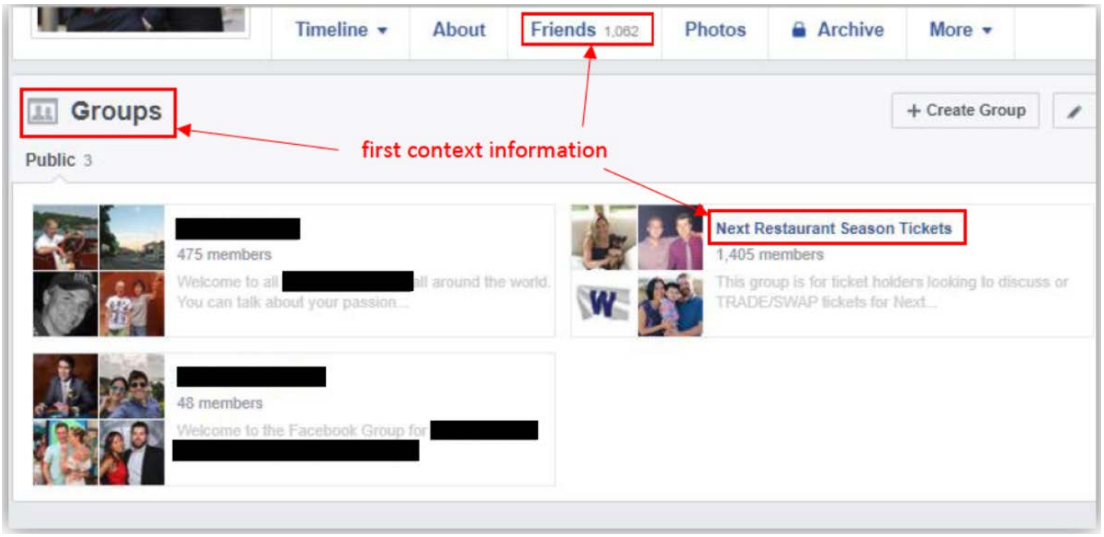


In the example depicted above, the acceptance criteria includes:

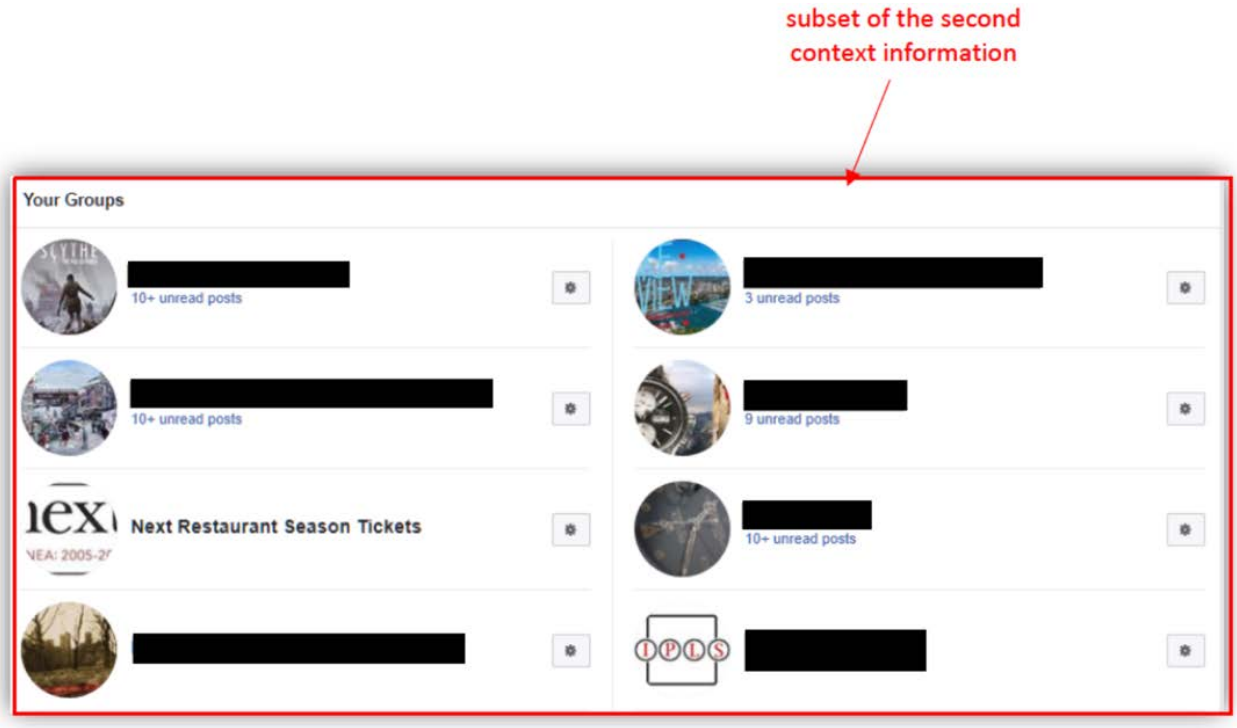
- information indicating groups liked by the user;

- 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(e): processing the first context information to identify a subset of the second context information, wherein the first context information comprises user-selected information to assist with satisfying the user communications from the user relative to the second context information—Facebook's website processes the first context information to identify a subset of the second context information, wherein the first context information comprises user-selected information to assist with satisfying the user communications from the user relative to the second context information. For instance, Facebook's website processes first context information (*e.g.*, information indicating the other users with whom the user is friends) to identify a subset of the second context information (*e.g.*, information associated with posts from friends). As another example, depicted below, Facebook's website processes the first context information



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

The first context information in the examples described and/or depicted above is user-selected information used to assist with satisfying the user communications from the user relative to the second context information. For instance, the information indicating the other users with whom the user is friends is user-selected information because, at some point prior to sending the user communication, the user selected to become friends with those other users. Likewise, at some point prior to sending the user communication, the user selected to join the "Next Restaurant Season Tickets" Group. Moreover, Facebook explains that "[y]ou can search for people, posts, photos, videos, places, Pages, Groups, apps, links and events on Facebook. Start searching with keywords (example: Caroline wedding) and you'll see a list of results that you can filter . . . You can also combine phrases together, or add things like locations, times, likes and interests to get more specific (ex: friends who live in San Francisco)." https://www.facebook.com/help/400002116752060. Accordingly, information indicating the other users with whom the user is friends and/or information indicating that the user has joined a particular Group is user-selected information used to assist with satisfying the user communications from the user relative to the second context information.

1(f): initiating a determination of the responsive actions that satisfy the user communication in the subset—Facebook's website initiates a determination of the responsive actions that satisfy the user communication in the subset. For instance, from among the universe of posts by the user's friends, Facebook's website initiates a determination of the responsive actions (*e.g.*, displaying text associated with the individual search results) that satisfy the user communication. Indeed, Facebook explains that:

> You see unique search results based on:
>
> - Your connections to people, places, things.

- 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").

1(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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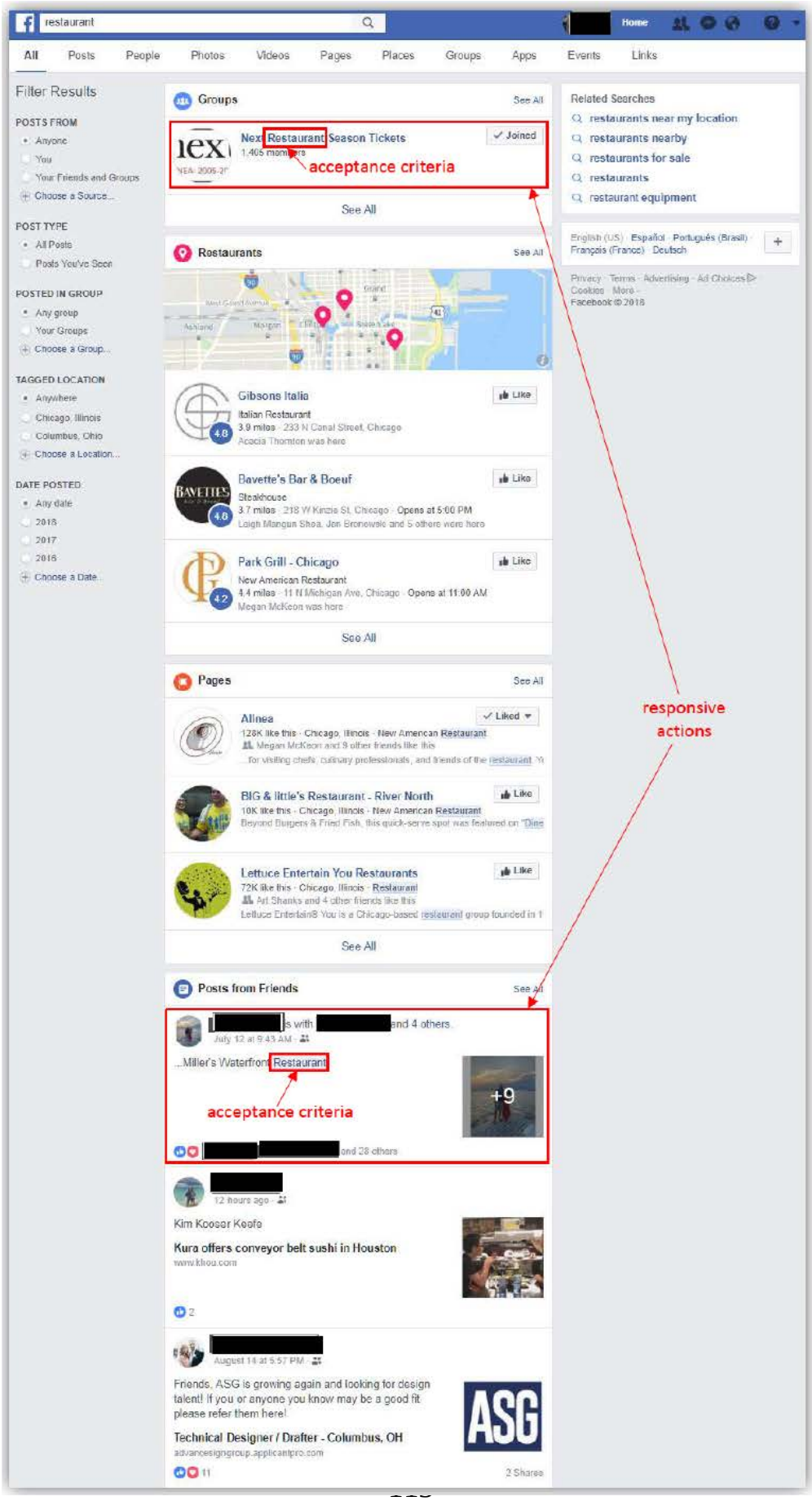
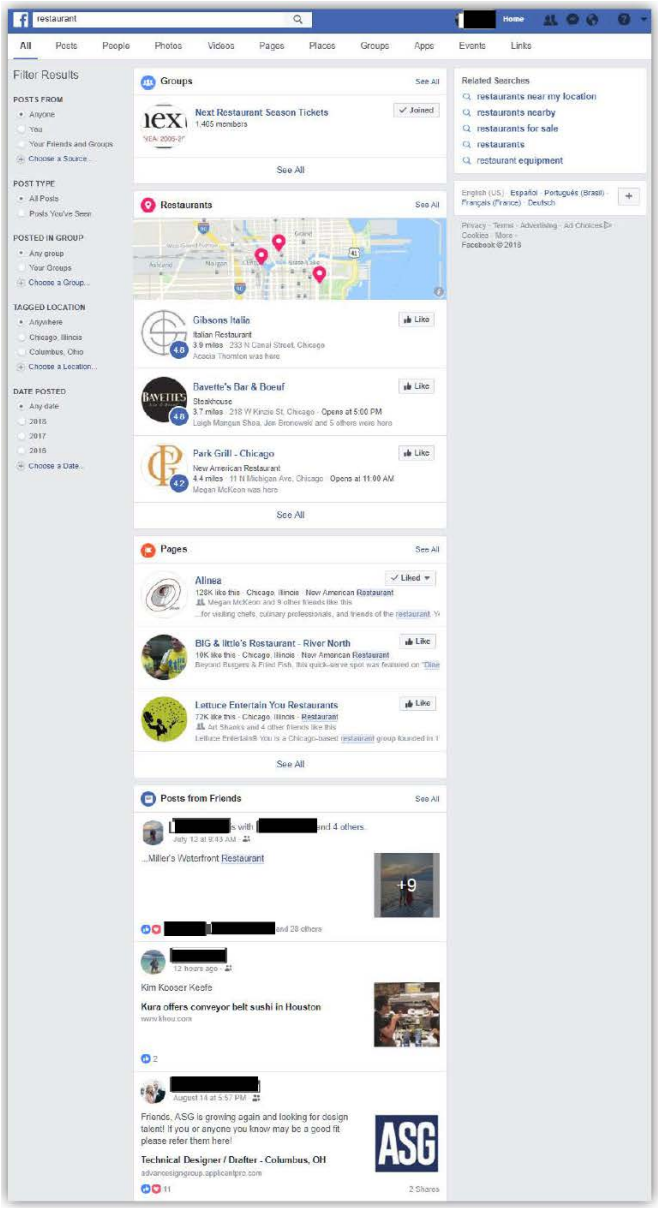
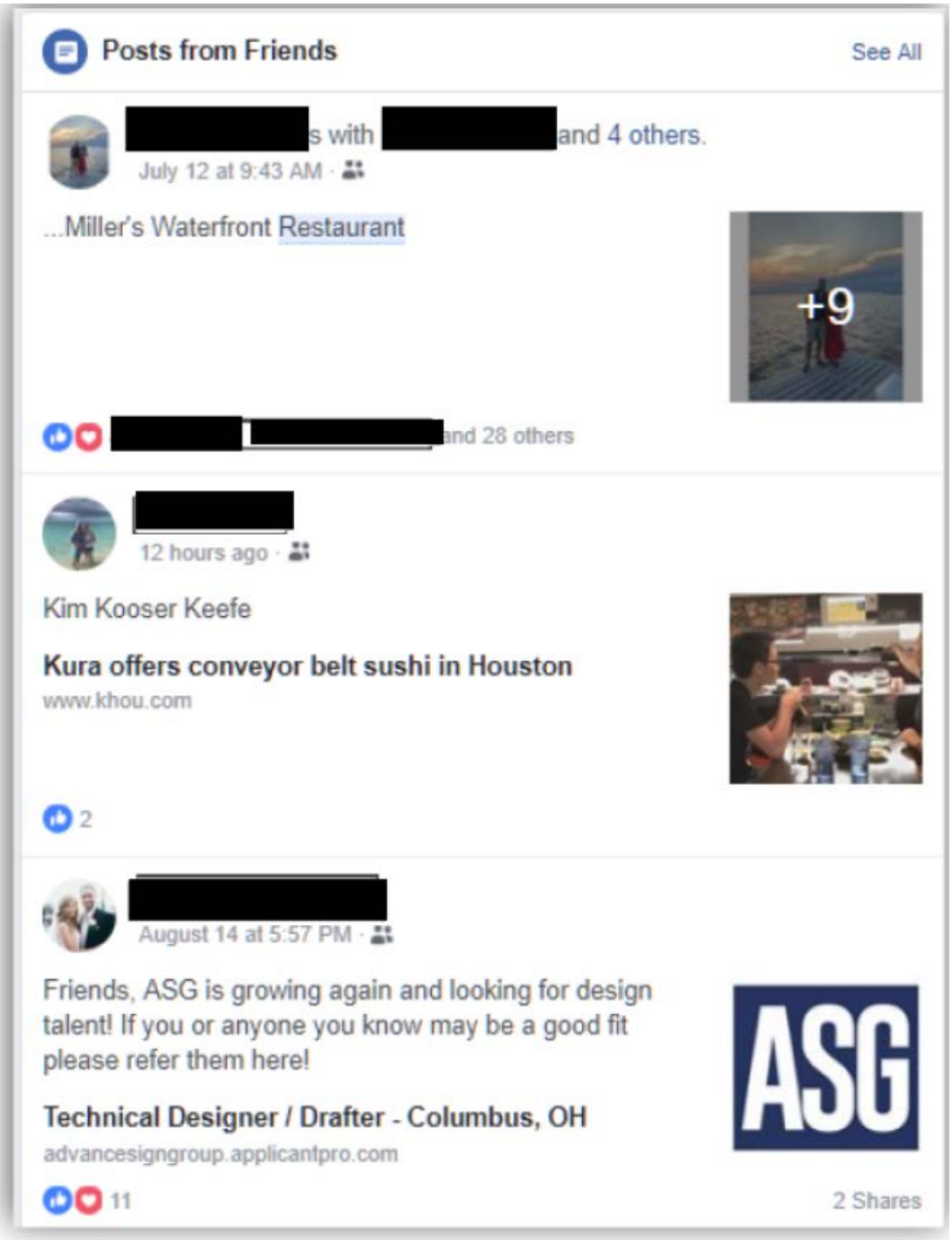

restaurant
Home
All
Posts
People
Photos
Videos
Pages
Places
Groups
Apps
Events
Links
Filter Results
POSTS FROM
Anyone
You
Your Friends and Groups
Choose a Source...
POST TYPE
All Posts
Posts You've Seen
POSTED IN GROUP
Any group
Your Groups
Choose a Group...
TAGGED LOCATION
Anywhere
Chicago, Illinois
Columbus, Ohio
Choose a Location...
DATE POSTED
Any date
2018
2017
2016
Choose a Date...
Groups
See All
Next Restaurant Season Tickets
Joined
acceptance criteria
See All
Related Searches
restaurants near my location
restaurants nearby
restaurants for sale
restaurants
restaurant equipment
Restaurants
See All
Gibsons Italia
Like
Italian Restaurant
3.9 miles · 233 N Canal Street, Chicago
Acacia Thornton was here
Bavette's Bar & Boeuf
Like
Steakhouse
3.7 miles · 218 W Kinzie St, Chicago · Opens at 5:00 PM
Park Grill - Chicago
Like
New American Restaurant
4.4 miles · 11 N Michigan Ave, Chicago · Opens at 11:00 AM
Megan McKeon was here
See All
Pages
See All
Alinea
Liked
128K like this · Chicago, Illinois · New American Restaurant
BIG & little's Restaurant - River North
Like
10K like this · Chicago, Illinois · New American Restaurant
Lettuce Entertain You Restaurants
Like
72K like this · Chicago, Illinois · Restaurant
See All
Posts from Friends
See All
and 4 others
July 12 at 9:43 AM
...Miller's Waterfront Restaurant
acceptance criteria
+9
and 28 others
12 hours ago
Kim Kooser Keefe
Kura offers conveyor belt sushi in Houston
www.kiirou.com
2
August 14 at 5:57 PM
Friends, ASG is growing again and looking for design talent! If you or anyone you know may be a good fit please refer them here!
Technical Designer / Drafter - Columbus, OH
advancesigngroup.applicantpro.com
ASG
11
2 Shares
responsive actions

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



In another example, depicted below, in which the user communication included a search query for "comedy," Facebook's website applied a ranking rule to the plurality of responsive actions (*e.g.*, displaying text associated with search results) and ranked the responsive action for displaying text associated with "Posts from Friends" higher than the responsive action for displaying text associated with "Groups."

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(i): subsequent to said applying the ranking rule, executing at least one of the plurality of responsive actions that satisfy the user communication, wherein the plurality of responsive actions comprise at least one of displaying response text, modifying the first context information, creating an object on a whiteboard space of the user, executing an operation, running a program, or interacting with one or more systems—Facebook's website, subsequent to said applying the ranking rule, executes at least one of the plurality of responsive actions that satisfy the user communication, wherein the plurality of responsive actions comprise at least one of displaying response text, modifying the first context information, creating an object on a whiteboard space of the user, executing an operation, running a program, or interacting with one or more systems. In particular, Facebook's website executed the responsive actions for displaying response text associated with the search results in accordance with the ranking rule previously applied. In the example depicted below, Facebook's website executed the responsive actions of, inter alia, displaying response text for "Next Restaurant Season Tickets" under the "Groups" context, and displaying response text for "Miller's Waterfront Restaurant" under the "Posts from Friends" context.

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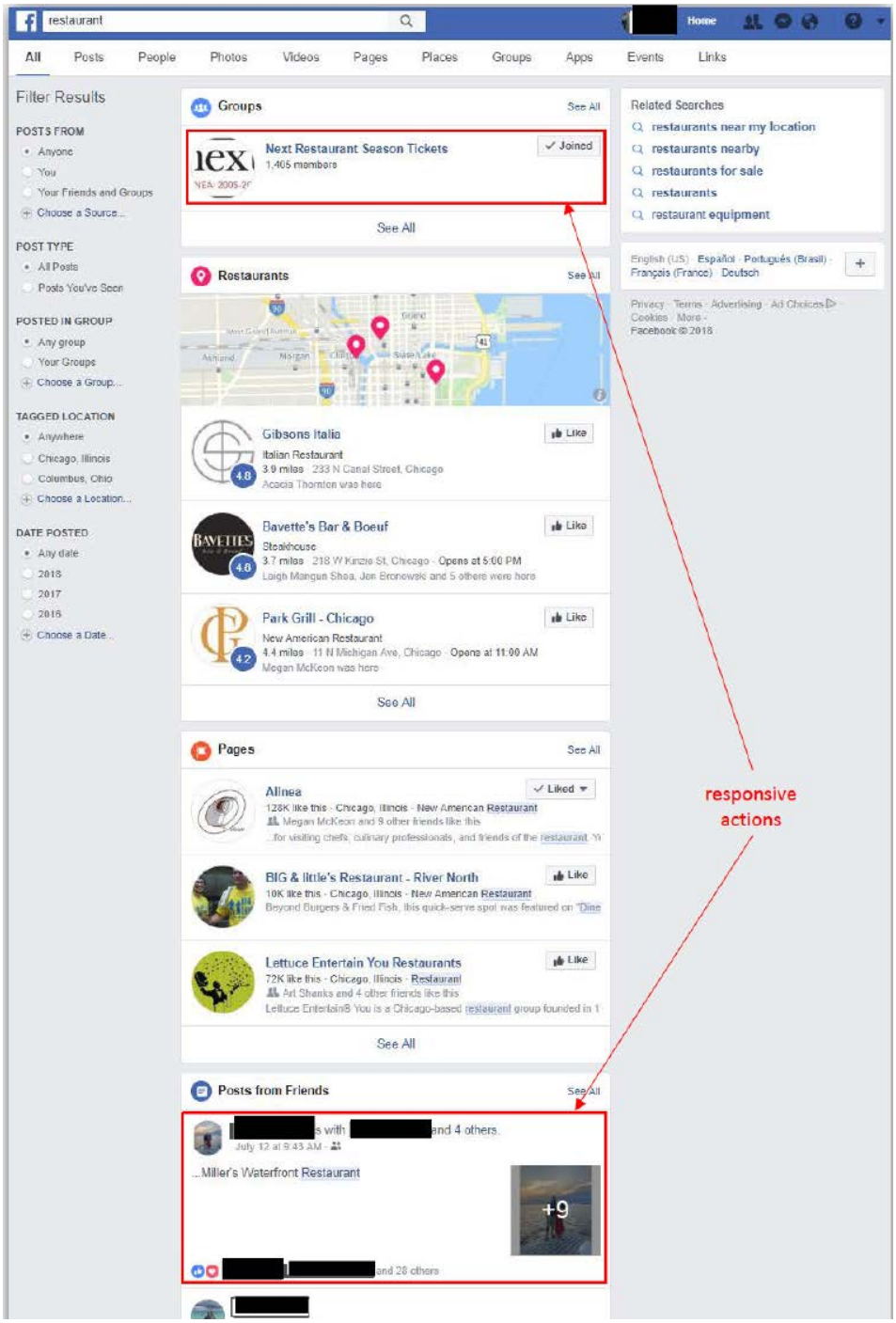
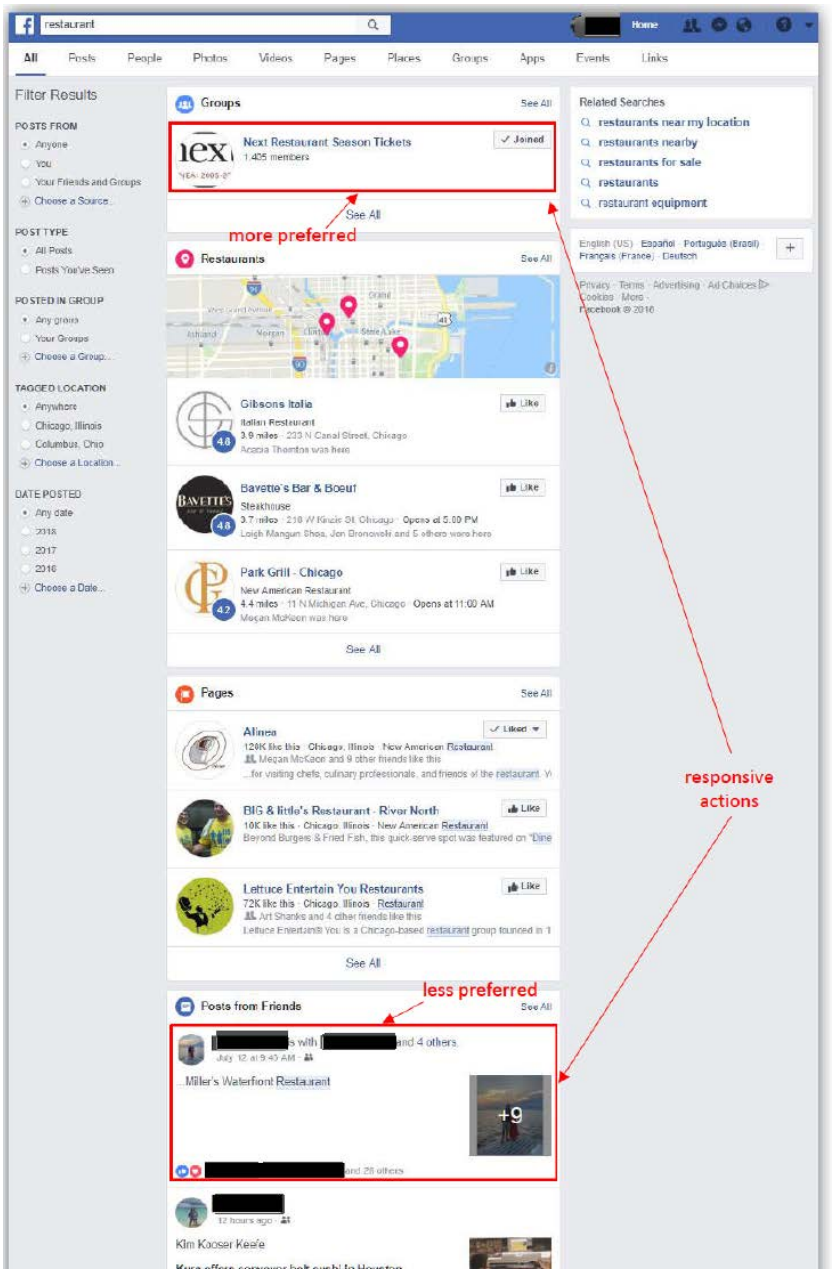
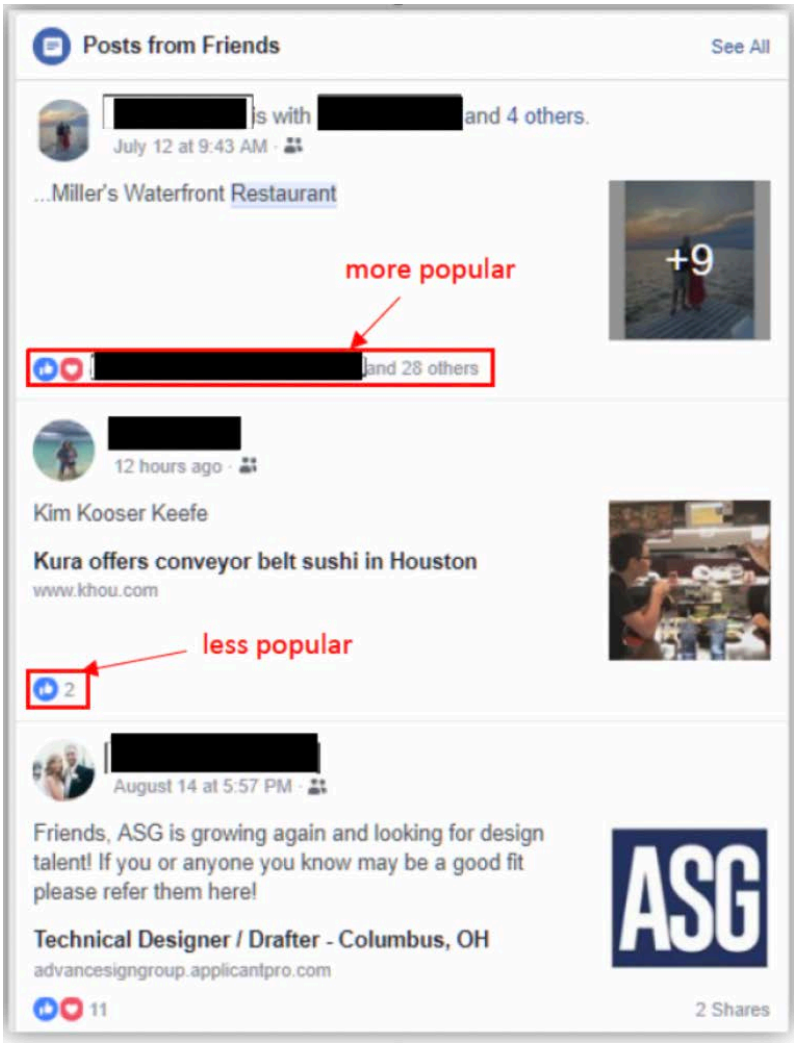


1(j): wherein the ranking rule comprises at least one of a most preferred rule, a most personal rule, a most popular rule, or a highest context count rule.—Facebook's website applies a ranking rule that includes at least one of a most preferred rule, a most personal rule, a most popular rule, or a highest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

website ranked the responsive action for displaying text associated with "Groups" higher than the responsive action for displaying text associated with "Posts from Friends." Facebook's website determined that the responsive action for displaying text associated with "Groups" was more preferred than the responsive action for displaying text associated with "Posts from Friends." As such, Facebook's website used a most preferred rule when it applied a ranking rule to the plurality of responsive actions that satisfy the user communication in this example.



In another example, in the "Posts from Friends" context, the "Miller's Waterfront Restaurant" post has 30 reactions (*e.g.*, likes, hearts, etc.), whereas the "conveyor belt sushi" post has two reactions. Because Facebook 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, Facebook used a most popular rule when it applied a ranking rule to the plurality of responsive actions that satisfy the user communication in this example.



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

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

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

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

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

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

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

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

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

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

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

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

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

PRAYER FOR RELIEF

WHEREFORE, Corrino respectfully requests:

A. That Judgment be entered that Facebook has infringed at least one or more claims of the Patents-in-Suit, directly and/or indirectly, literally and/or under the doctrine of equivalents;

B. An award of damages sufficient to compensate Corrino for Facebook's infringement under 35 U.S.C. § 284, including an enhancement of

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