

4. This Court has subject matter jurisdiction over this matter by virtue of 28 U.S.C. § 1338(a).

5. This Court has general personal jurisdiction over Facebook because Facebook maintains regular and established places of business in Texas. Facebook has multiple offices in Texas, including multiple, large offices in Austin, and a data center valued in excess of \$1 billion spread across more than 100 acres in Fort Worth.

6. Further, this Court has specific personal jurisdiction over Facebook in this action pursuant to due process and the Texas Long Arm Statute, because Facebook has committed acts giving rise to this action within Texas and within this judicial District. Defendant also regularly does business or solicits business in this District and in Texas, and engages in other persistent courses of conduct. The claims asserted herein arise out of or are related to Facebook's voluntary contacts with this forum, such voluntary contacts including but not limited to: (i) at least a portion of the actions complained of herein; (ii) purposefully and voluntarily placing one or more Accused Instrumentalities into the stream of commerce with the expectation that they will be used by consumers in this forum; or (iii) regularly doing or soliciting business, engaging in other persistent courses of conduct, or deriving substantial revenue from Accused Instrumentalities provided to individuals in Texas and in this District. Defendant has purposefully engaged in substantial, continuous, and systematic contacts within this District, and should reasonably expect to be sued in a court in this District. Given these contacts, the Court's exercise of jurisdiction over Defendant will not offend traditional notions of fair play and substantial justice.

7. Venue is proper in this Court by virtue of 28 U.S.C. § 1400(b), in that Facebook has committed acts of infringement in this District, and has regular and established places of business in this District.

8. Facebook maintains multiple offices in Austin, Texas, which it staffs with roughly 1,200 employees. *See* <https://www.bizjournals.com/austin/news/2019/09/04/first-look-facebookheadcount-swells-as-social.html> (last visited Jan. 30, 2020). Facebook recently opened an office at 607 W. Third St., Austin. This new office occupies 11 floors—accounting for 256,500 square feet of office space—and has room for 1,550 employees. Facebook also occupies four floors at 300 W. 6th St., Austin. *Id.* Facebook has additional offices within this District. *Id.* Facebook has maintained an office in Austin since at least 2010. *Id.* Facebook’s offices in this District house employees from at least twelve different Facebook teams, including: (1) software engineering; (2) enterprise engineering; (3) infrastructure; (4) data & analytics; (5) legal, finance, facilities & admin.; (6) sales & marketing; (7) global operations; and (8) design & user experience. *See* [https://www.facebook.com/careers/locations/austin/?locations\[0\]=Austin%2C%20TX](https://www.facebook.com/careers/locations/austin/?locations[0]=Austin%2C%20TX) (last visited Jan. 30, 2020). As of January 30, 2020, open Facebook positions in Austin included: engineering manager, global operations engineering; data engineer; hardware systems engineer; systems project manager, solutions; technology program manager; VP of partner operations; SMB marketing manager, global business marketing; and vertical marketing manager, e-commerce. Facebook has regular and established places of business in this District.

IV. BACKGROUND.

A. The Plaintiff MasterObjects and its Search Technology.

9. From the earliest days of Internet search, the search process has been hampered by what is known as the “request-response loop.” The user would type a query into a static input

field, click a “submit” or “search” button, wait for the query to be sent to a remote database, wait for the result set to be returned to the server, wait for the server to build an HTML page, wait for the page to load into the browser, and then wait for the client window to be redrawn so that the result set could be viewed. Inherent in the “request-response loop” is the pragmatic reality that, if the result set did not match user expectations, the entire process had to be repeated, iteratively, until the results satisfied the user.

10. Plaintiff MasterObjects is a software company founded by Mark Smit. Mr. Smit is a named inventor of each of the patents asserted here. In 1999 and 2000, Mr. Smit was a young computer scientist working on relational databases and complex document search and retrieval issues for a technology company near Amsterdam. He found the technology frustrating and slow, and thought he could do better. Accordingly, he left his job and put his life savings in a new company founded to develop better computer search technology. He called the company MasterObjects.

11. By the summer of 2001, Mr. Smit had conceived of a new computer search paradigm. He created a way to have instant search results provided as the user typed in characters in a search request. Mr. Smit’s technique uses asynchronous communications between the user’s computer and the server performing the search. In the old search model, the communication was “synchronous,” *i.e.*, the server would sit idle until the user hit submit, whereupon the server would do its work, and then return the information to the client. As the client worked, the server waited; as the server communicated, the client waited.

12. To break this “request-response loop,” Mr. Smit understood that he needed a new way to communicate that was asynchronous, *i.e.*, the client and the server could talk to each other within a session in a non-blocking way. In other words, the server and the client could

communicate at the same time rather than the server waiting until the client finished and vice versa.

13. Mr. Smit also envisioned that the servers would store common prior search queries and related results. Storing this information, along with the asynchronous communication, allowed the computer system to quickly associate a few characters of a new request with a pre-existing model of the same request and results thereto, and provide suggested results right away. For example, as a user searching for information about an indoor arena in Manhattan types, “mad” becomes “madi,” then later “madison sq,” and then out pops search results for “madison square garden.” As the user types in a query, the server provides increasingly relevant and responsive information (*e.g.*, information relating to Mad Magazine, then James Madison, then Madison Square Garden). These inventive techniques provide useful search results much faster and more efficiently than prior computer systems, improving computer system functionality, and thereby providing a sophisticated digital search platform.

14. The patents asserted in this lawsuit embody Mr. Smit’s inventions. The claimed features are not merely well-understood, routine, and conventional computer functions; rather, they are novel and distinct improvements on the prior approaches known in the art. These novel claimed features improve the functioning of the computer system that implements them. For example, the asynchronous communication feature improves the operation of both the client computer and the server by allowing the two to communicate at the same time, thereby reducing latency and improving the timeliness of results. As another example, storing prior search queries and related results improves the operation of both the client computer and the server system by enabling common search requests and results to be retrieved quickly while utilizing fewer system resources to accomplish this task. As another example, displaying relevant search results in real

time (e.g., while the user is entering the query) improves the operation of the client computer by enabling it to provide more accurate and timely results to users while bypassing the slow and frustrating “request-response loop” common in prior systems.

B. The Patents-In-Suit.

15. The patents asserted here are MasterObjects’: (1) U.S. Patent No. 8,539,024 (the “’024 Patent”), entitled “System and Method for Asynchronous Client Server Session Communication;” (2) United States Patent No. 9,760,628 (the “’628 Patent”), entitled “System and Method for Asynchronous Client Server Session Communication;” (3) United States Patent No. 10,311,073 (the “’073 Patent”), entitled “System and Method for Asynchronous Retrieval of Information From a Server to a Client Based On Incremental User Input;” and (4) United States Patent No. 10,394,866 (the “’866 Patent”), entitled “System and Method for Asynchronous Client Server Session Communication,” collectively, the “Patents-in-Suit.”

16. Each of the Patents-in-Suit have been assigned to MasterObjects. Plaintiff MasterObjects is the sole legal and rightful owner of each of the Patents-in-Suit.

17. The ’024 Patent was duly and legally issued on September 17, 2013. A true and correct copy of the ’024 Patent is attached as Exhibit A. The ’024 Patent covers sending a full input string. Under claim 1, for example, a client object sends query messages to the server system, with the term “query messages” representing the lengthening string of characters. *See* Claim 1, ’024 Patent (“a server system, including one or more computers, which is configured to receive query messages from a client object . . . whereby the query messages represent the lengthening string . . .”).

18. The ’024 Patent has been the subject of prior proceedings, including *MasterObjects, Inc. v. Google Inc.*, No. 4:15-cv-01775-PJH (N.D. Cal.), *MasterObjects, Inc. v.*

Yahoo! Inc., No. 3:13-cv-04326-JSW (N.D. Cal.), *MasterObjects, Inc. v. eBay Inc.*, No. 06824-JSW (N.D. Cal.), and *eBay Inc. v. MasterObjects, Inc.*, IPR2017-00740 (Pat. Trial & App. Board) (the “*eBay IPR*”).

19. The *eBay IPR* was an *inter partes* review involving ’024 Patent claims 1-3, 6-7, 9, 12, 15-17, 21, 24-26, and 32-37. All of the ’024 Patent’s independent claims were involved claims. The Patent Trial and Appeal Board (“PTAB”) issued a Final Written Decision finding all of the involved claims patentable. A true and correct copy of the Final Written Decision is attached as Exhibit B. The PTAB found that Kravets (U.S. Patent No. 6,704,727) did not anticipate involved claims; that involved claims were non-obvious over Kravets; and that involved claims were non-obvious over the combination of Kravets and Bauer (U.S. Patent No. 6,751,603). The PTAB found that the ’024 Patent’s independent claims recite specific “usability test[s],” and that Kravets does not disclose or teach the claimed tests.

20. eBay Inc. appealed the Final Written Decision to the Federal Circuit. The parties to the *eBay IPR* jointly moved to voluntarily dismiss the appeal. The Federal Circuit dismissed the appeal. An *inter partes* review certificate issued on June 11, 2019. The IPR certificate confirmed the patentability of the involved ’024 Patent claims.

21. The ’628 Patent was duly and legally issued on September 12, 2017. A true and correct copy of the ’628 Patent is attached as Exhibit C.

22. The ’073 Patent was duly and legally issued on June 4, 2019. A true and correct copy of the ’073 Patent is attached as Exhibit D. On December 6, 2019, MasterObjects filed a Petition to Correct Priority Under 37 CFR § 1.78(e) relating to the ’073 Patent. See Exhibit E. On February 14, 2020, MasterObjects filed a Petition Under 37 CFR §1.182 for Expedited

Handling of its 37 CFR § 1.78(e) Petition. On February 25, 2020, the U.S. Patent and Trademark Office (the “P.T.O.”) granted both petitions. *See* Exhibit F.

23. After the initiation of this action, a petition for *inter partes* review of claims 1, 2 and 4-12 of the ’073 Patent was filed by Unified Patents, LLC. This *inter partes* review proceeding was styled *United Patents, LLC v. MasterObjects, Inc.*, IPR2020-01201 (Pat. Trial & App. Board) (the “*Unified IPR*”). On January 11, 2021, the PTAB denied institution of the *Unified IPR*. *See* Exhibit G.

24. The ’866 Patent was duly and legally issued on August 27, 2019. A true and correct copy of the ’866 Patent is attached as Exhibit H. On December 6, 2019, MasterObjects filed a Petition to Correct Priority Under 37 CFR § 1.78(e) relating to the ’866 Patent. *See* Exhibit I. On February 14, 2020, MasterObjects filed a Petition Under 37 CFR §1.182 for Expedited Handling of its 37 CFR § 1.78(e) Petition. On February 25, 2020, the P.T.O. granted the 37 CFR §1.182 Petition and dismissed the 37 CFR § 1.78(e) Petition. *See* Exhibit J. The P.T.O. decided that MasterObjects had “timely made a claim for benefit of priority by submitting within the time period set forth at 37 CFR 1.78(d) an application data sheet identifying the applications for which the benefit of priority was sought by application number (series code and serial number) and relationship As the application data sheet properly identified the applications for which priority was sought by application number and relationship, a filing receipt reflective of the acceptance of the claim was issued.” *Id.* “In view thereof, a petition under 37 CFR 1.78” was deemed “not necessary” by the P.T.O. *See id.*

25. The ’866 Patent is a continuation of the ’628 Patent, and the ’628 Patent is a continuation of the ’024 Patent. The ’024 Patent is a continuation of MasterObjects’ U.S. Patent No. 8,112,529 (the ’529 Patent). The ’073 Patent is related to the ’866 Patent’s great-

grandparent, the '529 Patent. All asserted claims, including all asserted '073 Patent claims, are entitled to the benefit of the '529 Patent's filing date. *See* MasterObjects' Preliminary Infringement Contentions and MasterObjects' First Amended Infringement Contentions (collectively, the "Infringement Contentions").

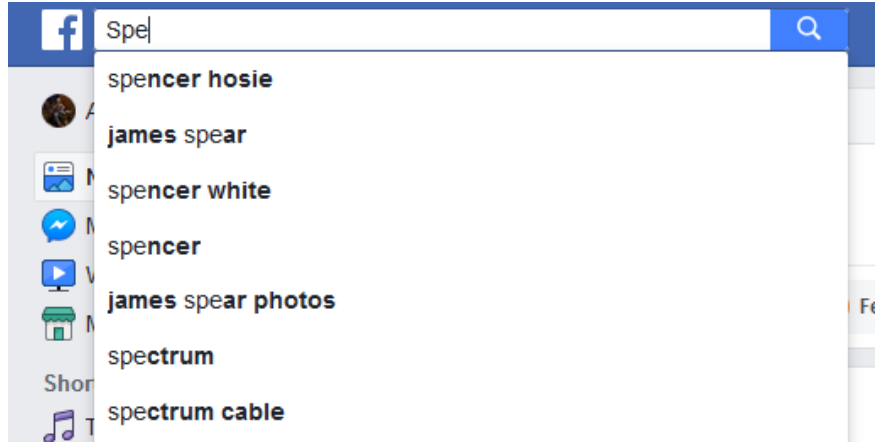
C. The Infringing Facebook Instrumentalities.

26. Facebook's predictive search, both for its full website and mobile website ("Facebook Predictive Search"), including at least the functionality known as Facebook Typeahead, as supported by Facebook's backend system known as Unicorn, infringes claims of the Patents-in-Suit.

27. In addition, Facebook's predictive search for client applications and platforms it makes, sells, and/or distributes, including the Facebook applications for the iOS and Android mobile phone platforms ("Facebook Applications"), including at least the functionality known as Facebook Typeahead, as supported by Facebook's backend system known as Unicorn, infringes claims of the Patents-in-Suit.

28. Facebook Predictive Search and Facebook Applications (collectively the "Accused Instrumentalities") meet all the elements of claims of the Patents-in-Suit. Facebook infringes the Patents-in-Suit.

29. Exemplary illustrations of aspects of Facebook Predictive Search are below:



Headers Cookies Params Response Timings Stack Trace Security

Filter request parameters

Query string

fb_dtsg_ag: AQyhsQUIR4Zz2-csA96odO6q5IPsv_t8HjASEdUJBCAb9A: AQyG111EJoqqdqBULStxsCzoLMeAsNggUeT3CTr-tw5Ew

value: ["Spe"]

context: facebar

grammar_version: bee09f93fa732cfa59a1cb6d9f450d3892424e49

content_search_mode:

viewer: 8344495

rsp: search

qid: 6

max_results: 8

sid: 0.024759210684079158

__user: 8344495

__a: 1

__dyn: 7AgNe-4amaxx2u6aJGeFqxqewRyWzEy4aheC267Uqzob4q2i5U4e2C3-7WYUrxuEbbYejKewXGu3yaUS254ogU9A69UKz8nXm1Dxa2m4o6e2fwmWxW5o7Cum1owhEpKEsgoxu6Uao4a3mbx-2KdU5XxGf-Egy86CER7xa4oC2bK6Uylxty6qxmcGECmVojzUivEtxG5od8yEqUpxCbh4ax3zHAy8aElxeaCyXwPxe8K6axq2i3yeCUO5AbxS227Ua8

__req: w

__be: 1

__pc: PHASED:ufi_home_page_pkg

dpr: 1

__rev: 4682076

jazoest: 27930

__spin_r: 4682076

__spin_b: trunk

__spin_t: 1547483734

Headers Cookies Params Response Timings Stack Trace Security

Request URL: https://www.facebook.com/typeahead/search/facebar/query/?fb_dtsg_ag=AQyhsQUIR4Zz2-csA96odO6q5IPsv_t8HjASEdUJBCAb9A: AQyG111EJoqqdqBULStxsCzoLMeAsNggUeT3CTr-tw5Ew

Request method: GET

Remote address: 31.13.93.35:443

Status code: 200 OK Edit and Resend Raw headers

Version: HTTP/2.0

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1 for (;;){\"__ar\":1,\"payload\":{\"entities\":[],\"results\":[{\"name\":\"spencer\",\"type\":\"key

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V. NOTICE AND WILLFULNESS.

30. The allegations of each foregoing paragraph are incorporated by reference as if fully set forth herein.

31. Facebook has been on constructive notice of the Patents-in-Suit. MasterObjects ceased product sales by at least January 2013. The Patents-in-Suit all issued after January 2013. More, MasterObjects' website states that its technology is protected by the '024 Patent. Further, prior to this action, the '628, '073 and '866 Patents were not asserted. MasterObjects has complied with, and/or MasterObjects need not comply with, 35 U.S.C. § 287(a).

32. Facebook has been on notice of MasterObjects since at least March 2012. *See* Facebook's Response (Jan. 13, 2021) to MasterObjects' Interrogatory No. 2 ("An employee of Facebook, Alma Chao, spoke with representatives for MasterObjects via telephone in March 2012").

33. On information and belief, Facebook has been on notice of the '024 Patent specifically since at least February 2015.

34. In February 2015, a P.T.O. patent examiner cited MasterObjects' U.S. Patent Application No. 12/176,984 (U.S. Pub. No. 2009/0006543) (the "'984 Application") to Facebook, during the prosecution of a Facebook predictive search patent, U.S. Patent No. 9,047,364: "The prior art made of record and not relied upon is considered pertinent to

applicant’s disclosure... Smit US 2009/0006543.” Days later, the same examiner again drew Facebook’s attention to the ’984 Application, when he cited it during the prosecution of another Facebook predictive search patent, U.S. Patent No. 9,053,173: “The prior art made of record and not relied upon is considered pertinent to applicant’s disclosure... Smit US 2009/0006543.” These cites to MasterObjects’ patent application came in two two-page, double-spaced, Statements of Reasons for Allowance. In both Statements, the ’984 Application was cited second among seven references. The references appeared in the Statements’ conclusions under separate paragraph numbers:

| <i>Conclusion</i> | | | <i>Conclusion</i> | | |
|-------------------|---|-----------------|-------------------|---|-----------------|
| 6. | The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. | | 6. | The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. | |
| 7. | Gross et al. | US 2004/0133564 | 7. | Gross et al. | US 2004/0133564 |
| 8. | Smit | US 2009/0006543 | 8. | Smit | US 2009/0006543 |
| 9. | Gross et al. | US 2008/0133487 | 9. | Gross et al. | US 2008/0133487 |
| 10. | Basso et al. | US 2003/0009453 | 10. | Basso et al. | US 2003/0009453 |
| 11. | Burnett | US 2002/0087408 | 11. | Burnett | US 2002/0087408 |
| 12. | Gross et al. | US 8,498,977 | 12. | Gross et al. | US 8,498,977 |
| 13. | Bogdan | US 6,169,984 | 13. | Bogdan | US 6,169,984 |

35. The ’073 Patent—asserted here—is a continuation of the ’984 Application. The ’024 Patent—also asserted here—is a continuation of U.S. Application No. 09/933,493 (the “’529 Patent’s Application”). The ’529 Patent’s Application is listed on the face of the ’984 Application: “which is a continuation-in-part of application No. 09/933,493,” and in the ’984 Application’s first paragraph: “which is a continuation-in-part of U.S. patent application Ser. No. 09/933,493.” The ’024 Patent issued on September 17, 2013. The ’024 Patent existed as an issued patent at the time the examiner of Facebook’s predictive search patents directed Facebook to MasterObjects’ patent family.

36. When Facebook received, in March 2015, the second Statement of Reasons for Allowance citing MasterObjects’ ’984 Application, Facebook had multiple applications related to its 9,047,364 and 9,053,173 patents pending. For example, the application for U.S. Patent No.

9,171,064 was pending. The P.T.O. did not issue a notice of allowance for U.S. Patent No. 9,171,064's application until April 14, 2015.

37. After Facebook received the second Statement of Reasons for Allowance citing MasterObjects' '984 Application, Facebook filed, on May 1, 2015, its application for U.S. Patent No. 9,852,126. (Facebook filed an application which claims the benefit of its U.S. Patent No. 9,852,126 as late as December 2017.) U.S. Patent No. 9,852,126 is from the same predictive search patent family (the "Mehanna Family") as Facebook's 9,047,364 and 9,053,173 patents. On July 28, 2015, as part of its prosecution of its 9,852,126 patent, Facebook filed an Information Disclosure Statement in which it identified the '984 Application. This Information Disclosure Statement was signed by "Kelly R. Preece." The prior Statements of Reasons for Allowance were addressed to "Keller Jolley Preece/Facebook." By July 2015, Facebook had read the 9,047,364 and 9,053,173 patents' Statements of Reasons for Allowance and taken an interest in the '984 Application.

38. On this record, it is inconceivable that Facebook did not do due diligence on the '984 Application and its family by at least mid-2015, and thereby discover the already issued '024 Patent by at least that date (in addition to the then pending application for the '628 Patent, which is a continuation of the '024 Patent).

39. Despite having spoken to MasterObjects in 2012, and having been on notice of the issued '024 Patent since at least 2015, Facebook infringed and continues to infringe the '024 Patent. Facebook's infringement of the '024 Patent is willful.

40. To the extent Facebook was not already on notice of each Patent-in-Suit, the Original Complaint (ECF 1) filed in this action put Facebook on notice of each Patent-in-Suit. MasterObjects filed its Original Complaint on February 5, 2020. Facebook was served with the

Original Complaint by February 12, 2020. The Original Complaint attached each Patent-in-Suit in addition to the *eBay IPR* Final Written Decision. (Facebook was also served with MasterObjects' Preliminary Infringement Contentions on May 15, 2020 and MasterObjects' First Amended Infringement Contentions on January 15, 2021.)

41. Facebook has willfully infringed pre- and post-suit initiation, and Facebook continues to willfully infringe. Facebook's conduct is egregious.

42. For example, Facebook's prosecution of the Mehanna Family, which includes U.S. Patent Nos. 9,047,364, 9,053,173, 9,171,064 and 9,852,126, and their eleven issued relatives, evidence Facebook's belief that the Patents-in-Suit are novel, non-obvious, and otherwise patentable. The Mehanna Family includes broad predictive search claims. The Mehanna Family post-dates MasterObjects' patent family. It follows that when Facebook represented to the P.T.O. that its predictive search patents were patentable over the prior art, it understood that the art as it existed even earlier did not disclose MasterObjects' inventions. Facebook does not harbor a good faith belief that the Patents-in-Suit (which are valid) are invalid.

43. By way of further example, Facebook's knowledge that the Patents-in-Suit are valid is further evidenced by a comparison of the '024 and '628 Patent's prosecution histories with Facebook's Preliminary (dated July 10, 2020) and Final (dated January 15, 2021) Invalidity Contentions. In both sets of invalidity contentions, and as of the filing of this Amended Complaint, Facebook asserts just two allegedly anticipatory references: Kravets and Trower (U.S. Patent No. 6,922,810). The Patents-in-Suit's prosecution history shows Facebook's reliance on these references to be untenable and in bad faith.

44. With respect to Kravets, as explained above, every independent '024 Patent claim was involved in an IPR where the petitioner asserted that Kravets was anticipatory. *See* ¶ 19 above. As further explained above, the PTAB rejected the petitioner's assertion in a Final Written Decision. *See* ¶¶ 19-20. The P.T.O. then issued an *inter partes* review certificate, certifying that: "as a result of the inter partes review proceeding, it has been determined that: Claims 1-3, 6-7, 9, 12, 15-17, 21, 24-26 and 32-37 are found patentable." *See* Exs. A & B. The Final Written Decision is dated July 25, 2018, and the *inter partes* review certificate June 11, 2019. Both are publicly available documents, and both were attached to MasterObjects' Original Complaint. Yet, Facebook's infringement continued and continues unabated, and Facebook maintains its litigation position that Kravets is anticipatory.

45. With respect to Trower, a P.T.O. examiner, during the '628 Patent's *ex partes* prosecution, rejected every then pending claim of the '628 Patent's application as anticipated by Trower. MasterObjects then traversed this rejection, and the '628 Patent went on to issue. The P.T.O. specifically evaluated Trower and determined it was not anticipatory. The relevant office action and reply are publicly available, and MasterObjects produced these documents in this action on May 15, 2020. Yet, Facebook's infringement continued and continues unabated, and Facebook maintains its litigation position that Trower is anticipatory.

46. Other examples of Facebook's egregious conduct include, but are not limited to, its bad faith inequitable conduct allegations and its ambushing MasterObjects with its now rejected collateral estoppel "query message" argument during claim construction briefing (this affirmative defense should have been disclosed prior through Facebook's Original and First Amended Answers to the Original Complaint).

VI. CLAIMS.

A. Infringement of United States Patent No. 8,539,024.

47. MasterObjects repeats, realleges, and incorporates by reference, as if fully set forth herein, the allegations of paragraphs 1 to 46 above.

48. Facebook infringes claims of the '024 Patent. *See, e.g.,* Infringement Contentions. Facebook, without authority, makes, uses, imports, offers to sell, and/or sells instrumentalities that practice inventions covered by claims of the '024 Patent. Facebook Predictive Search and/or Facebook Applications meet all of the elements of claims of the '024 Patent, including, all the elements of the '024 Patent, Claim 1. Facebook controls and benefits from each Facebook Predictive Search and/or Facebook Applications element that meets each limitation of at least '024 Patent, Claim 1. Facebook has been, is currently, and continues to, directly infringe at least Claim 1 of the '024 Patent in violation of 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, through Facebook Predictive Search and/or Facebook Applications, that practice the inventions disclosed in the '024 Patent.

49. Facebook's infringement of the '024 Patent has been and continues to be willful and deliberate, and Facebook's conduct has been and continues to be egregious. *See* ¶¶ 32 to 46 above.

50. As a result of the infringement by Facebook, MasterObjects has been damaged, and will continue to be damaged, until Facebook is enjoined from further acts of infringement.

51. Facebook will continue to infringe unless enjoined by this Court. MasterObjects faces real, substantial and irreparable damage and injury of a continuing nature from infringement for which MasterObjects has no adequate remedy at law.

B. Infringement of United States Patent No. 9,760,628.

52. MasterObjects repeats, realleges, and incorporates by reference, as if fully set forth herein, the allegations of paragraphs 1 to 46 above.

53. Facebook infringes claims of the '628 Patent. *See, e.g.,* Infringement Contentions. Facebook, without authority, makes, uses, imports, offers to sell, and/or sells instrumentalities that practice inventions covered by claims of the '628 Patent. Facebook Predictive Search and/or Facebook Applications meet all of the elements of claims of the '628 Patent, including, all the elements of the '628 Patent, Claim 13. Facebook controls and benefits from each Facebook Predictive Search and/or Facebook Applications element that meets each limitation of at least '628 Patent, Claim 13. Facebook has been, is currently, and continues to, directly infringe at least Claim 13 of the '628 Patent in violation of 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, through Facebook Predictive Search and/or Facebook Applications, that practice the inventions disclosed in the '628 Patent.

54. Facebook's infringement of the '628 Patent has been and continues to be willful and deliberate, and Facebook's conduct has been and continues to be egregious. *See* ¶¶ 32 to 46 above.

55. As a result of the infringement by Facebook, MasterObjects has been damaged, and will continue to be damaged, until Facebook is enjoined from further acts of infringement.

56. Facebook will continue to infringe unless enjoined by this Court. MasterObjects faces real, substantial and irreparable damage and injury of a continuing nature from infringement for which MasterObjects has no adequate remedy at law.

C. Infringement of United States Patent No. 10,311,073.

57. MasterObjects repeats, realleges, and incorporates by reference, as if fully set forth herein, the allegations of paragraphs 1 to 46 above.

58. Facebook infringes claims of the '073 Patent. *See, e.g.*, Infringement Contentions. Facebook, without authority, makes, uses, imports, offers to sell, and/or sells instrumentalities that practice inventions covered by claims of the '073 Patent. Facebook Predictive Search and/or Facebook Applications meet all of the elements of claims of the '073 Patent, including, all the elements of the '073 Patent, Claim 1. Facebook performs each Facebook Predictive Search and/or Facebook Applications step that meets each limitation of at least '073 Patent, Claim 1. Facebook has been, is currently, and continues to, directly infringe at least Claim 1 of the '073 Patent in violation of 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, through Facebook Predictive Search and/or Facebook Applications, that practice the inventions disclosed in the '073 Patent.

59. Facebook's infringement of the '073 Patent has been and continues to be willful and deliberate, and Facebook's conduct has been and continues to be egregious. *See* ¶¶ 32 to 46 above.

60. As a result of the infringement by Facebook, MasterObjects has been damaged, and will continue to be damaged, until Facebook is enjoined from further acts of infringement.

61. Facebook will continue to infringe unless enjoined by this Court. MasterObjects faces real, substantial and irreparable damage and injury of a continuing nature from infringement for which MasterObjects has no adequate remedy at law.

D. Infringement of United States Patent No. 10,394,866.

62. MasterObjects repeats, realleges, and incorporates by reference, as if fully set forth herein, the allegations of paragraphs 1 to 46 above.

63. Facebook infringes claims of the '866 Patent. *See, e.g.*, Infringement Contentions. Facebook, without authority, makes, uses, imports, offers to sell, and/or sells

instrumentalities that practice inventions covered by claims of the '866 Patent. Facebook Predictive Search and/or Facebook Applications meet all of the elements of claims of the '866 Patent, including, all the elements of the '866 Patent, Claim 1. Facebook performs each Facebook Predictive Search and/or Facebook Applications step that meets each limitation of at least '866 Patent, Claim 1. Facebook has been, is currently, and continues to, directly infringe at least Claim 1 of the '866 Patent in violation of 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, through Facebook Predictive Search and/or Facebook Applications, that practice the inventions disclosed in the '866 Patent.

64. Facebook's infringement of the '866 Patent has been and continues to be willful and deliberate, and Facebook's conduct has been and continues to be egregious. *See* ¶¶ 32 to 46 above.

65. As a result of the infringement by Facebook, MasterObjects has been damaged, and will continue to be damaged, until Facebook is enjoined from further acts of infringement.

66. Facebook will continue to infringe unless enjoined by this Court. MasterObjects faces real, substantial and irreparable damage and injury of a continuing nature from infringement for which MasterObjects has no adequate remedy at law.

VII. PRAYER FOR RELIEF.

WHEREFORE, MasterObjects prays for entry of judgment as follows:

67. Judgment in MasterObjects's favor and against Facebook on all causes of action alleged herein;

68. That the Patents-in-Suit are valid and enforceable;

69. That Facebook has infringed one or more claims of each of the Patents-in-Suit;

70. That Facebook's infringement of the Patents-in-Suit was willful;

71. That Facebook account for and pay to MasterObjects all damages caused by the infringement of the Patents-in-Suit, which by statute can be no less than a reasonable royalty with respect to each Patent-in-Suit;

72. That the damages to MasterObjects with respect to each Patent-in-Suit be increased by three times the amount found or assessed pursuant to 35 U.S.C. § 284 and that Facebook account for and pay to MasterObjects the increased amounts;

73. That this be adjudicated an exceptional case and MasterObjects be awarded its attorneys' fees in this action pursuant to 35 U.S.C. § 285;

74. That this Court issue preliminary and final injunctions enjoining Facebook, its officers, agents, servants, employees and attorneys, and any other person in active concert or participation with them, from continuing the acts herein complained of with respect to infringement of the Patents-in-Suit, and more particularly, that Facebook and such other persons be permanently enjoined and restrained from further infringing the Patents-in-Suit;

75. That MasterObjects be granted pre-judgment and post-judgment interest on the damages caused to it by reason of Facebook's conduct at the maximum legal rates provided by statute or law;

76. That this Court award MasterObjects its costs and disbursements in this civil action, including reasonable attorneys' fees; and

77. That MasterObjects be granted such other and further relief as this Court may deem just and proper under the circumstances.

VIII. JURY DEMAND

78. MasterObjects demands a jury trial on all causes of action, claims, or issues in this action that are triable as a matter of right to a jury.

Dated February 12, 2021

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that the foregoing document was served on all counsel of record via email on this the 12th day of February, 2021.

/s/ Alden G. Harris
Alden G. Harris