

EXHIBIT 3

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14 UNITED STATES DISTRICT COURT
15 NORTHERN DISTRICT OF CALIFORNIA

17 MATTHEW CAMPBELL and MICHAEL
18 HURLEY, on behalf of themselves and all
others similarly situated,

19 Plaintiffs,

20 v.

21 FACEBOOK, INC.,

22 Defendant.

Case No. C 13-05996 PJH (SK)

**PLAINTIFFS' MOTION TO COMPEL
PRODUCTION OF DOCUMENTS**

Date: Telephonic Hearing to be set
by Court

Time: To be Set by Court

Judge: Hon. Phyllis J. Hamilton

Place: Courtroom 3, 3rd Floor

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NOTICE OF MOTION AND MOTION

TO ALL PARTIES AND THEIR COUNSEL OF RECORD:

PLEASE TAKE NOTICE that pursuant to this Court’s Order dated June 30, 2016 (Dkt. 203), the undersigned Plaintiffs will and hereby do move the Court for an order granting Plaintiffs’ Motion to Compel Further Document Searches by Defendant, Facebook, Inc. This motion is based upon this Notice of Motion; the accompanying Memorandum of Points and Authorities; the Declaration of David T. Rudolph filed herewith; the argument of counsel, if requested; and such other matters as the Court may consider.

STATEMENT OF ISSUES TO BE DECIDED

Whether, consistent with the requirements of Federal Rule of Civil Procedure 26(b), Defendant Facebook, Inc. should be compelled to produce documents identified through further document searches using Plaintiffs’ proposed search terms and custodians reflected in Appendix A.

1 **I. INTRODUCTION**

2 Pursuant to this Court’s Order (Dkt. 203), Plaintiffs respectfully request the Court to
3 compel Facebook to search for and produce documents using search terms, methodologies, and
4 custodians that are appropriately and proportionally calibrated, pursuant to Fed. R. Civ. P. 26(b),
5 to the scope of Plaintiffs’ claims as articulated in the Court’s Class Certification Order (“Cert.
6 Order”) and the Second Amended Complaint.¹ While the parties have, through meet-and-confer
7 efforts, substantially narrowed their areas of disagreement post-certification, significant disputes
8 remain.

9 The deficiencies addressed in this brief involve three, interrelated issues: **First**,
10 Facebook’s current document production is woefully inadequate because Facebook collected
11 documents through keyword searches that not only omitted highly-relevant terms (which
12 Plaintiffs later identified through discovery) but also *substituted critical keywords with*
13 *generalized terminology that Facebook acknowledges is not used internally.*² Thus, large swaths
14 of relevant discovery were purposefully ignored. **Second**, and compounding the above error by
15 relying on its objections as to scope (the validity of which this Court consistently has rejected,
16 and which, in any event, are now inarguably invalid in light of the Cert. Order), Facebook trained
17 its “predictive coding” software to categorize as irrelevant documents unrelated to “increasing the
18 Like count” (Facebook’s definition of the “challenged practice”)—thus excluding relevant
19 documents from further review and production. **Third**, Facebook remains unwilling to conduct
20 searches from the files of relevant custodians.

21 Plaintiffs immediately objected to Facebook’s improper use of predictive coding and

22 ¹ The documents sought by this motion are responsive to Plaintiffs’ Requests for Production 4-11
23 and 18-20, which seek technical documents related to the claims at issue. The Requests, and
24 Facebook’s responses thereto, are attached as Exhibits 3 and 4, respectively, to the Declaration of
25 David Rudolph (“Rudolph Decl.”), filed herewith. Unless otherwise stated, all exhibits are to the
26 Rudolph Declaration.

27 ² As discussed in greater detail below, a prime example is Facebook’s exclusion of the terms
28 “EntShare” and “EntGlobalShare” from any of its searches, instead using the terms “share object”
and “global share object.” This omission is inexcusable given the fact that EntShares and
EntGlobalShares lie at the heart of each of Plaintiffs’ claims, and is further inexplicable given the
fact that Facebook’s seminal declarant and witness, Alex Himel, has acknowledged that “share
object” and “global share object” are terms that he *would not use* in his professional capacity. *See*
footnote 6, *infra*.

1 objected to Facebook’s inadequate keywords immediately upon determining that Facebook’s
2 searches clearly had not implemented the terminology most relevant to this case. Plaintiffs
3 promptly requested that Facebook supplement its production with documents located by searches
4 using appropriate keywords. Facebook initially refused to produce any further documents, but
5 eventually agreed to a clearly inadequate token search using a subset of the relevant terms on only
6 *three* out of the more than *forty* custodians Facebook has identified thus far.

7 After repeatedly meeting-and-conferring on these topics, Plaintiffs have significantly
8 narrowed their requests to terms—including keyword proximity searches limiting those terms—
9 that correctly reflect the scope of Plaintiffs’ claims as articulated in the Second Amended
10 Complaint and the Cert. Order, and which also address Facebook’s concerns regarding burden
11 and proportionality, and thus satisfy Fed. R. Civ. P. 26(b). The parties’ respective positions on
12 the appropriate search terms, as well as the appropriate temporal scope of discovery, is attached to
13 this brief as Appendix A. While the parties have reached general agreement on many topics,
14 substantial disputes remain, particularly with respect to time period for which documents should
15 be searched. Given Facebook’s recent admissions both shortly prior to and shortly after Plaintiffs
16 amended their Complaint, Facebook’s representations about what may or may not have ceased
17 cannot be taken at face value. Plaintiffs respectfully request, pursuant to this Court’s Order (Dkt.
18 203), that the Court order Facebook to conduct further document searches consistent with
19 Plaintiffs’ proposed search terms, for the full class period.

20 **II. ARGUMENT**

21 **A. Facebook’s Initial Insufficient Document Production Efforts**

22 At the start of discovery, Facebook indicated it would search for documents containing
23 various terms identified by Facebook from its first round of interrogatory responses. These terms
24 largely consisted of non-technical phrases relating to Facebook’s “Like” counter, such as “like
25 button count,” “share object,” “share button” or “URL” in proximity to terms such as
26 “messenger” or “titan.”³ Unbeknownst to Plaintiffs, however, these terms did not reflect the
27 actual terminology employed internally by Facebook engineers with respect to the practices at

28 ³ Ex. 11 (Letter dated May 13, 2015 from Facebook’s counsel to Plaintiffs’ counsel).

1 issue, and omitted many key components of Facebook’s architecture that are employed in
2 scanning, cataloging, and using Private Message content. Moreover, *after* Facebook indicated it
3 would collect and review documents based on these search terms, it revealed that, rather than
4 manually review the documents for relevance, it would employ computer-aided “predictive
5 coding” to *further* narrow the documents related to these narrow search terms for subsequent
6 manual review. Plaintiffs objected to Facebook’s implementation of predictive coding, pointing
7 out that predictive coding is designed to be used *in lieu of*—as opposed to *in addition to*—
8 keyword searches. Facebook’s process of keyword culling is discouraged and recognized by
9 courts and predictive coding experts as a flawed methodology that is likely to filter out a
10 significant portion of responsive documents.⁴ As such, Facebook’s document production efforts
11 were flawed from their inception, not only by improper search terms, but also by a coding and
12 review process that improperly narrowed those documents even further.

13 Compounding this problem, in implementing its predictive coding, Facebook unilaterally
14 imposed an improperly restrictive definition of relevance that this Court has already rejected
15 multiple times,⁵ and which is inarguably untenable in light of the Cert. Order. Just as Facebook
16 failed to include search terms related to the myriad functionalities and uses described below,
17 Facebook also omitted those functionalities and uses when it was training the software to learn
18 the characteristics of relevant documents. In short, since Facebook’s predictive coding software
19 was never trained that the appropriate concepts were relevant, it could not identify as relevant
20 documents related to these concepts. Facebook’s refusal to implement an appropriate standard
21 for relevance has thus guaranteed that relevant documents were withheld from production and
22 still need to be produced.

23 _____
24 ⁴ See *Tinto v. Vale*, No. 14-3042, 2015 WL 4367250, at *1 (S.D.N.Y. July 15, 2015) (“[P]re-
25 culling [using keywords] should not occur in a perfect world.”); *Progressive Cas. Ins. Co. v.*
26 *Delaney*, No. 11-678, 2014 WL 3563467, at *11-12 (D. Nev. July 18, 2014) (where parties had
stipulated to a keyword then manual review protocol, the court would not allow Progressive to
use predictive coding only on the positive keyword hits).

27 ⁵ See, e.g., Dkt. 83 (June 3, 2015 Order), at 7 (rejecting Facebook’s argument that challenging
28 “any ‘interception’ of messages containing URLs for any purpose” demonstrated a shift in
position from allegations in Plaintiffs’ CAC); Dkt. 130 (October 14, 2015 Order), at 8 (same)
(citing CAC at ¶ 86); *Id.* at 13 (citing CAC at ¶¶ 30, 49-51).

1 **B. Facebook’s Inadequate Keywords**

2 Facebook proposed grossly inadequate search terms early on in the case, before producing
3 documents that revealed Facebook’s internal terminology. For example, in light of the Cert.
4 Order, it is indisputable that two technical terms at the core of this litigation are “EntShare” and
5 “EntGlobalShare” (the data structures Facebook creates from scanning URLs within messages to,
6 *inter alia*, increment Like counters).⁶ Remarkably, in its search terms, Facebook used the term
7 “share object” and “global share object,” respectively, *in lieu* of “EntShare” and
8 “EntGlobalShare.” However, Facebook’s engineers would not use the terms Facebook searched
9 for. Alex Himel—an engineering director whom Facebook has used to verify interrogatory
10 responses, provide multiple declarations, and to provide 30(b)(6) testimony related to message
11 scanning and the Like button—stated that *he would not use the term “share object” in internal*
12 *communications at Facebook*: “Q If a Facebook engineer were to refer to an EntShare object or
13 EntGlobalShare object, they’d be more likely to use those terms than . . . the term ‘share object’;
14 is that correct? . . . THE WITNESS: I can tell you I would say ‘EntShare’ or ‘EntGlobalShare,’
15 and I find that engineers tend to like to be specific, but it’s really difficult for me to talk on behalf
16 of other – others.”⁷

17 Moreover, as described in detail in the Cert. Order,⁸ the scope of the message scanning is
18 broader than incrementing “Like” counters. As further described below (and tracking the Cert.
19 Order), discovery also has revealed the internal architecture (and relevant technical terms)
20 utilized by Facebook to retain, analyze, and use Private Message data.⁹ Yet, Facebook
21 deliberately chose not to use the core technical terms relevant to these functionalities and uses,
22 and that failure must be remedied going forward.

23 **C. Plaintiffs’ Proposed Searches Fall Within the Constraints Imposed By the**
24 **Court’s Class Certification Order**

25 Against this backdrop, the parties have negotiated further search terms. As can be seen in

26 ⁶ See Dkt. 192 (Cert. Order), at 4.

27 ⁷ Ex. 5 (Himel Dep.), at 154:19-155:7.

28 ⁸ Dkt. 192, at 4-6.

⁹ See also Dkt. 196 (Second Amended Complaint, “SAC”), ¶¶ 45-55.

1 Appendix A, the parties are largely in agreement as to the proper terms to be used in further
2 keyword searches. As described in detail in the Cert. Order and the SAC, the scope of the
3 message scanning is significantly broader than incrementing “Like” counters (the focus of
4 Facebook’s previous document collection efforts), and includes (a) logging Private Message
5 content for future use;¹⁰ (b) using Private Message content to push recommendations to its users¹¹
6 and targeting users based on Likes and other data points;¹² and (c) providing demographics data
7 and other analytics related to users and their Private Message content.¹³

8 The primary areas of disagreement are (1) what terms should be included in the proximity
9 terms further limiting those searches, (2) the proper time period for the searches, and (3) the
10 proper custodians. Plaintiffs’ search proposal has been carefully crafted as a reasonable
11 compromise to address Facebook’s proportionality concerns, and it is neither appropriate nor
12 reasonable to limit Plaintiffs’ proposed searches any further. Plaintiffs’ search terms are focused
13 on highly technical terms directly related to the source code devices Facebook uses to intercept
14 Private Message content as well as the internal systems that use that content, as described in the
15 Cert. Order and in the SAC, and accordingly these requests satisfy the proportionality and other
16 requirements of Rule 26(b)(1) and (b)(2):

17 **Creation of EntShares and EntGlobalShares:** The terms “EntShare” and
18 “EntGlobalShare” are at the center of Plaintiffs’ claims. As the Court noted, Plaintiffs allege that
19 Facebook intercepts Private Message content for uses not related to message delivery through the
20 creation and manipulation of EntShare and EntGlobalShare objects.¹⁴ Facebook appears to
21 concede the centrality of these terms, given that it has agreed to search for these terms for the

22 ¹⁰ Relevant terms include: EntShare, EntGlobalShare, Link_stats / [link stats], [REDACTED] and
23 scribeh_share_stats.

24 ¹¹ Relevant terms include: [REDACTED], Taste, and
25 Tracking_info (which is a critical term in multiple contexts).

26 ¹² Relevant terms include: targeting team and targeting roadmap.

27 ¹³ Relevant terms include: Insights, Insights Dashboard, Insights (UI), Insights API, Graph API,
28 Insights logging, [REDACTED], and
29 Realtime Metric.

¹⁴ Dkt. 192, at 4 (“Plaintiffs then specifically describe the three ways in which the message data is
allegedly redirected and used. The first is to ‘fuel its algorithms for measuring user engagement
and making recommendations.’ This alleged use is related to the ‘EntShare’ and the
‘EntGlobalShare’ described above...”).

1 entire class period (albeit with improperly restrictive proximity searches).

2 **Logging of Data Created From Private Message Content:** Once it scanned its users’
3 Private Message content, Facebook logged that data in several places on its system for additional,
4 subsequent use. This is directly relevant to Plaintiffs’ allegations regarding how Facebook
5 utilized message content.¹⁵ These logging tables include or relate to “[link stats]”/“link_stats,”¹⁶
6 the “[REDACTED]” table, and the “scribeh_share_stats” log. The “link_stats” table has fueled, *inter*
7 *alia*, APIs that are made “publicly [available] in order to allow for the development of products
8 and features that incorporate engagement statistics—products that take into account what people
9 are interacting with now.”¹⁷ Similarly, the “[REDACTED]” table and “scribeh_share_stats” log
10 stored data related to Private Message content¹⁸ that has been used by Facebook in at least several
11 instances unrelated to message transmission, including fueling recommendations,¹⁹ displaying
12 users’ actions in an “Activity Feed,”²⁰ and fueling queries to a product called the “SharePro
13 API.”²¹ Each of the above-described components of Facebook’s system are, by Facebook’s own
14 admission, areas where data created from Private Message content are logged for further use.

15 **Use of Private Message Content for Recommendations:** Facebook used information
16 acquired from intercepted message content to make recommendations to its users. Plaintiffs’
17 expert, Dr. Jennifer Golbeck, identified (1) [REDACTED]
18 [REDACTED]” and (3) “Taste” as portions of the Facebook platform that took
19 data from Private Messages, *inter alia*, to assess the popularity of the URLs contained therein,
20 identify trends among users, and push content across the social network.²²

21 **Analytics of Private Message Content:** Facebook exposed Private Message content—
22 including the URLs privately shared by users—in both internal and external analytics, thus

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24 ¹⁵ See SAC ¶¶ 3, 28, 39, 45-55.

25 ¹⁶ See FB000008505.

26 ¹⁷ Dkt. 149-2 (Jan. 15 Decl. of Alex Himel), at ¶ 66.

27 ¹⁸ See FB000003093, FB000003096.

28 ¹⁹ Dkt. 184-3 (Fechete Decl.), ¶¶ 13-14, 18, 26; Dkt. 199-2 (Golbeck Report), ¶¶ 44-54.

²⁰ FB000002843.

²¹ FB000007859.

²² See Dkt. 199-2 (Golbeck Report), ¶¶ 56-64.

1 enabling Facebook and third parties to view demographic data about the subjects and senders of
2 the Private Messages. However, Plaintiffs received only a handful of documents referencing
3 these areas of Facebook’s platform: “Insights (UI),” “Insights API,” “Link stats,” and “Graph
4 API”;²³ “Insights logging,” “[REDACTED]
5 [REDACTED]²⁴

6 **“Index[ing] Messages Data for Ad Targeting”**: Facebook experimented with ad
7 targeting based on Private Message content, “similar to seeing ads due to the context of your
8 email in gmail.”²⁵ The document also states that Facebook “should take a look and see if their
9 [sic] is sufficiently interesting data there to justify jumping deeper into a product.” Similarly,
10 Facebook had an “acknowledged problem that a shortage of likes is limiting the number of users
11 that can be targeted by their interests,” and discussed a “targeting team” and “targeting roadmap”
12 to increase Likes among users.²⁶ Plaintiffs have received no further documents related to these
13 practices, which directly relate to Plaintiffs’ allegations regarding Facebook’s improper
14 interception and use of Private Message content.²⁷

15 1. **Facebook’s Proposed Proximity Searches Are Unduly Restrictive and**
16 **Inappropriate**

17 The proximity searches and time limitations Facebook insists on using are inappropriate
18 and appear specifically designed to avoid locating relevant documents going to the core of
19 Plaintiffs’ claims. This is particularly so in light of the fact that the search and proximity terms
20 that Plaintiffs proposed are highly technical terms related to the implementation of Facebook’s
21 source code devices for intercepting and using URLs sent in Private Messages, and are thus
22 tailored to provide proportional discovery pursuant to Rule 26(b)(1) related to Plaintiffs’ claims.

23 As Plaintiffs have explained to Facebook during the meet-and-confer process, Facebook
24 produced numerous relevant documents containing Plaintiffs’ proposed terms that do not contain

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26 ²³ FB000008505.

27 ²⁴ FB000002462.

28 ²⁵ Ex. 12 (FB000008271), at FB000008273.

²⁶ FB000014365.

²⁷ SAC, ¶¶ 3, 28, 39 (alleging Facebook uses Private Message content for targeted advertising).

1 the term “message,” and it is not appropriate to limit the searches to only documents that contain
2 variants on that term. All of Facebook’s proposed search terms are cabined to proximity
3 searches of within 50 words of (message* or messenger or Titan* or inbox*) AND within 50
4 words of (EntShare* or EntGlobalShare* or Share_count* or tracking_info), and in some cases
5 adding additional terms. There is no reasonable basis for such a restriction, and in fact this
6 restriction appears designed to avoid the production of otherwise relevant documents. This is
7 demonstrated by the fact that many relevant documents already produced do not contain
8 “message,” “messenger,” or “titan” anywhere, much less within 50 words of any other relevant
9 term.²⁸ Additionally, the unduly restrictive nature of such a limitation is made apparent by
10 several highly relevant documents, in which the only use of the term “message” is in the context
11 of the “begin forwarded message” formatting from the custodian’s email client; but for the fact
12 that the email had been forwarded, such documents would not be produced under Facebook’s
13 proposed search schema.²⁹ While the parties appear to have large areas of agreement regarding
14 the terms to be used for proximity searches,³⁰ Facebook’s insistence on limiting its searches to
15 *only* those within 50 words of (message* or messenger or Titan* or inbox*) is demonstrably

17 ²⁸ See, e.g., FB000007859 (discussing SharePro, the SharePro API, share_count, like_count, and
18 share_stat); FB000004051 (discussing, inter alia, EntShare, EntGlobalShare, and Taste);
19 FB000001052 (discussing storing likes and shares “or whatever action count happened to an
20 object,” link_stat, [REDACTED] FB000000659 (discussing objects,
mapping domains to objects, “like API,” like counts, Insights, real time indexing, and Taste);
21 FB000001206 (discussing [REDACTED] share_count, like_count, and Graph API); and
22 FB000008821 (providing an overview of Facebook’s targeted advertising).

23 ²⁹ See, e.g., FB000008505 (discussing Insights, Link Stats, Graph API, SharePro, how “counts are
24 displayed,” logging and displaying data related to likes and shares, and database tables tracking
25 likes and shares); FB000002655 (discussing Open Graph API and “how share/link objects relate
26 to url_objects.”).

27 ³⁰ Two notable areas of disagreement are the terms “HBase” and “bootcamp,” which Plaintiffs
28 propose to include but Facebook does not agree to. As explained in Plaintiffs’ concurrently-filed
motion to compel configuration tables, “Hbase” is the database from which Facebook’s
“Insights” product, which shared metrics about Private Message content with third parties, drew
data. “Bootcamp” appears to be Facebook’s internal training program and was the process
through which Facebook introduced its systems to new employees, and therefore documents
containing relevant terms and the term “bootcamp” will likely provide explanatory context for
those terms. See, e.g., FB000003118 (April 25, 2012 internal email stating “Bootcamp Mentors --
I thought it might be useful to summarize what we’re doing and what we need on platform, in
case your mentees ask,” and subsequently defining various aspects of Facebook’s internal
systems, such as Open Graph); FB000002130 (“Just to learn more about hbase, we’ve asked
Sandhya to try to run tailer2 traffic into hbase, as a bootcamp task.”).

1 inappropriate. Given that the parties have agreed in many respects on the scope of terms and
2 proximity searches, Plaintiffs' proposals do not add significant burden or expense to the searches
3 Facebook has already proposed, pursuant to Fed. R Civ. P. 26(b)(1).

4 **2. The Searches Should Be Conducted For the Entire Class Period**

5 With one exception, Facebook seeks to cabin its proposed searches to short subsets of the
6 class period on the grounds that the identified practices have ceased. Even if true (which
7 Plaintiffs dispute), this claim provides no basis to limit searches for documents relevant to the
8 challenged practices for less than the entire class period.

9 The searches should be performed for documents and ESI dated from the previously
10 agreed-upon start of the document production period of April 2010, up through May 18, 2016, the
11 end of the class period.³¹ Facebook's assertions that certain practices may have "ceased" as of
12 certain dates provides no basis to limit the time period for searches. *First*, as this Court is aware,
13 subsequent discovery has demonstrated that, at least in one instance, Facebook's assertions
14 regarding when certain practices ceased were incorrect, and Plaintiffs require documents
15 regarding these practices from the full class period to test the accuracy of Facebook's assertions.³²
16 *Second*, documents related to the specific practices identified by Plaintiffs' search terms are
17 relevant not only to determine whether and when the practices may have ceased, but also to
18 provide full disclosure of Facebook's implementation of those practices and subsequent use of the
19 contents of communications intercepted by those practices. *Third*, as discussed in detail in
20 Plaintiffs' concurrently-filed motions to compel source code and configuration tables for the full
21 class period, Facebook's assertion that it has ceased sharing Private Message content with third
22 parties is demonstrably false: recent *post-amendment* admissions by Facebook demonstrate that it
23 continues to intercept URLs in Private Messages and allows third-parties free access to those
24 URLs—all without any disclosure to users of this Practice.³³

25 ³¹ Ex. 1 (Email correspondence between counsel for the parties).

26 ³² See Dkt. 185 (Facebook's Errata) and Dkt. 187 (Plaintiffs' Objections thereto), (discussing
27 Facebook's false assertion that the "[REDACTED] Hive table" containing URLs intercepted from
28 Private Messages and used to provide targeted recommendations was deleted prior to the class
period).

³³ See Ex. 6 (*Why you shouldn't share links on Facebook*, Quartz (June 8, 2016)).

1 **3. The Searches Should Be Conducted on the Full Range of Appropriate**
2 **Custodians**

3 Additionally, Facebook has still provided no firm commitment regarding the custodians it
4 is willing to search. Facebook has stated it is “willing to consider” producing documents from
5 “some” of the non-individual custodial sources, such as its document repositories [REDACTED] and [REDACTED].
6 Given that Facebook has already produced numerous documents from each of these custodians
7 that contain the search terms proposed in Appendix, there should be no ambiguity regarding
8 Facebook’s responsibility to search those custodians. Facebook has resisted searching documents
9 from the non-individual custodial sources on the grounds that “those sources do not have search
10 capabilities that will allow for the types of searches we are considering for emails, and they also
11 are not amenable to efficient collection processes.”³⁴ However, this is not consistent with
12 Facebook’s own employees’ testimony about its document systems; indeed when specifically
13 asked where he would look for documents related to “EntShares” and “EntGlobalShares,” Mr.
14 Himel stated that he would [REDACTED]
15 [REDACTED]³⁵ Facebook has
16 already produced numerous relevant documents from internal system sources and presents no
17 reason why it cannot perform further searches on those sources given the narrow and proportional
18 scope of the requested discovery.³⁶

19 **III. CONCLUSION**

20 For the foregoing reasons, Plaintiffs respectfully request that the Court order Facebook to
21 produced documents identified through searches consistent with Plaintiffs’ proposed search terms
22 and custodians reflected in Appendix A.

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25 ³⁴ Ex. 1 (June 28, 2016 email from Facebook’s counsel).

26 ³⁵ Ex. 5 (Himel Dep.), at 255-14-256:12 [REDACTED]
27 [REDACTED].

28 Additionally, Plaintiffs request all documents containing the term “EntShare” from any
Facebook wiki sites or other portions of Facebook devoted to or containing reference material on
Facebook’s operation (e.g., [REDACTED]), including those located on web pages with URLs beginning
with the following designations: [REDACTED]
[REDACTED]³⁶

1 Dated: August 2, 2016

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APPENDIX A

Term	Facebook's Proposal to Include	Plaintiffs' Counter-Proposal of Additional Limiting Terms	Facebook's Counter-Proposal
Graph API	Yes, limited by "w/50 (URL w/50 (message* or messenger* or Titan*))" and ending December 31, 2012	Limited by "w/50 message* or messenger* or Titan* or inbox* or EntShare* or EntGlobalShare* or Share_count* or tracking_info* or bootcamp*"	Limited by "w/50 (message* or messenger* or Titan* or inbox*) AND w/50 (EntShare* or EntGlobalShare* or Share_count* or tracking_info* or bootcamp*)" and ending December 31, 2012
"Link_stats" or "link stats"	Yes, limited by "w/50 (URL w/50 (message* or messenger* or Titan*))" and ending December 31, 2012	Limited by "w/50 message* or messenger* or Titan* or inbox* or EntShare* or EntGlobalShare* or Share_count* or tracking_info* or bootcamp*"	Limited by "w/50 (message* or messenger* or Titan* or inbox*) AND w/50 (EntShare* or EntGlobalShare* or Share_count* or tracking_info* or bootcamp*)" and ending December 31, 2012
Targeting roadmap	Yes, limited by "w/50 (URL w/50 (message* or messenger* or Titan*))"	Limited by "w/50 message* or messenger* or Titan* or inbox* or EntShare* or EntGlobalShare* or Share_count* or tracking_info* or like* or share* or bootcamp*"	Limited by "w/50 (message* or messenger* or Titan* or inbox*) AND w/50 (EntShare* or EntGlobalShare* or Share_count* or tracking_info* or (like* or share*) w/2 URL) or bootcamp*)"
Realtime Metric	Yes, limited by "w/50 (URL w/50 (message* or messenger* or Titan*))" and ending December 31, 2012	Limited by "w/50 message* or messenger* or Titan* or inbox* or EntShare* or EntGlobalShare* or Share_count* or tracking_info* or Insights* or Hbase* or Real Time Analytics* or bootcamp*"	Limited by "w/50 (message* or messenger* or Titan* or inbox*) AND w/50 (EntShare* or EntGlobalShare* or Share_count* or tracking_info* or Insights* or Hbase* or "Real Time Analytics*" or bootcamp*)" and ending December 31, 2012
Targeting team	Yes, limited by "w/50 (URL w/50 (message* or messenger* or Titan*))"	Limited by "w/50 message* or messenger* or Titan* or inbox* or EntShare* or	Limited by "w/50 (message* or messenger* or Titan* or inbox*) AND w/50

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Term	Facebook's Proposal to Include	Plaintiffs' Counter-Proposal of Additional Limiting Terms	Facebook's Counter-Proposal
	Titan*))"	EntGlobalShare* or Share_count* or tracking_info* or ██████████ or scribeh_share_stats* or shortage* of like* or share* or activity feed* or bootcamp* or Gmail* or Google**	(EntShare* or EntGlobalShare* or Share_count* or tracking_info* or ██████████ or scribeh_share_stats* or (shortage w/5 (like* or share*)) or activity feed* or bootcamp* or Gmail* or Google*)"
██████████	Yes, limited by "w/50 (URL w/50 (message* or messenger* or Titan*))" and ending December 31, 2012	Limited by "w/50 message* or messenger* or Titan* or inbox* or EntShare* or EntGlobalShare* or Share_count* or tracking_info* or Realtime* or Real Time Analytics* or API* or Hbase* or Counter* or Demographic* or analytic* or sharescapper* or sharescraper* or SharePro* or Interaction Data* or Domain Insights* or link_stats* or link stats* or graph* or bootcamp**"	Limited by "w/50 (message* or messenger* or Titan* or inbox*) AND w/50 (EntShare* or EntGlobalShare* or Share_count* or tracking_info* or Realtime* or Real Time Analytics* or API* or Hbase* or Counter* or Demographic* or analytic* or sharescapper* or sharescraper* or SharePro* or Interaction Data* or Domain Insights* or link_stats* or link stats* or graph*)" and ending December 31, 2012
██████████	Yes, limited by "w/50 (URL w/50 (message* or messenger* or Titan*))" and ending December 31, 2012	Limited by "w/50 message* or messenger* or Titan* or inbox* or EntShare* or EntGlobalShare* or Share_count* or tracking_info* or bootcamp* or Realtime* or Real Time Analytics* or API* or Hbase* or Counter* or Demographic* or analytic* or sharescapper* or sharescraper* or SharePro* or Interaction Data* or Domain Insights* or link_stats* or link stats* or graph**"	Limited by "w/50 (message* or messenger* or Titan* or inbox) AND w/50 (EntShare* or EntGlobalShare* or Share_count* or tracking_info* or bootcamp* or Realtime* or Real Time Analytics* or API* or Hbase* or Counter* or Demographic* or analytic* or sharescapper* or sharescraper* or SharePro* or Interaction Data* or

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Term	Facebook's Proposal to Include	Plaintiffs' Counter-Proposal of Additional Limiting Terms	Facebook's Counter-Proposal
			Domain Insights* or link_stats* or link_stats* or graph*) ” and ending December 31, 2012
[REDACTED]	Yes, limited by "w/50 (URL w/50 (message* or messenger* or Titan*))" and ending July 9, 2014, when the backup system was discontinued	Limited by “w/50 message* or messenger* or Titan* or inbox* or EntShare* or EntGlobalShare* or Share_count* or tracking_info* or bootcamp* or [REDACTED]* or scribeh_share_stats* or taste*”	Limited by “w/50 (message* or messenger* or Titan* or inbox*) AND w/50 (EntShare* or EntGlobalShare* or Share_count* or tracking_info* or bootcamp* or [REDACTED]* or scribeh_share_stats* or taste*)” and ending July 9, 2014, when the backup system was discontinued
[REDACTED]	Yes, limited by "w/50 (URL w/50 (message* or messenger* or Titan*))" and ending July 9, 2014, when the backup system was discontinued	Limited by “w/50 message* or messenger* or Titan* or inbox* or EntShare* or EntGlobalShare* or Share_count* or tracking_info* or bootcamp* or [REDACTED]* or scribeh_share_stats* or taste* or node* or API*”	Limited by “w/50 (message* or messenger* or Titan* or inbox*) AND w/50 (EntShare* or EntGlobalShare* or Share_count* or tracking_info* or bootcamp* or [REDACTED]* or scribeh_share_stats* or taste* or node* or API*)” and ending July 9, 2014, when the backup system was discontinued
Tracking_info	Yes, limited by "w/50 (URL w/50 (message* or messenger* or Titan*))”	Limited by “w/50 message* or messenger* or Titan* or inbox* or EntShare* or EntGlobalShare* or Share_count* or tracking_info* or bootcamp* or share* or taste* or [REDACTED]* or scribeh_share_stats* or target* or recommend* or Insights* or API*”	Limited by “w/50 (message* or messenger* or Titan* or inbox*) AND w/50 (EntShare* or EntGlobalShare* or Share_count* or tracking_info* or bootcamp* or share* or taste* or [REDACTED]* or scribeh_share_stats* or target* or recommend* or Insights* or API*)”
EntGlobalShare	Yes, limited by "w/50 (URL	Limited by “w/50 message* or messenger* or	Limited by “w/50 (message* or


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Term	Facebook's Proposal to Include	Plaintiffs' Counter-Proposal of Additional Limiting Terms	Facebook's Counter-Proposal
	w/50 (message* or messenger* or Titan*))"	<p>or Titan* or inbox* or API* or Insights* or link_stats* or link stats* or Targeting* or Realtime Metric* or graph* or tracking_info* or share_count* or [REDACTED] * or [REDACTED] * or [REDACTED] s* or scribeh_share_stats* or SharePro* or URL* or entity* or entities* or bootcamp*"</p> <p>Additionally, Plaintiffs request all documents containing the term "EntGlobalShare" from any Facebook wiki sites or other portions of Facebook's internal repositories devoted to or containing reference material on Facebook's operation (e.g., [REDACTED]). For instance – and only for illustrative purposes – Plaintiffs would seek all documents including the term "EntGlobalShares" that were located on web pages with URLs beginning with the following designations:</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>messenger or Titan* or inbox*) AND w/50 (API* or Insights* or link_stats* or link stats* or Targeting* or Realtime Metric* or graph* or tracking_info* or share_count* or [REDACTED] * or [REDACTED] * or [REDACTED] * or [REDACTED] * or scribeh_share_stats* or SharePro* or URL* or entity* or entities* or bootcamp*)"</p> <p>We will need to have a separate discussion about searching non-individual custodians.</p>
EntShare	Yes, limited by "w/50 (URL w/50 (message* or messenger* or Titan*))"	Limited by "w/50 message* or messenger* or Titan* or inbox* or API* or Insights* or link_stats* or link stats* or Targeting* or	Limited by "w/50 (message* or messenger or Titan* or inbox*) AND w/50 (API* or Insights* or link_stats* or link

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Term	Facebook's Proposal to Include	Plaintiffs' Counter-Proposal of Additional Limiting Terms	Facebook's Counter-Proposal
		<p>Realtime Metric* or graph* or tracking_info* or share_count* or [REDACTED]* or [REDACTED]* or scribeh_share_stats* or SharePro* or URL* or entity* or entities* or bootcamp*”</p> <p>Additionally, Plaintiffs request all documents containing the term “EntShare” from any Facebook wiki sites or other portions of Facebook devoted to or containing reference material on Facebook’s operation (e.g., [REDACTED]). For instance – and only for illustrative purposes – Plaintiffs would seek all documents including the term “EntShares” that were located on web pages with URLs beginning with the following designations:</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>stats* or Targeting* or Realtime Metric* or graph* or tracking_info* or share_count* or [REDACTED]* or [REDACTED]* or scribeh_share_stats* or SharePro* or URL* or entity* or entities* or bootcamp*”)”</p> <p>We will need to have a separate discussion about searching non-individual custodians.</p>
Insights Dashboard	Yes, limited by "w/50 (URL w/50 (message* or messenger* or Titan*))" and ending December 31, 2012	Limited by “w/50 message* or messenger* or Titan* or inbox* or EntShare* or EntGlobalShare* or Share_count* or tracking_info* or bootcamp * or Realtime* or Real Time Analytics* or API* or Hbase* or Counter* or	Limited by “w/50 (message* or messenger or Titan* or inbox*) AND w/50 (EntShare* or EntGlobalShare* or Share_count* or tracking_info* or bootcamp* or Realtime* or Real Time Analytics* or

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Term	Facebook's Proposal to Include	Plaintiffs' Counter-Proposal of Additional Limiting Terms	Facebook's Counter-Proposal
		Demographic* or analytic* or sharescapper* or sharescraper* or SharePro* or Interaction Data* or Domain Insights* or link_stats* or link stats* or graph* or bootcamp *”	API* or Hbase* or Counter* or Demographic* or analytic* or sharescapper* or sharescraper* or SharePro* or Interaction Data* or Domain Insights* or link_stats* or link stats* or graph* or bootcamp ” and ending December 31, 2012
Insights (UI)	Yes, limited by "w/50 (URL w/50 (message* or messenger* or Titan*))" and ending December 31, 2012	Limited by “w/50 message* or messenger* or Titan* or inbox* or EntShare* or EntGlobalShare* or Share_count* or tracking_info* or Realtime* or Real Time Analytics* or API* or Hbase* or Counter* or Demographic* or analytic* or sharescapper* or sharescraper* or SharePro* or Interaction Data* or Domain Insights* or link_stats* or link stats* or graph* or bootcamp *”	Limited by “w/50 (message* or messenger* or Titan* or inbox*) AND w/50 (EntShare* or EntGlobalShare* or Share_count* or tracking_info* or Realtime* or Real Time Analytics* or API* or Hbase* or Counter* or Demographic* or analytic* or sharescapper* or sharescraper* or SharePro* or Interaction Data* or Domain Insights* or link_stats* or link s bootcamp * ” and ending December 31, 2012
	Yes, limited by "w/50 (URL w/50 (message* or messenger* or Titan*))" and ending December 31, 2012	Limited by “w/50 message* or messenger* or Titan* or inbox* or EntShare* or EntGlobalShare* or Share_count* or tracking_info* or bootcamp * or Realtime* or Real Time Analytics* or API* or Hbase* or Counter* or Demographic* or analytic* or sharescapper* or sharescraper* or	Limited by “w/50 (message* or messenger* or Titan* or inbox) AND w/50 (EntShare* or EntGlobalShare* or Share_count* or tracking_info* or bootcamp* or Realtime* or Real Time Analytics* or API* or Hbase* or Counter* or Demographic* or analytic* or

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Term	Facebook's Proposal to Include	Plaintiffs' Counter-Proposal of Additional Limiting Terms	Facebook's Counter-Proposal
		SharePro* or Interaction Data* or Domain Insights* or link_stats* or link stats* or graph* or bootcamp *	shareseapper* or sharescraper* or SharePro* or Interaction Data* or Domain Insights* or link_stats* or link stats* or graph* or bootcamp* ” and ending December 31, 2012
Insights logging	Yes, limited by "w/50 (URL w/50 (message* or messenger* or Titan*))" and ending December 31, 2012	Limited by “w/50 message* or messenger* or Titan* or inbox* or EntShare* or EntGlobalShare* or Share_count* or tracking_info* or Realtime* or Real Time Analytics* or API* or Hbase* or Counter* or Demographic* or analytic* or sharescapper* or sharescraper* or SharePro* or Interaction Data* or Domain Insights* or link_stats* or link stats* or graph* or bootcamp *	Limited by “w/50 (message* or messenger* or Titan* or inbox*) AND w/50 (EntShare* or EntGlobalShare* or Share_count* or tracking_info* or Realtime* or Real Time Analytics* or API* or Hbase* or Counter* or Demographic* or analytic* or sharescapper* or sharescraper* or SharePro* or Interaction Data* or Domain Insights* or link_stats* or link stats* or graph* or bootcamp* ”) and ending December 31, 2012
Insights API	Yes, limited by "w/50 (URL w/50 (message* or messenger* or Titan*))" and ending December 31, 2012	Limited by “w/50 message* or messenger* or Titan* or inbox* or EntShare* or EntGlobalShare* or Share_count* or tracking_info* or Realtime* or Real Time Analytics* or API* or Hbase* or Counter* or Demographic* or analytic* or sharescapper* or sharescraper* or SharePro* or Interaction Data* or Domain Insights* or link_stats* or link stats* or graph*	Limited by “w/50 (message* or messenger* or Titan* or inbox*) AND w/50 (EntShare* or EntGlobalShare* or Share_count* or tracking_info* or Realtime* or Real Time Analytics* or API* or Hbase* or Counter* or Demographic* or analytic* or sharescapper* or sharescraper* or SharePro* or Interaction Data* or

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Term	Facebook's Proposal to Include	Plaintiffs' Counter-Proposal of Additional Limiting Terms	Facebook's Counter-Proposal
		or bootcamp**	Domain Insights* or link_stats* or link stats* or graph* or bootcamp*) ” and ending December 31, 2012
Insights	Yes, limited by "w/50 (URL w/50 (message* or messenger* or Titan*))" and ending December 31, 2012	Limited by “w/50 message* or messenger* or Titan* or inbox* or EntShare* or EntGlobalShare* or Share_count* or tracking_info* or bootcamp * or Realtime* or Real Time Analytics* or API* or Hbase* or Counter* or Demographic* or analytic* or sharescapper* or sharescraper* or SharePro* or Interaction Data* or Domain Insights* or link_stats* or link stats* or graph**”	Change primary term to “Domain Insights” and Limited by “w/50 (message* or messenger* or Titan* or inbox*) AND w/50 (EntShare* or EntGlobalShare* or Share_count* or tracking_info* or bootcamp* or Realtime* or Real Time Analytics* or API* or Hbase* or Counter* or Demographic* or analytic* or sharescapper* or sharescraper* or SharePro* or Interaction Data* or Domain Insights* or link_stats* or link stats* or graph*)” and ending December 31, 2012
Taste	Yes, limited by "w/50 (URL w/50 (message* or messenger* or Titan*))" and ending July 9, 2014, when the backup system was discontinued	Limited by “w/50 message* or messenger* or Titan* or inbox* or EntShare* or EntGlobalShare* or Share_count* or tracking_info* or bootcamp * or recommend* or [REDACTED] * or [REDACTED] * or [REDACTED] * or scribeh_share_stats* or URL**”	Limited by “w/50 (message* or messenger* or Titan* or inbox*) AND w/50 (EntShare* or EntGlobalShare* or Share_count* or tracking_info* or bootcamp* or recommend* or [REDACTED] * or [REDACTED] * or [REDACTED] * or scribeh_share_stats* or URL*)” and ending July 9, 2014, when the backup system was discontinued

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Term	Facebook's Proposal to Include	Plaintiffs' Counter-Proposal of Additional Limiting Terms	Facebook's Counter-Proposal
[REDACTED]	Not Included	Limited by "w/50 message* or messenger* or Titan* or inbox* or EntShare* or EntGlobalShare* or Share_count* or tracking_info* or bootcamp * or scribe* or taste* or recommend* or [REDACTED]* or [REDACTED]* or [REDACTED]* or URL*"	Limited by "w/50 (message* or messenger or Titan* or inbox*) AND w/50 (EntShare* or EntGlobalShare* or Share_count* or tracking_info* or bootcamp* or scribe* or taste* or recommend* or [REDACTED] or [REDACTED]* or URL*)" and ending February 1, 2012
scribeh_share_stats	Not Included	Limited by "w/50 message* or messenger* or Titan* or inbox* or EntShare* or EntGlobalShare* or Share_count* or tracking_info* or bootcamp * or [REDACTED]* or taste* or recommend* or [REDACTED]* or [REDACTED]* or [REDACTED]* or URL*"	Limited by "w/50 (message* or messenger or Titan* or inbox*) AND w/50 (EntShare* or EntGlobalShare* or Share_count* or tracking_info* or bootcamp* or [REDACTED] or taste* or recommend* or [REDACTED] or [REDACTED]* or URL*)"

1 **Proposed Custodians:**

- 2 1. Matt Jones
3 2. Scott Renfro
4 3. Malorie Lucich
5 4. Mike Vernal
6 5. Mark Kinsey
7 6. Austin Haugen
8 7. Frederic Wolens
9 8. Caryn Marooney
10 9. Alex Himel
11 10. Ray He
12 11. Dan Fechete
13 12. Facebook Temp
14 13. Facebook Email
15 14. Salesforce
16 15. Facebook
17 16. Help Center Internal
18 17. Facebook Internal
19 18. Dev Site
20 19. Wiki
21 20. Mathew Varghese
22 21. Tasks

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