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**Pro hac vice application forthcoming*

Attorneys for Plaintiff
Angel Technologies Group LLC

**UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA**

Angel Technologies Group LLC,

Plaintiff,

vs.

Facebook, Inc. and Instagram LLC,

Defendants.

Case No. 2:21-cv-08459

**COMPLAINT FOR PATENT
INFRINGEMENT**

DEMAND FOR JURY TRIAL

1 Plaintiff Angel Technologies Group LLC (“Angel Technologies” or “Plaintiff”)
2 brings this Complaint against Facebook, Inc. (“Facebook”) and Instagram LLC
3 (“Instagram,” and together with Facebook, the “Defendants”) for infringement of U.S.
4 Patent Nos. 8,954,432 (the “432 Patent”), 9,959,291 (the “291 Patent”), 10,417,275
5 (the “275 Patent”), and 10,628,480 (the “480 Patent”) (collectively, the “Angel
6 Technologies Patents”). Plaintiff, on personal knowledge as to its own acts, and on
7 information and belief as to all others based on investigation, alleges as follows:

8 **SUMMARY OF THE ACTION**

9 1. This is a patent infringement suit relating to Defendants’ unauthorized
10 and unlicensed use of the Angel Technologies Patents on their systems, servers, and
11 websites and in their applications. The technologies claimed in the Angel
12 Technologies Patents support one of Defendants’ core functionalities, photo tagging.

13 2. Mark Frigon is the founder and owner of Angel Technologies and the
14 sole inventor of the Angel Technologies Patents. In the 1990s, as an early adopter of
15 digital photography, Mr. Frigon amassed a large collection of photos of his friends
16 and family with his floppy-drive powered digital camera. While Mr. Frigon was able
17 to make his photos available to others by posting them to his personal website, he was
18 frustrated with the inefficiencies of this approach and the passive experience it
19 produced for viewers. In particular, it was difficult to search for photos containing
20 specific people, viewers could not discover more about people in the photos, it was
21 time consuming to alert family and friends that Mr. Frigon had posted a photo online,
22 and it was inefficient to type in a caption for each individual photo. Mr. Frigon began
23 researching database and user interface technologies to address these inefficiencies
24 and make photo sharing more interactive.

25 3. In 2000, Mr. Frigon decided to forego his promising career in finance to
26 pursue his vision of an improved photo sharing system in earnest. After nearly two
27 years of development and hundreds of thousands of dollars of investment, Mr. Frigon
28

1 launched Sacko.com. This website showcased a technology that allowed members to
 2 identify, search for, and view the people in uploaded digital photos. The technology
 3 allowed users to input which other users existed within digital photos and “simply
 4 point the cursor at an individual within a photo to identify his/her identity.”¹ To
 5 streamline sharing and fuel community growth, the technology behind Sacko.com
 6 automatically emailed tagged people to notify them of the tag and, if the recipient was
 7 not a Sacko.com member, asked if he or she wanted to join. Members could also
 8 search for photos containing a specific person and, when viewing a photo, could
 9 display a list of all identified users therein. In November 2000, Mr. Frigon filed a
 10 provisional patent application on his inventions.

11 4. After it launched, Sacko.com was widely recognized for the
 12 groundbreaking nature of its “impress[ive]” and “unique feature” that “allows you to
 13 label the people who are in your pictures by name” and its “polished” and “slick[.]”
 14 interface.² The technology was highlighted in *The Wall Street Journal*’s “Best of the
 15 Web” for digital photography and *Mobile PC Magazine* named Sacko.com its “top
 16 pick” for sharing photos online.

17 5. About five years later, Facebook launched its photo service and nearly
 18 ten years later, Instagram launched its application. Both Defendants subsequently
 19 implemented Mr. Frigon’s inventions—Facebook in 2005 and Instagram in 2013.
 20 Specifically, Facebook allows users to upload and view photos, “tag a photo to show
 21
 22

23
 24 ¹ See Sacko’s Technology, Sacko.com Internet Archive, *available at*
 25 [https://web.archive.org/web/20021209213931/http://www.sacko.com:80/us/technolog](https://web.archive.org/web/20021209213931/http://www.sacko.com:80/us/technology.asp)
[y.asp](https://web.archive.org/web/20021209213931/http://www.sacko.com:80/us/technology.asp).

26 ² *The Wall Street Journal*, “Best Ways To . . . Display and Develop Photos” (Sept. 15,
 27 2003); *Mobile PC Magazine*, “Photo Sharing Death Match: Ofoto, Sacko.com,
 28 Shutterfly and Webshots” (Mar. 2, 2004).

1 who's in the photo," automatically notify the tagged person,³ and search for tagged
 2 photos of specific individuals. Similarly, Instagram allows users to upload and view
 3 photos, tag other users in uploaded photos, automatically notify users that they have
 4 been tagged, and search for photos in which a specific user has been tagged.⁴
 5 Facebook touts photo tagging as, for example, "[t]he single greatest growth
 6 mechanism ever"⁵ and *the* feature "that made [Facebook] the biggest photo product on
 7 the web."⁶

8 6. Angel Technologies brings this action to put a stop to Defendants'
 9 unauthorized and unlicensed use of the Angel Technologies Patents.

10 **THE PARTIES**

11 7. Angel Technologies is a limited liability company with its principal place
 12 of business at 501 Congress Avenue, Suite 150, Austin, Texas 78701. Angel
 13 Technologies is wholly owned by Mark Frigon, the sole inventor of the Angel
 14 Technologies Patents.

15 8. Facebook is a corporation organized under the laws of the State of
 16 Delaware with its principal place of business at 1601 Willow Road, Menlo Park,
 17 California 94025. Facebook is a social media company and social networking
 18

19 ³ Facebook.com, "What is tagging on Facebook and how does it work?," *available at*
 20 <https://www.facebook.com/help/124970597582337>.

21 ⁴ *See, e.g.*, Facebook.com Instagram Help Center, "Tagging and Mentions," *available*
 22 *at* <https://www.facebook.com/help/instagram/627963287377328>; Social Pros,
 23 "Instagram Tagged Photo Search: Find All Tags and Mentions" (May 5, 2021),
available at <https://socialpros.co/instagram-tagged-photos-search/>.

24 ⁵ *See* Eden Chen Twitter (July 23, 2018), *available at*
 25 <https://twitter.com/edenchen/status/1021466130865516544>.

26 ⁶ VentureBeat, "Q & A: Facebook's Bret Taylor on privacy, the transition from
 27 FriendFeed" (May 28, 2010), *available at* [https://venturebeat.com/2010/05/28/bret-](https://venturebeat.com/2010/05/28/bret-taylor-facebook)
 28 [taylor-facebook](https://venturebeat.com/2010/05/28/bret-taylor-facebook).

1 platform, which owns and operates Facebook, Instagram, WhatsApp, and other social
2 media services.

3 9. Instagram is a limited liability company organized under the laws of the
4 State of Delaware, with its principal place of business at 1601 Willow Road, Menlo
5 Park, California 94025. Instagram is a photo and video sharing social networking
6 service owned by Facebook.

7 10. Facebook and Instagram directly and/or indirectly develop, design,
8 manufacture, use, distribute, market, offer to sell, and/or sell infringing products and
9 services in the United States, including in this District, and otherwise purposefully
10 direct infringing activities to this District in connection with their websites and
11 applications.

12 **JURISDICTION AND VENUE**

13 11. This is an action arising under the patent laws of the United States, 35
14 U.S.C. §§ 1, *et seq.* Accordingly, the Court has subject matter jurisdiction pursuant to
15 28 U.S.C. § 1331 (federal question) and 28 U.S.C. § 1338(a) (action arising under an
16 Act of Congress relating to patents). Venue is proper in this judicial district under 28
17 U.S.C. §§ 1391 and 1400(b).

18 12. More specifically, this action for patent infringement involves
19 Defendants' manufacture, use, sale, and/or lease, and offer for sale and/or lease, of
20 infringing technology within their websites and applications to create and deliver
21 photo tagging (the "Infringing Products") associated with each of the Angel
22 Technologies Patents as shown below.

23 13. The Infringing Products, which are explained in exemplary detail *infra*,
24 include Facebook's photo-tagging features (*e.g.*, for Facebook Photos), Facebook's
25 video-tagging features (*e.g.*, for Facebook Videos and Facebook Live), Facebook's
26 facial recognition feature (*e.g.*, "Tag Suggestions" and "Facial Recognition"), and
27 Instagram's similar features.
28

14. Facebook has at least two offices physically located in the Central District of California and owns and/or leases the premises where these offices are located. One office is located at 12777 Jefferson Blvd., Los Angeles, California 90066,⁷ and the second is located at 8500 Balboa Blvd., Los Angeles, California 91325.⁸ In addition, in 2019, Facebook signed a lease for a 260,000 square foot property located at 12105 and 12126 West Waterfront Drive, Los Angeles, California 90094.⁹ These Facebook offices are staffed by persons directly employed by Facebook, many of whom live in this District, and Facebook employs other individuals who live in this District.

15. Facebook's office located at 12777 Jefferson Blvd. employs more than 300 people working on at least the following 11 teams: Business Development & Partnerships; Communications & Public Policy; Software Engineering; Legal, Finance, Facilities & Admin; Product Management; Enterprise Engineering; People & Recruiting; Data & Analytics; Sales & Marketing; Technical Program Management; and Oculus.¹⁰

⁷ See Wescover, "Facebook, Playa Vista," available at <https://www.wescover.com/l/los-angeles/facebook-playa-vista>.

⁸ See *The Real Deal*, "Facebook inks lease at Harman Campus in San Fernando Valley: sources" (Oct. 20, 2017), available at <https://therealdeal.com/la/2017/10/20/facebook-inks-lease-at-harman-campus-in-san-fernando-valley-sources>.

⁹ See *Curbed*, "Facebook leasing more space in Playa Vista" (Jan. 3, 2019), available at <https://la.curbed.com/2019/1/3/18166039/facebook-playa-vista-office-space-brickyard>.

¹⁰ *Los Angeles Business Journal*, "Facebook Dialing in partnerships and ramping up technology" (Nov. 8, 2019), available at <https://labusinessjournal.com/news/2019/nov/08/facebook>.

1 16. Facebook lists 238 job openings in Los Angeles, California on its
 2 website.¹¹ These open positions include a role on the Software Engineering Team,
 3 which “create[s] the infrastructure, systems, and products” that “drive [Facebook]
 4 apps and services.”¹² Facebook also seeks to hire employees in Los Angeles to join
 5 the Software Engineer/Infrastructure Team, which “handle[s] everything from
 6 Facebook scale data storage, to synchronization and coordination of large server
 7 clusters, to providing a runtime environment for front end Facebook code,”¹³ and the
 8 Product Analytics Team, which “help[s] define the experiences [Facebook] builds for
 9 billions of people . . . around the world,” and “collaborate[s] on a wide array of
 10 product and business problems with . . . cross-functional partners across Product,
 11 Engineering, Research, Data Engineering, Marketing, Sales, Finance, and Others.”¹⁴

12 17. On information and belief, Facebook employees who designed,
 13 developed, and launched the Infringing Products are based in the Central District of
 14 California.

15 18. Instagram has at least one office physically located in the Central District
 16 of California. This Instagram office is staffed by persons directly employed by
 17 Instagram, many of whom live in this District, and Instagram employs other
 18

19 ¹¹ Facebook.com open positions in Los Angeles, *available at*
 20 [https://www.facebook.com/careers/jobs/?offices\[0\]=Los%20Angeles%2C%20CA](https://www.facebook.com/careers/jobs/?offices[0]=Los%20Angeles%2C%20CA)
 21 (listing 238 jobs in Los Angeles as of October 24, 2021).

22 ¹² Facebook Careers, Software Engineering, *available at*
 23 [https://www.facebook.com/careers/areas-of-](https://www.facebook.com/careers/areas-of-work/engineering/?p[teams][0]=Software%20Engineering&teams[0]=Software%20Engineering&offices[0]=Los%20Angeles%2C%20CA#openpositions)
 24 [work/engineering/?p\[teams\]\[0\]=Software%20Engineering&teams\[0\]=Software%20E](https://www.facebook.com/careers/areas-of-work/engineering/?p[teams][0]=Software%20Engineering&teams[0]=Software%20Engineering&offices[0]=Los%20Angeles%2C%20CA#openpositions)
[ngineering&offices\[0\]=Los%20Angeles%2C%20CA#openpositions](https://www.facebook.com/careers/areas-of-work/engineering/?p[teams][0]=Software%20Engineering&teams[0]=Software%20Engineering&offices[0]=Los%20Angeles%2C%20CA#openpositions).

25 ¹³ Facebook Careers, Software Engineer – Infrastructure, *available at*
 26 <https://www.facebook.com/careers/v2/jobs/1206462713081889>.

27 ¹⁴ Facebook Careers, Data Scientist, Product Analytics, *available at*
 28 <https://www.facebook.com/careers/v2/jobs/1291372151310422>.

1 individuals who live in this District. Instagram lists job openings in Los Angeles,
2 California on its website.¹⁵

3 19. Defendants have committed and continue to commit acts of infringement
4 in violation of 35 U.S.C. § 271, and have made, used, marketed, distributed, offered
5 for sale, sold, and/or imported their Infringing Products in the state of California,
6 including in this District, and engaged in infringing conduct within and directed at or
7 from this District.

8 20. On information and belief, Defendants conduct their regular, established
9 business in this District, including at the locations described in paragraphs 14 to 18.
10 The Facebook and Instagram offices and employees located in this District develop,
11 provide, maintain, make available, and assist others in using the Infringing Products,
12 including customers in this District, across the United States, and across the globe.
13 Defendants have also purposefully and voluntarily placed the Infringing Products into
14 the stream of commerce with the expectation that the Infringing Products will be used
15 in this District. The Infringing Products have been and continue to be distributed to,
16 and used in, this District. Defendants' acts cause injury to Angel Technologies,
17 including within this District.

18 21. This Court has general and/or specific personal jurisdiction over
19 Defendants and venue is proper, including because Defendants, directly and/or in
20 combination with their subsidiaries or affiliates and/or through their agents, do
21 continuous and systematic business in this District, including by providing the
22 Infringing Products to residents of this District, providing the Infringing Products that
23 Defendants knew would be used within this District, and/or participating in the
24 solicitation of business from residents of this District.

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27 ¹⁵ Instagram.com, Instagram Careers, *available at* [https://about.instagram.com/about-](https://about.instagram.com/about-us/careers)
28 [us/careers](https://about.instagram.com/about-us/careers).

22. Moreover, on information and belief, Defendants, directly or through their subsidiaries and affiliates, place the Infringing Products in the stream of commerce, which is directed at this District, with the knowledge and/or understanding that such Infringing Products will be provided to customers within this District. In addition, Defendants, directly or through their subsidiaries, employ individuals within this District, including employees who design, develop, use, offer, or make available the Infringing Products to customers here, and maintain offices and facilities here. Defendants, directly or through their subsidiaries, operate highly-trafficked commercial websites and mobile applications through which customers in this District regularly use the Infringing Products.

FACTUAL BACKGROUND

I. Mark Frigon, Angel Technologies' Founder and Inventor, Creates Photo Tagging and Launches Sacko.com

23. Mark Frigon, the founder and owner of Angel Technologies and the sole inventor of the Angel Technologies Patents, grew up near Louisville, Kentucky. In 1999 while working in New York City, Mr. Frigon began studying database design to build a system to efficiently track and analyze his employer's investment opportunities. At the time, Mr. Frigon also owned an early digital camera, and collected a large number of digital photos of his family and friends, which he posted to various personal website services of the era. However, Mr. Frigon found the process of organizing and posting these photos inefficient and, from the user's perspective, not interactive. To address these limitations, Mr. Frigon began researching user-interface technologies that, along with his database knowledge, Mr. Frigon could use to create something better.

24. Mr. Frigon spent nights and weekends identifying people in the photos in his collection and capturing that information in a database to enable better organization and interactivity. As a result of his work, those who visited Mr. Frigon's

1 website could now see which people were in each photo, click on any of the
2 photographed people to obtain additional photos of them, and obtain additional
3 information about the tagged people. However, this process was time consuming for
4 Mr. Frigon and limited by the fact that even he did not know all of the people in his
5 photographs. Mr. Frigon realized that the photo-sharing process would be more
6 effective and efficient if others could contribute photos and tags of people they
7 recognized within a photo community. After this “crowdsourcing” epiphany, Mr.
8 Frigon understood that his idea was much bigger than just his personal website.

9 25. In 2000, recognizing the opportunity, Mr. Frigon left his job, ventured
10 out on his own to try to make his vision a reality, and spent many months designing
11 and developing prototypes for his technology. In November 2000, Mr. Frigon filed a
12 provisional patent application on his inventions (which ultimately led to the issuance
13 of the Angel Technologies Patents).

14 26. In 2001, Mr. Frigon was ready to bring his concept to market, and
15 launched Sacko.com. This online photo community showcased a technology that (1)
16 allowed users to upload photos, add contacts, identify community members in photos,
17 and search photos for specific individuals, and (2) automated the sharing of photos
18 with anyone tagged in a photo.

19 27. The Sacko.com website¹⁶ stated that the technology was patent-pending
20 and explained its tagging technology as follows:

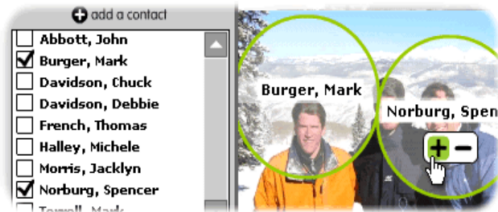
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26 ¹⁶ See Sacko’s Technology, Sacko.com Internet Archive, *available at*
27 [https://web.archive.org/web/20021209213931/http://www.sacko.com:80/us/technolog](https://web.archive.org/web/20021209213931/http://www.sacko.com:80/us/technology.asp)
28 [y.asp](https://web.archive.org/web/20021209213931/http://www.sacko.com:80/us/technology.asp).

Sacko's Technology

Sacko has created an innovative, patent-pending technology that allows users to identify and label people within digital photos. Sacko's ability to capture, store and retrieve this data enables it to change the way people find, view and share digital photos online.

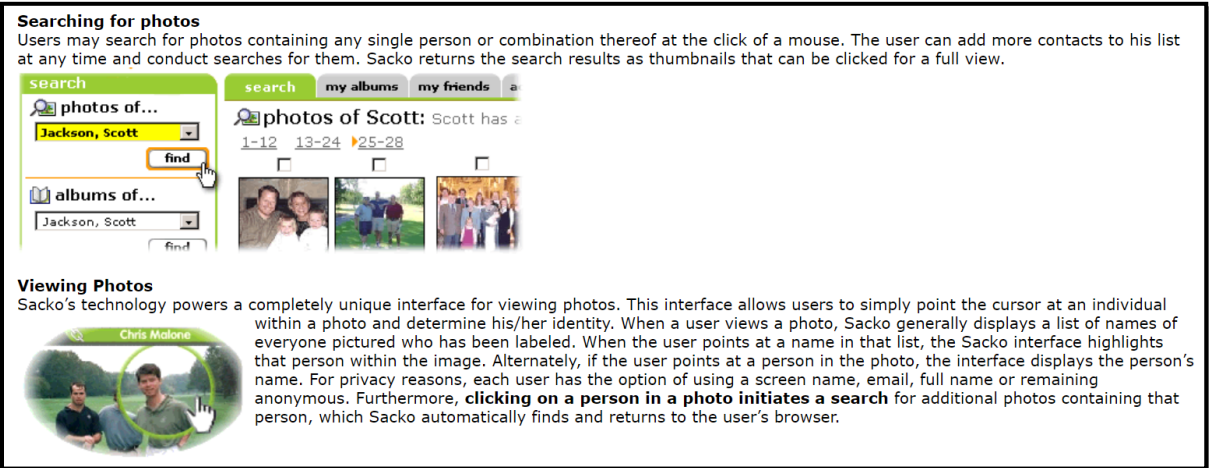
Capturing Data

After uploading a photo or while viewing picture, users have the option to identify individuals within a photo. The sacko.com website provides an innovative mechanism allowing users to circle each person in a photo.



Users can change the size and location of each circle to match the individual's size in the photo. When the client chooses to save his/her data, Sacko ascertains the location of each person in the photo base on the corresponding circle. Sacko stores this information.

28. The Sacko.com website¹⁷ also explained its searching technology, which allowed users to search for photos of specific individuals or click on an individual in a photo to view all photos of that person, as follows:



29. Sacko was programmed so that each time a user tagged an individual, it would notify the tagged individual, and if the individual was not a member of the community, prompt him or her to join. Sacko also encouraged the growth of connections between users by allowing users to add tagged users to their own contact lists. After its launch, membership of the Sacko site grew quickly.

¹⁷ See Sacko's Technology, Sacko.com Internet Archive, available at <https://web.archive.org/web/20021209213931/http://www.sacko.com/us/technology.a.sp>.

30. The significance and value of this technology was recognized by the media and the industry. For example, on September 15, 2003, *The Wall Street Journal* published an article, “Best Ways To . . . Display and Develop Photos,” listing Sacko alongside online photo heavyweights such as shutterfly.com, snapfish.com, and ofoto.com (owned by Kodak).¹⁸ The article set Sacko.com apart, noting that it “touts a unique feature that allows you to label the people who are in your pictures by name. After you’ve done so, you can immediately find every picture of that individual.”¹⁹

31. As another example, on March 2, 2004, *Mobile PC Magazine* published an article entitled “Photo Sharing Death Match: Ofoto, Sacko.com, Shutterfly and Webshots.”²⁰ The article praised Sacko.com as its “top pick” for photo sharing:

Sacko.com has the slickest interface of the photo-sharing services we tested, with fast and simple browsing and zoom controls. After entering your friends’ names (and, optionally, e-mail addresses), you can tag photos with names from your contact list, mark where each friend’s face is, and optionally add pop-up captions. It sounds silly, but the payoff comes later: It takes just one or two clicks to bring up every picture containing a certain person – even if that person is in someone else’s photos. . . . For general photo sharing . . . Sacko is our top pick.²¹

32. Also in March 2004, *PC Magazine* published an article about Sacko, admiring its “polished interface” and noting, “[w]e are particularly impressed by the feature that lets you select and label faces in pictures.”²² The article described the

¹⁸ *The Wall Street Journal*, “Best Ways To . . . Display and Develop Photos” (Sept. 15, 2003).

¹⁹ *Id.*

²⁰ *Mobile PC Magazine*, “Photo Sharing Death Match: Ofoto, Sacko.com, Shutterfly and Webshots” (Mar. 2, 2004).

²¹ *Id.*

²² *PC Magazine*, “Photo Sharing Software” (Mar. 16, 2004).

1 process for using the photo-sharing site: “First you define friends in a list, and then
2 you attach identities to faces (or figures) in photos. As you view pictures, the site
3 magnifies each face along with an optional pop-up balloon caption.”²³

4 33. During this time and the years that followed, Mr. Frigon continued to
5 pursue the Angel Technologies Patents, which issued between February 10, 2015 and
6 April 21, 2020.

7 **II. The Angel Technologies Patents**

8 34. The Angel Technologies Patents describe, among other things, a system,
9 computer program, and method for storing and sharing digital media online and
10 permitting the identification of objects within digital media. *See, e.g.*, Ex. A (’432
11 Patent) at Abstract. The inventions disclosed in the Angel Technologies Patents allow
12 the identification of objects (*e.g.*, people) without requiring the person viewing the
13 media to retype descriptive identification information for each and every
14 identification. *Id.* The inventions also disclose the automatic sharing of photos with
15 others and accurate searching for photos and/or certain people in photos. *Id.*

16 35. In one embodiment, the Angel Technologies Patents describe identifying
17 and displaying objects within a digital image over a system of interconnected
18 computers. *Id.* at 3:48-51. For example, a user can identify where a person exists in a
19 photo by selecting the person’s name from a list and clicking on the person’s location
20 in the photo. *Id.* at 3:52-54. By identifying people within photos, the system is able to
21 search for photos where a specified person appears and generate output that
22 recognizes where in the photo a person appears. *Id.* at 3:52-57.

23 36. The claims of the Angel Technologies Patents are directed at specific
24 problems existing in the realm of Internet-based digital photo and media sharing. For
25 example, “existing websites [did] not offer users the ability to identify objects within
26

27 ²³ *Id.*

1 photos” such that unless the viewer had prior knowledge of the individuals in the
2 photo, the viewer was unable to determine their identities. *Id.* at 1:62-2:1. Although
3 photo album sites “offer[ed] the ability to describe uploaded photos through the use of
4 captions or other descriptive fields,” this was insufficient. *Id.* at 2:1-3. For example, if
5 a user uploaded a photo with the caption “Stephanie rollerblading with Tauny,”
6 without prior knowledge of which person is Stephanie and which person is Tauny, the
7 viewer could not correctly determine the identities of the two people in the photo. *Id.*
8 at 2:4-12. Less descriptive captions like “The Family at the beach” offered even less
9 assistance. *Id.* at 2:12-15.

10 37. “Another problem with photo-specific websites [was] that they ha[d] no
11 search capabilities that permit[ted] users to search for photos of specific individuals.”
12 *Id.* at 2:37-39. As a result, before the inventions disclosed in the Angel Technologies
13 Patents, users wanting to view all photos with a particular person would have to
14 manually access all possible photo albums that include the desired person, a time-
15 prohibiting if not impossible task. *Id.* at 2:39-49.

16 38. Finally, yet another problem was that users wishing to share their photos
17 were required to e-mail or otherwise send their photos to others, *i.e.*, photos were not
18 automatically shared when a user was described in a particular photo. *Id.* at 3:32-35.
19 Sharing photos was therefore extremely time consuming, particularly when sharing a
20 large number of photos and/or sharing photos picturing a large number of individuals.

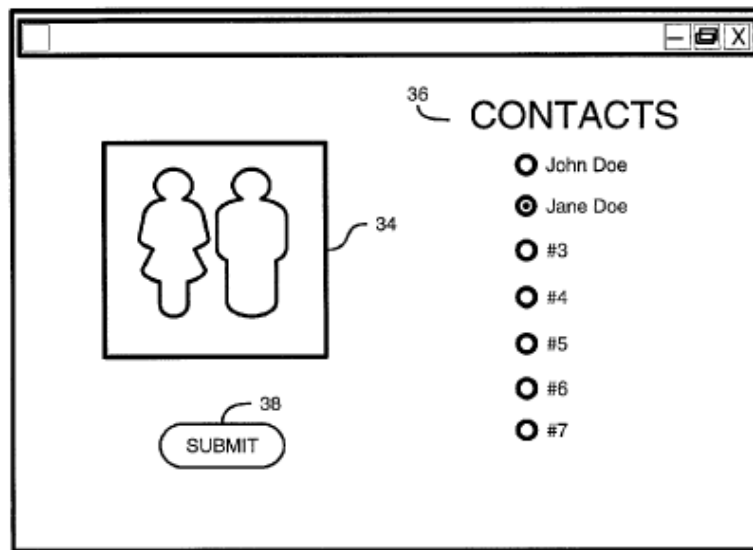
21 39. The claims of the Angel Technologies Patents address these problems
22 and teach a system and method to deliver a streamlined digital image sharing process
23 and allow for fast and easy searching of online photos. This is an improvement to
24 computer or network functionality for which there is no pre-computer analog.

25 40. Specifically, in one or more embodiments, the inventions of the Angel
26 Technologies Patents are implemented with one or more computer programs that
27 operate a host computer and any number of client computers that may access the host
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1 computer via a communications network. *Id.* at 5:8-17. The host computer comprises
 2 a server engine, which is programmed to host a website and serve as a repository for
 3 images and identification information for objects within the images. *Id.* at 6:32-36.

4 41. In one embodiment, “when a user operating one of the user computers
 5 **100**, contacts the host computer **200**, and supplies certain information such as a name,
 6 e-mail address, and/or other naming information,” the host computer then assigns a
 7 “unique user identification number” to the user and stores the number and other
 8 identifying information in a users database. *Id.* at 9:12-18.

9 42. In one embodiment of the invention, “identifying pages” are web pages
 10 that permit users to identify people within uploaded photos. *Id.* at 9:60-63. FIG. 4 of
 11 the Angel Technologies Patents illustrates a sample identifying page which “includes
 12 a photo **34** requested by the user, a list of contacts **36** associated with the user, and a
 13 ‘Submit’ button or link **38**”:

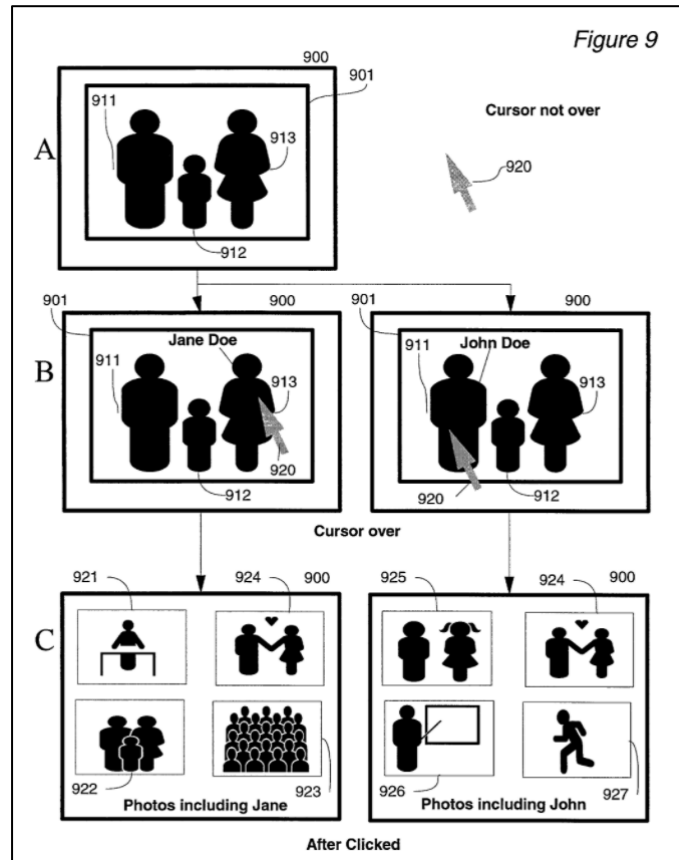


14 *Id.* at FIG. 4, 10:1-4. “The image may be associated with either a server-side image
 15 map or an image type of input element, both of which enable the location of a user’s
 16 click on the image to be detected and sent back to the host computer **200**. The list of
 17 contacts **36** can be transcribed into the identifying pages as HTML elements that
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1 enable the user to select one or more contacts from the list **36**.” *Id.* at 10:6-12; *see also*
2 Ex. B (’291 Patent) at claim 24.

3 43. Once the identifying page is sent to the user computer, the user may
4 identify people within the photo. Ex. A (’432 Patent) at 11:38-41. In one embodiment,
5 the user selects the names of all people that are displayed in the photo from a list of
6 contacts. *Id.* at 11:44-46. In another embodiment, the user is asked to select one
7 contact and identify the specific area within the photograph in which the contact
8 appears, by, for example, clicking on the person’s face. *Id.* at 11:46-49. After the user
9 has identified people in the photo, this information (as well as any information about
10 the specific area in which they exist) is sent back to the host computer. *Id.* at 12:18-22.
11 The host computer may then automatically share a photo with all persons identified
12 therein and/or notify persons identified therein. *Id.* at 12:29-33.

13 44. Once identifying information is received and stored by the host
14 computer, the system can display information about objects identified within images.
15 *Id.* at 13:12-15. For example, while viewing a photo, a list of all people in the photo
16 can be provided or a person’s name can be displayed when a user points a cursor at an
17 object in the image. *Id.* at 13:16-19. As another example, a list of all images in which
18 a person has been identified may be displayed. *Id.* at 19-21. FIG. 9 illustrates various
19 exemplary ways to display identification information:
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Id. at FIG. 9. “Blocks A & B illustrate an interface that displays who has been identified in an image as a user interacts with a page displaying an image” and in Block C, “identification information is displayed by showing a list of images that certain users have been identified in.” *Id.* at 14:58-63.

45. To transition between Block B and Block C, the user sends a request for images (or a list of images) wherein a specified user or users have been identified. *Id.* at 15:46-56. As illustrated in FIG. 9, a user may do this by clicking on an object in a digital image. *See id.* at 15:54-56, FIG. 9.

46. The system can also apply artificial intelligence algorithms against digital images to further define characteristics of images, obtain identifying information, and/or search a database for other possible matches to a named object. *Id.* at 13:6-10.

47. The claims of each of the Angel Technologies Patents recite a specific way to accomplish the features of the inventions. For example, the '432 Patent claims

specific unique IDs and associations that allow users to tag and search photos. *See, e.g., id.* at claims 1 and 6. Similarly, the '291 Patent claims determining associations between users of a network and enabling the use of a contact list to tag photos. *See, e.g., Ex. B ('291 Patent)* at claim 1. The '275 Patent claims the use of a facial recognition algorithm to identify the same tagged user in other photos stored on the system. *See, e.g., Ex. C ('275 Patent)* at claim 1. Finally, the '480 Patent claims the addition of new contacts to a user's contact list after the user views a tagged photo. *See, e.g., Ex. D ('480 Patent)* at claim 1.

III. Facebook and Instagram Have Long Benefitted From Their Use of Angel Technologies' Patented Inventions

48. Both Facebook and Instagram include tagging technology, introduced in 2005 and 2013, respectively. Both companies have credited this feature as critical to their success. As articulated by Ezra Callahan, an early Facebook employee, "[t]he single greatest growth mechanism ever [for Facebook] was photo tagging. It shaped all of the rest of the product decisions that got made."²⁴

49. Facebook's founder and CEO Mark Zuckerberg has similarly commented, "the coolest thing about [Facebook] photos is that you can tag them . . . in the way that makes them linked to people's profiles."²⁵ He has also stated that photo tagging is "more important than every other [Facebook] feature put together," and that "very quickly" Facebook's "photo product became the most used photos product on the web."²⁶ Other Facebook executives have described photo tagging as a

²⁴ *See* Eden Chen Twitter (July 23, 2018), *available at* <https://twitter.com/edenchen/status/1021466130865516544>.

²⁵ Guest Lecture by Mark Zuckerberg, Harvard University at 25:44-57, *available at* https://www.youtube.com/watch?v=_YpaWA_-XRw.

²⁶ A Conversation with Mark Zuckerberg, Web 2.0 Summit 2010 at 19:15-22, *available at* <https://www.youtube.com/watch?v=CRUOI03nZlc>.

1 “core piece of functionality” that made Facebook the “biggest photo product on the
2 web,”²⁷ and its Vice President of Product Design has stated:

3 One of the stories we used to tell in the early days of Facebook was how
4 a small, two-engineer project came to dominate the entire photo sharing
5 landscape in the late 2000s. . . . There were no bells and whistles, save
6 one... The one feature Facebook Photos *did* have, even in its earliest
7 incarnation, was this: photo tagging. . . . What a simple feature. And yet.
8 It made all the difference. Facebook Photos skyrocketed in popularity.
9 Within a few years, it was the most popular photo sharing service on the
10 Internet.²⁸

11 50. Instagram has also touted its tagging feature. For example, Instagram’s
12 co-founder has stated that Instagram has “evolved significantly” due to tagging and
13 other features and that these features have “ma[de] things much better.”²⁹

14 51. Defendants’ emphasis on photo tagging is reflected in the numbers. As of
15 2012, approximately 100 million Facebook photos were tagged each day,³⁰ and one
16 survey found that between 27% and 65.6% of Instagram posts contain one or more
17 tagged users.³¹ Fifty billion photos are uploaded to Instagram each day.³²

18 ²⁷ VentureBeat, “Q&A: Facebook’s Bret Taylor on privacy, the transition from
19 FriendFeed” (May 28, 2010), *available at* <https://venturebeat.com/2010/05/28/bret-taylor-facebook>.

20 ²⁸ See Julie Zhou Twitter (Apr. 8, 2021), *available at* <https://twitter.com/joulee/status/1380183017025511430>.

21 ²⁹ Instagram founders Kevin Systrom and Mike Krieger, Full Code/Mobile Interview
22 at 7:33-7:54, *available at* <https://www.youtube.com/watch?v=z007uYKS6bU>.

23 ³⁰ Malik *et al.*, “Facebook Photo Tagging Culture and Practices Among Digital
24 Natives” at 1, Aalto University (2015), *available at* <https://aaltodoc.aalto.fi/bitstream/handle/123456789/17243/isbn9788896471333.pdf?sequence=1>.

25 ³¹ Mention.com, “Instagram Engagement Report, 2021 on Instagram: What do the
26 numbers say?” at 37, *available at* <https://mention.com/en/reports/instagram/tagging-users/#2>.
27
28

52. Facebook's and Instagram's unauthorized and unlicensed use of the Angel Technologies Patents has substantially contributed to their financial success.

FIRST CLAIM FOR RELIEF

(Against Facebook and Instagram)

INFRINGEMENT OF U.S. PATENT NO. 8,954,432

53. Plaintiff realleges and incorporates by reference the allegations of paragraphs 1 to 52 of this Complaint.

54. The '432 Patent is valid and enforceable under United States Patent Laws.

55. Angel Technologies owns, by assignment, all right, title, and interest in and to the '432 Patent, including the right to collect for past damages.

56. A copy of the '432 Patent is attached as Exhibit A.

'432 Patent Allegations Against Facebook

57. Facebook designed, implemented, and currently uses a variety of tools, systems, applications, websites, and servers to enable users to upload photos to Facebook, tag users in the uploaded photos, share the tagged photos with the tagged users, and identify photos in which a specific user is tagged.³³ For instance, Facebook explains that using its platform, "you can tag a photo to show who's in the photo" and "[w]hen you tag someone, you create a link to their profile" and "they'll be notified."³⁴ On information and belief after reasonable investigation, these tools, systems, applications, websites, and/or servers (the "'432 Infringing Facebook Products") infringe the '432 Patent.

³² Omnicore Agency, "Instagram by the Numbers: Stats, Demographics, & Fun Facts" (Jan. 3, 2021), available at <https://www.omnicoreagency.com/instagram-statistics/>.

³³ See, e.g., <https://www.facebook.com/help/267689476916031>.

³⁴ *Id.*

1 58. Facebook's systems (*e.g.*, Facebook's data centers that serve its
 2 users/products) include a multi-user computer network.³⁵ In this network, information
 3 relating to the existence of at least one user of a computer network in an image is
 4 obtained and displayed. For instance, Facebook offers a tagging technology which
 5 obtains and displays information relating to at least one Facebook user in a photo
 6 uploaded to Facebook.³⁶

7 59. Facebook's systems identify users of this computer network and assign a
 8 unique user identification to each user of the computer network. The unique user
 9 identifier is stored in a users database, which is accessible by other computers of the
 10 computer network. For instance, Facebook assigns users a unique user ID that is
 11 stored and accessible by other computers in the network.³⁷

12 60. Facebook's systems obtain image data from at least one uploading user
 13 of the computer network and assign a unique image identifier to the image data. This
 14 unique image identifier is stored in an images database, which is accessible by other
 15 computers of the computer network. For instance, Facebook receives uploaded images
 16 from its users, and assigns each uploaded image a unique photo ID. The photo ID is
 17 stored in an images database that is accessible by other computers in the network.³⁸

18 61. Facebook's systems obtain identification data from a first tagging user of
 19 the computer network. The identification data comprises the unique image identifier
 20

21 ³⁵ See [https://www.sec.gov/Archives/edgar/data/1326801/000132680119000009/fb-](https://www.sec.gov/Archives/edgar/data/1326801/000132680119000009/fb-12312018x10k.htm)
 22 [12312018x10k.htm](https://www.sec.gov/Archives/edgar/data/1326801/000132680119000009/fb-12312018x10k.htm) at 22.

23 ³⁶ See, *e.g.*, <https://www.facebook.com/help/267689476916031>.

24 ³⁷ See, *e.g.*, <https://developers.facebook.com/docs/graph-api/reference/user/>;
 25 <https://findmyfbid.in/blog/facebook-id-used/>;
 26 <https://www.facebook.com/help/211813265517027>.

27 ³⁸ See, *e.g.*, <https://developers.facebook.com/docs/graph-api/reference/photo/>;
 28 <https://developers.facebook.com/blog/post/498/>.

1 and a pictured user unique identifier of a user of the computer network pictured in the
 2 image data. For instance, Facebook allows users to “tag” themselves and other users
 3 in a photo while viewing the photo. The tagging process includes both the photo ID
 4 (of the tagged photo) and the user ID (of the tagged user).³⁹

5 62. Facebook stores the identification data from the first tagging user in an
 6 identifications database, which is accessible by other computers of the network. A
 7 user identifier may be associated with one or more image identifiers and an image
 8 identifier may be associated with one or more user identifiers. For instance, Facebook
 9 stores tags in an identifications database accessible by other computers of the network.
 10 A user ID may be associated with one or more photo IDs, and a photo ID may be
 11 associated with one or more user IDs.⁴⁰

12 63. Facebook has infringed and is infringing, individually and/or jointly,
 13 either literally or under the doctrine of equivalents, at least claims 1 and 6 of the ’432
 14 Patent in violation of 35 U.S.C. §§ 271, *et seq.*, directly and/or indirectly, by making,
 15 using, offering for sale, selling, offering for lease, leasing in the United States, and/or
 16 importing into the United States without authority or license, the ’432 Infringing
 17 Facebook Products.

18 64. Facebook has been, and currently is, an active inducer of infringement of
 19 one or more claims of the ’432 Patent under 35 U.S.C. § 271(b). On information and
 20 belief, one or more of the ’432 Infringing Facebook Products directly and/or indirectly
 21 infringe (by induced infringement) at least claims 1 and 6 of the ’432 Patent, literally
 22 and/or under the doctrine of equivalents.

23
 24
 25 ³⁹ See, e.g., <https://www.facebook.com/help/227499947267037>;
 26 <https://developers.facebook.com/docs/graph-api/reference/v11.0/photo/tags>.

27 ⁴⁰ See, e.g., [https://developers.facebook.com/docs/graph-](https://developers.facebook.com/docs/graph-api/reference/v11.0/photo/tags)
 28 [api/reference/v11.0/photo/tags](https://developers.facebook.com/docs/graph-api/reference/v11.0/photo/tags).

65. Facebook has been, and currently is, an active contributor to infringement of one or more claims of the '432 Patent under 35 U.S.C. § 271(c). Facebook's affirmative acts of providing and offering to provide, in this District and elsewhere in the United States, the '432 Infringing Facebook Products and causing the '432 Infringing Facebook Products to be used contribute to Facebook users' direct infringement of at least claims 1 and 6 of the '432 Patent. The accused components within the '432 Infringing Facebook Products are material to the inventions of the '432 Patent, are not staple articles or commodities of commerce, have no substantial non-infringing uses, and are known by Facebook to be especially made or especially adopted for use in infringement of the '432 Patent.

66. Facebook has knowledge of the '432 Patent and its infringement. The application for the Angel Technologies Patents is listed as a Reference Cited on the face of Facebook's photo tagging patents, U.S. Patent Nos. 7,945,653 and 9,646,027.⁴¹ In addition, the application for the Angel Technologies Patents was specifically discussed by Facebook with the Examiner of Facebook's photo tagging patent, U.S. Patent No. 9,646,027, as prior art that discloses a "method and apparatus for obtaining information relating to the existence of at least one object in an image."⁴²

67. In addition, member(s) of the team that developed Facebook Photos were member(s) of Sacko.com and used Sacko.com's tagging technologies before the launch of Facebook Photos. During this time, Sacko.com indicated that its technology

⁴¹ Facebook has asserted U.S. Patent No. 7,945,653 in litigation, at least against Yahoo! *See Yahoo! Inc. v. Facebook, Inc.*, 12-CV-01212 (N. D. Cal.), Docket Entry No. 16 (Facebook, Inc.'s Answer and Counterclaims) at 13-14.

⁴² File History of U.S. Patent Application No. 13/097,521, Notice of Allowability (Mar. 1, 2017) at 13.

1 was “patent-pending.”⁴³ On information and belief, Facebook was thereby aware of
 2 Sacko.com and the inventions of the Angel Technologies Patents, and knew or should
 3 have known of the ’432 Patent.

4 68. Facebook was also made aware of the Angel Technologies Patents in the
 5 summer of 2018.

6 69. This Complaint also serves as notice of the ’432 Patent and Facebook’s
 7 infringement.

8 70. Facebook intentionally encourages and aids at least its users to directly
 9 infringe the ’432 Patent.

10 71. Facebook provides the ’432 Infringing Facebook Products and
 11 instructions to its users such that they will use the ’432 Infringing Facebook Products
 12 in a directly infringing manner. Facebook markets the ’432 Infringing Facebook
 13 Products to its users and provides instructions to its users on how to use the
 14 functionality of the ’432 Patent on its website and elsewhere.⁴⁴

15 72. Facebook users directly infringe by using the ’432 Infringing Facebook
 16 Products in their intended manner. Facebook induces such infringement by providing
 17 the ’432 Infringing Facebook Products and instructions to enable and facilitate
 18 infringement. On information and belief, Facebook specifically intends that its actions
 19 will result in infringement of the ’432 Patent or has taken deliberate actions to avoid
 20 learning of infringement.

21 73. Additional allegations regarding Facebook’s knowledge of the ’432
 22 Patent and willful infringement will likely have evidentiary support after a reasonable
 23 opportunity for discovery.

24
 25 ⁴³ See Sacko’s Technology, Sacko.com Internet Archive, *available at*
 26 [https://web.archive.org/web/20021209213931/http://www.sacko.com:80/us/technolog](https://web.archive.org/web/20021209213931/http://www.sacko.com:80/us/technology.asp)
 27 [y.asp](https://web.archive.org/web/20021209213931/http://www.sacko.com:80/us/technology.asp).

28 ⁴⁴ See, e.g., <https://www.facebook.com/help/267689476916031>.

74. Facebook's infringement of the '432 Patent is willful and deliberate, entitling Angel Technologies to enhanced damages and attorneys' fees.

75. Facebook's infringement of the '432 Patent is exceptional and entitles Angel Technologies to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

76. Angel Technologies is entitled to recover from Facebook all damages that Angel Technologies has sustained as a result of Facebook's infringement of the '432 Patent, including without limitation not less than a reasonable royalty.

'432 Patent Allegations Against Instagram

77. Instagram designed, implemented, and currently uses a variety of tools, systems, applications, websites, and servers to enable users to upload photos to Instagram, tag users in the uploaded photos, share the tagged photos with the tagged user, and identify photos in which a specific user is tagged.⁴⁵ On information and belief after reasonable investigation, these tools, systems, applications, websites, and/or servers (the "'432 Infringing Instagram Products") infringe the '432 Patent.

78. Instagram's systems (*e.g.*, Facebook's and Instagram's data centers that serve Instagram's users/products) include a multi-user computer network.⁴⁶ In this network, information relating to the existence of at least one user of a computer network in an image is obtained and displayed. For instance, Instagram offers a

⁴⁵ See, *e.g.*, <https://www.facebook.com/help/instagram/627963287377328>; <https://www.businessinsider.com/how-to-tag-someone-on-instagram>; <https://www.godaddy.com/garage/how-to-tag-on-instagram/#mentions-account-tags>.

⁴⁶ See <https://instagram-engineering.com/instagrator-pt-2-scaling-our-infrastructure-to-multiple-data-centers-5745cbad7834>; <https://www.sec.gov/Archives/edgar/data/1326801/000132680119000009/fb-12312018x10k.htm> at 22.

1 tagging technology which obtains and displays information relating to at least one
2 Instagram user in a photo uploaded to Instagram.⁴⁷

3 79. Instagram's systems identify users of this computer network and assign a
4 unique user identification to each user of the computer network. The unique user
5 identifier is stored in a users database, which is accessible by other computers of the
6 computer network. For instance, Instagram assigns a unique user ID that is stored and
7 accessible by other computers in the network.⁴⁸

8 80. Instagram's systems obtain image data from at least one uploading user
9 of the computer network and assign a unique image identifier to the image data. This
10 unique image identifier is stored in an images database, which is accessible by other
11 computers of the computer network. For instance, Instagram receives uploaded images
12 from its users, and assigns each uploaded image a unique media ID. The media ID is
13 stored in an images database that is accessible by other computers in the network.⁴⁹

14 81. Instagram's systems obtain identification data from a first tagging user of
15 the network. The identification data comprises the unique image identifier and a
16 pictured user unique identifier of a user of the computer network pictured in the image
17 data. For instance, Instagram allows users to "tag" themselves and other users in a
18 photo while viewing the photo. The tagging process includes both the media ID (of
19 the tagged photo) and the user ID (of the tagged user).⁵⁰

20 82. Instagram stores the identification data from the first tagging user in an
21 identifications database, which is accessible by other computers of the network. A

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23 ⁴⁷ See, e.g., <https://www.facebook.com/help/instagram/627963287377328>.

24 ⁴⁸ See <https://developers.facebook.com/docs/instagram-basic-display-api/reference/user>; <https://developers.facebook.com/docs/instagram-api/reference/ig-user>.

25
26 ⁴⁹ See <https://developers.facebook.com/docs/instagram-api/reference/ig-media>.

27
28 ⁵⁰ See, e.g., <https://www.facebook.com/help/instagram/627963287377328>.

1 user identifier may be associated with one or more image identifiers and an image
 2 identifier may be associated with one or more user identifiers. For instance, Instagram
 3 stores tags in an identifications database accessible by other computers of the network.
 4 A user ID may be associated with one or more media IDs, and a media ID may be
 5 associated with one or more user IDs.⁵¹

6 83. Instagram has infringed and is infringing, individually and/or jointly,
 7 either literally or under the doctrine of equivalents, at least claims 1 and 6 of the '432
 8 Patent in violation of 35 U.S.C. §§ 271, *et seq.*, directly and/or indirectly, by making,
 9 using, offering for sale, selling, offering for lease, leasing in the United States, and/or
 10 importing into the United States without authority or license, the '432 Infringing
 11 Instagram Products.

12 84. Instagram has been, and currently is, an active inducer of infringement of
 13 one or more claims of the '432 Patent under 35 U.S.C. § 271(b). On information and
 14 belief, one or more of the '432 Infringing Instagram Products directly and/or
 15 indirectly infringe (by induced infringement) at least claims 1 and 6 of the '432
 16 Patent, literally and/or under the doctrine of equivalents.

17 85. Instagram has been, and currently is, an active contributor to
 18 infringement of one or more claims of the '432 Patent under 35 U.S.C. § 271(c).
 19 Instagram's affirmative acts of providing and offering to provide, in this District and
 20 elsewhere in the United States, the '432 Infringing Instagram Products and causing the
 21 '432 Infringing Instagram Products to be used contribute to Instagram users' direct
 22 infringement of at least claims 1 and 6 of the '432 Patent. The accused components
 23 within the '432 Infringing Instagram Products are material to the inventions of the
 24 '432 Patent, are not staple articles or commodities of commerce, have no substantial
 25

26
 27 ⁵¹ See, e.g., [https://developers.facebook.com/docs/instagram-api/reference/ig-](https://developers.facebook.com/docs/instagram-api/reference/ig-user/tags)
 28 [user/tags](https://developers.facebook.com/docs/instagram-api/reference/ig-user/tags).

1 non-infringing uses, and are known by Instagram to be especially made or especially
2 adopted for use in infringement of the '432 Patent.

3 86. Instagram has knowledge of the '432 Patent and its infringement. The
4 application for the Angel Technologies Patents is listed as a Reference Cited on the
5 face of Facebook's photo tagging patents, U.S. Patent Nos. 7,945,653 and 9,646,027.
6 In addition, the application for the Angel Technologies Patents was specifically
7 discussed by Facebook with the Examiner of Facebook's photo tagging patent, U.S.
8 Patent No. 9,646,027, as prior art that discloses a "method and apparatus for obtaining
9 information relating to the existence of at least one object in an image."⁵² This
10 knowledge was received by Facebook after it acquired Instagram.

11 87. In addition, member(s) of the team that developed Facebook Photos were
12 member(s) of Sacko.com and used Sacko.com's tagging technologies before the
13 launch of Facebook Photos. During this time, Sacko.com indicated that its technology
14 was "patent-pending."⁵³ On information and belief, Facebook was thereby aware of
15 Sacko.com and the inventions of the Angel Technologies Patents, and knew or should
16 have known of the '432 Patent.

17 88. Facebook was also made aware of the Angel Technologies Patents in the
18 summer of 2018.

19 89. These facts demonstrate Instagram's knowledge of the '432 Patent
20 including because Facebook and Instagram share employees and Facebook exerts
21 control over Instagram.

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23
24 ⁵² File History of U.S. Patent Application No. 13/097,521, Notice of Allowability
25 (Mar. 1, 2017) at 13.

26 ⁵³ See Sacko's Technology, Sacko.com Internet Archive, *available at*
27 [https://web.archive.org/web/20021209213931/http://www.sacko.com:80/us/technolog](https://web.archive.org/web/20021209213931/http://www.sacko.com:80/us/technology.asp)
28 [y.asp](https://web.archive.org/web/20021209213931/http://www.sacko.com:80/us/technology.asp).

90. Instagram was founded in 2010 and acquired by Facebook in 2012. At the time of acquisition, Instagram had just 13 employees.⁵⁴ Since the acquisition, Facebook and Instagram have shared a revolving door of employees. For example, Marne Levine served as Vice President of Global Public Policy at Facebook from 2010 to 2014, when she became Instagram's first Chief Operating Officer.⁵⁵ In 2018, she moved back to Facebook as its Vice President of Global Partnerships, Business and Corporate Development, and in June 2021, she was named Chief Business Officer of Facebook.⁵⁶ As another example, in or around 2018, Instagram's Vice President of Product Kevin Weil joined Facebook's blockchain team.⁵⁷

91. Several employees also perform work for both companies simultaneously. For example, Adam Mosseri began working at Facebook in 2008, and most recently served as its Vice President of Product Management.⁵⁸ In 2018, Mosseri transitioned to Head of Product at Instagram, and now serves as the Head of Instagram.⁵⁹ Mosseri indicates on his LinkedIn page that he currently works for both companies.⁶⁰ In addition, Mosseri is "part of [Mark] Zuckerberg's inner circle of

⁵⁴ See, e.g., *Business Insider*, "Instagram is celebrating its 10th birthday. A decade after launch, here's where its original 13 employees have ended up." (Oct. 6, 2020), available at <https://www.businessinsider.com/instagram-first-13-employees-full-list-2020-4>.

⁵⁵ Marne Levine, Wikipedia.org, available at https://en.wikipedia.org/wiki/Marne_Levine.

⁵⁶ *Id.*

⁵⁷ *The Verge*, "Facebook is creating a mysterious blockchain division" (May 8, 2018), available at <https://www.theverge.com/2018/5/8/17332894/facebook-blockchain-group-employee-reshuffle-restructure-david-marcus-kevin-weil>.

⁵⁸ Adam Mosseri LinkedIn, available at <https://www.linkedin.com/in/mosseri/>.

⁵⁹ *Id.*

⁶⁰ *Id.*

1 friends and lieutenants,”⁶¹ and even though he now works at Instagram, he reports to
 2 Facebook’s Chief Product Officer Chris Cox.⁶² As another example, in 2017 and
 3 2018, Rachel Whetstone served as Vice President of Communications at Facebook
 4 and oversaw communications for Instagram, WhatsApp, and Facebook Messenger,⁶³
 5 and Chris Cox, Zuckerberg’s “closest and most trusted confidant” and “longtime head
 6 of Facebook’s core product” similarly “oversees WhatsApp and Instagram.”⁶⁴ Finally,
 7 employee James Everingham describes himself as having been employed by Facebook
 8 from August 2015 to the present, first holding the title of Head of Engineering at
 9 Instagram where he worked in “senior engineering management at
 10 Instagram/Facebook.”⁶⁵ Everingham is now Vice President of Engineering at Novi,
 11 Facebook’s digital wallet product.⁶⁶

12
 13
 14 ⁶¹ TechCrunch, “Meet Adam Mosseri, the new head of Instagram” (Oct. 1, 2018),
 15 available at [https://techcrunch.com/2018/10/01/adam-mosseri-head-of-](https://techcrunch.com/2018/10/01/adam-mosseri-head-of-instagram/?guccounter=1&guce_referrer=aHR0cHM6Ly9lb3JkaWUub3JnLw&guce_referrer_sig=AQAAAJwIvG_cWaLWutit0vgEtcGhHChDSU8dPj9o2XnXIDDQaFb0kr1lVelavWXSiwC8uA2RuCrCe7bNYUOx7PMvQFwu_MWUMScfU7qt1-s-Giu-XWT6keIdQuVFEicXU0GAFuwFu0TygtoScylUr63uRuE9BXVAfVLt6FlnuJHWVD5k)
 16 [instagram/?guccounter=1&guce_referrer=aHR0cHM6Ly9lb3JkaWUub3JnLw&guce_referrer_sig=AQAAAJwIvG_cWaLWutit0vgEtcGhHChDSU8dPj9o2XnX](https://techcrunch.com/2018/10/01/adam-mosseri-head-of-instagram/?guccounter=1&guce_referrer=aHR0cHM6Ly9lb3JkaWUub3JnLw&guce_referrer_sig=AQAAAJwIvG_cWaLWutit0vgEtcGhHChDSU8dPj9o2XnXIDDQaFb0kr1lVelavWXSiwC8uA2RuCrCe7bNYUOx7PMvQFwu_MWUMScfU7qt1-s-Giu-XWT6keIdQuVFEicXU0GAFuwFu0TygtoScylUr63uRuE9BXVAfVLt6FlnuJHWVD5k)
 17 [IDDQaFb0kr1lVelavWXSiwC8uA2RuCrCe7bNYUOx7PMvQFwu_MWUMScfU7qt](https://techcrunch.com/2018/10/01/adam-mosseri-head-of-instagram/?guccounter=1&guce_referrer=aHR0cHM6Ly9lb3JkaWUub3JnLw&guce_referrer_sig=AQAAAJwIvG_cWaLWutit0vgEtcGhHChDSU8dPj9o2XnXIDDQaFb0kr1lVelavWXSiwC8uA2RuCrCe7bNYUOx7PMvQFwu_MWUMScfU7qt1-s-Giu-XWT6keIdQuVFEicXU0GAFuwFu0TygtoScylUr63uRuE9BXVAfVLt6FlnuJHWVD5k)
 18 [1-s-Giu-](https://techcrunch.com/2018/10/01/adam-mosseri-head-of-instagram/?guccounter=1&guce_referrer=aHR0cHM6Ly9lb3JkaWUub3JnLw&guce_referrer_sig=AQAAAJwIvG_cWaLWutit0vgEtcGhHChDSU8dPj9o2XnXIDDQaFb0kr1lVelavWXSiwC8uA2RuCrCe7bNYUOx7PMvQFwu_MWUMScfU7qt1-s-Giu-XWT6keIdQuVFEicXU0GAFuwFu0TygtoScylUr63uRuE9BXVAfVLt6FlnuJHWVD5k)
 19 [XWT6keIdQuVFEicXU0GAFuwFu0TygtoScylUr63uRuE9BXVAfVLt6FlnuJHWV](https://techcrunch.com/2018/10/01/adam-mosseri-head-of-instagram/?guccounter=1&guce_referrer=aHR0cHM6Ly9lb3JkaWUub3JnLw&guce_referrer_sig=AQAAAJwIvG_cWaLWutit0vgEtcGhHChDSU8dPj9o2XnXIDDQaFb0kr1lVelavWXSiwC8uA2RuCrCe7bNYUOx7PMvQFwu_MWUMScfU7qt1-s-Giu-XWT6keIdQuVFEicXU0GAFuwFu0TygtoScylUr63uRuE9BXVAfVLt6FlnuJHWVD5k)
 20 [D5k](https://techcrunch.com/2018/10/01/adam-mosseri-head-of-instagram/?guccounter=1&guce_referrer=aHR0cHM6Ly9lb3JkaWUub3JnLw&guce_referrer_sig=AQAAAJwIvG_cWaLWutit0vgEtcGhHChDSU8dPj9o2XnXIDDQaFb0kr1lVelavWXSiwC8uA2RuCrCe7bNYUOx7PMvQFwu_MWUMScfU7qt1-s-Giu-XWT6keIdQuVFEicXU0GAFuwFu0TygtoScylUr63uRuE9BXVAfVLt6FlnuJHWVD5k).

21 ⁶² *The Verge*, “Facebook names longtime executive Adam Mosseri as new head of
 22 Instagram” (Oct. 1, 2018), available at
 23 [https://www.theverge.com/2018/10/1/17902926/new-instagram-head-adam-mosseri-](https://www.theverge.com/2018/10/1/17902926/new-instagram-head-adam-mosseri-facebook-kevin-systrom-mike-krieger-departure)
 24 [facebook-kevin-systrom-mike-krieger-departure](https://www.theverge.com/2018/10/1/17902926/new-instagram-head-adam-mosseri-facebook-kevin-systrom-mike-krieger-departure).

25 ⁶³ *Wired*, “15 Months of Fresh Hell Inside Facebook” (Apr. 16, 2019), available at
 26 <https://www.wired.com/story/facebook-mark-zuckerberg-15-months-of-fresh-hell/>.

27 ⁶⁴ *Id.*

28 ⁶⁵ James Everingham LinkedIn, available at <https://www.linkedin.com/in/jevering/>.

⁶⁶ *Id.*

1 92. In addition, although Facebook and Instagram began as separate
2 companies, Facebook now “exert[s] more control” over Instagram.⁶⁷ For example,
3 Facebook controls Instagram’s budget.⁶⁸

4 93. This Complaint also serves as notice of the ’432 Patent and Instagram’s
5 infringement.

6 94. Instagram intentionally encourages and aids at least its users to directly
7 infringe the ’432 Patent.

8 95. Instagram provides the ’432 Infringing Instagram Products and
9 instructions to its users such that they will use the ’432 Infringing Instagram Products
10 in a directly infringing manner. Instagram markets the ’432 Infringing Instagram
11 Products to its users and provides instructions to its users on how to use the
12 functionality of the ’432 Patent on its website and elsewhere.⁶⁹

13 96. Instagram users directly infringe by using the ’432 Infringing Instagram
14 Products in their intended manner. Instagram induces such infringement by providing
15 the ’432 Infringing Instagram Products and instructions to enable and facilitate
16 infringement. On information and belief, Instagram specifically intends that its actions
17 will result in infringement of the ’432 Patent or has taken deliberate actions to avoid
18 learning of infringement.

19 97. Additional allegations regarding Instagram’s knowledge of the ’432
20 Patent and willful infringement will likely have evidentiary support after a reasonable
21 opportunity for discovery.

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25 ⁶⁷ *Wired*, “15 Months of Fresh Hell Inside Facebook” (Apr. 16, 2019), *available at*
<https://www.wired.com/story/facebook-mark-zuckerberg-15-months-of-fresh-hell/>.

26 ⁶⁸ *Id.*

27 ⁶⁹ *See, e.g.*, <https://www.facebook.com/help/instagram/627963287377328>.
28

1 98. Instagram's infringement of the '432 Patent is willful and deliberate,
2 entitling Angel Technologies to enhanced damages and attorneys' fees.

3 99. Instagram's infringement of the '432 Patent is exceptional and entitles
4 Angel Technologies to attorneys' fees and costs incurred in prosecuting this action
5 under 35 U.S.C. § 285.

6 100. Angel Technologies is entitled to recover from Instagram all damages
7 that Angel Technologies has sustained as a result of Instagram's infringement of the
8 '432 Patent, including without limitation not less than a reasonable royalty.

9 **SECOND CLAIM FOR RELIEF**

10 **(Against Facebook and Instagram)**

11 **INFRINGEMENT OF U.S. PATENT NO. 9,959,291**

12 101. Plaintiff realleges and incorporates by reference the allegations of
13 paragraphs 1 to 52 of this Complaint.

14 102. The '291 Patent is valid and enforceable under United States Patent
15 Laws.

16 103. Angel Technologies owns, by assignment, all right, title, and interest in
17 and to the '291 Patent, including the right to collect for past damages.

18 104. A copy of the '291 Patent is attached as Exhibit B.

19 **'291 Patent Allegations Against Facebook**

20 105. Facebook designed, implemented, and currently uses a variety of tools,
21 systems, applications, websites, and servers for storing and sharing photos online and
22 permitting the identification of objects within those photos through the use of a
23 contact or "friend" list.⁷⁰ On information and belief after reasonable investigation,
24 these tools, systems, applications, websites, and/or servers (the "'291 Infringing
25 Facebook Products") infringe the '291 Patent.

26
27 ⁷⁰ See, e.g., <https://www.facebook.com/help/124970597582337>.
28

106. Facebook's systems include a non-transitory computer readable medium having computer executable instructions stored thereon (e.g., code present on Facebook's data centers).⁷¹ These instructions are executed by at least one processor.

107. Facebook's systems identify a plurality of users of a computer system including a plurality of computing devices connected via a communications network. One or more of the plurality of users has a unique user identifier stored in memory accessible to one or more of a plurality of computing devices. The plurality of users include a first and second user, the first user being different from the second user. For instance, Facebook identifies a plurality of users of a computer system including a plurality of computing devices connected via Facebook's data centers that serve its users/products and/or the Internet.⁷² Facebook has billions of users, including a first user and second user that are different, and each Facebook user has a unique user ID stored in memory accessible throughout the network.⁷³

108. Facebook's systems determine, from memory accessible to one or more of the plurality of computing devices, associations between descriptive information about one or more of the plurality of users of the computer system and unique user identifiers of the users. The associations include an association between descriptive information previously provided by the first user and a unique user identifier of the first user. For instance, Facebook's systems determine, from memory accessible to the computing device(s), associations between information about Facebook users

⁷¹ See <https://www.sec.gov/Archives/edgar/data/1326801/000132680119000009/fb-12312018x10k.htm> at 22.

⁷² *Id.*

⁷³ <https://backlinko.com/facebook-users>;
<https://www.facebook.com/help/263677170960225/>.

1 contained within their profiles and/or accounts and user IDs.⁷⁴ The profile and/or
2 account information is provided by the user.

3 109. Facebook's systems determine, from memory accessible to one or more
4 of the plurality of computing devices, associations between the plurality of users of
5 the computer system. The associations include an association between the first user
6 and the second user. For instance, Facebook's systems determine, from memory
7 accessible to the computing device(s), "friend" and "group" status between Facebook
8 users.⁷⁵

9 110. Facebook's systems determine, from a plurality of digital media
10 accessible to one or more of the plurality of computing devices, a unique digital media
11 identifier corresponding to a digital media selection input by the second user. For
12 instance, Facebook's systems determine a unique photo ID that corresponds to a
13 digital media input by a second Facebook user.⁷⁶

14 111. Facebook's systems provide, via one or more of the plurality of
15 computing devices, a graphical user interface ("GUI") for presentation to the second
16 user. The GUI is operative to receive one or more inputs from the second user
17 indicating a selection of one or more of the plurality of users from descriptive
18 information associated with unique user identifiers of the one or more of the plurality
19 of users. The GUI is configured to display descriptive information associated with
20 unique user identifiers of one or more of the plurality of users with a determined
21 association with the second user. For instance, Facebook's systems present a second
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23 ⁷⁴ See, e.g., <https://developers.facebook.com/docs/graph-api/reference/user/>;
24 <https://www.facebook.com/help/188157731232424/>.

25 ⁷⁵ See <https://developers.facebook.com/docs/graph-api/reference/v12.0/user/friends/>;
26 <https://www.facebook.com/help/727473118066542/>.

27 ⁷⁶ See, e.g., <https://developers.facebook.com/docs/graph-api/reference/photo/>;
28 <https://developers.facebook.com/blog/post/498/>.

1 user with a GUI where he/she/they can tag other users by selecting descriptive
 2 information associated with the tagged user's user ID.⁷⁷ The GUI displays the profile
 3 and/or account information associated with user IDs of the user(s) having a
 4 determined association with the second user.

5 112. Facebook's systems receive, via the communications network, an input
 6 initiated by the second user via the GUI, where the input indicates a selection of the
 7 first user from descriptive information associated with the unique user identifier of the
 8 first user. Facebook's systems determine the unique user identifier of the first user
 9 from the received input initiated by the second user indicating the selection of the first
 10 user. For instance, Facebook's systems receive a second Facebook user's input, via
 11 the GUI, indicating the tagging of a first user from the profile and/or account
 12 information associated with that user's user ID. Facebook's systems also determine
 13 from the tagging user's tagging action the user ID of the tagged user.⁷⁸

14 113. In response to receiving the input initiated by the second user indicating
 15 the selection of the first user and to determining the unique user identifier of the first
 16 user, Facebook's systems store in memory accessible to one or more of the plurality of
 17 computing devices an association between the unique user identifier of the first user
 18 and the unique digital media identifier corresponding to the digital media selection
 19 input by the second user. For instance, in response to the actions noted above,
 20 Facebook's systems store in memory accessible to the computing device(s) an
 21 association between the tagged user's user ID and the unique photo ID corresponding
 22 to the tagging user's tagging action.⁷⁹ The same photo and digital media identifier
 23

24 ⁷⁷ See, e.g., <https://www.facebook.com/help/124970597582337>.

25 ⁷⁸ See, e.g., <https://developers.facebook.com/docs/graph-api/reference/post>;
 26 <https://developers.facebook.com/docs/graph-api/reference/user>.

27 ⁷⁹ See <https://developers.facebook.com/docs/graph-api/reference/v11.0/photo/tags>.
 28

1 appear in both the tagging user's profile and/or feed and the tagged user's profile
2 and/or feed.⁸⁰

3 114. Facebook has infringed and is infringing, individually and/or jointly,
4 either literally or under the doctrine of equivalents, at least claims 1, 24, 25, and 26 of
5 the '291 Patent in violation of 35 U.S.C. §§ 271, *et seq.*, directly and/or indirectly, by
6 making, using, offering for sale, selling, offering for lease, leasing in the United
7 States, and/or importing into the United States without authority or license, the '291
8 Infringing Facebook Products.

9 115. Facebook has been, and currently is, an active inducer of infringement of
10 one or more claims of the '291 Patent under 35 U.S.C. § 271(b). On information and
11 belief, one or more of the '291 Infringing Facebook Products directly and/or indirectly
12 infringe (by induced infringement) at least claims 1, 24, 25, and 26 of the '291 Patent,
13 literally and/or under the doctrine of equivalents.

14 116. Facebook has been, and currently is, an active contributor to infringement
15 of one or more claims of the '291 Patent under 35 U.S.C. § 271(c). Facebook's
16 affirmative acts of providing and offering to provide, in this District and elsewhere in
17 the United States, the '291 Infringing Facebook Products and causing the '291
18 Infringing Facebook Products to be used contribute to Facebook users' direct
19 infringement of at least claims 1, 24, 25, and 26 of the '291 Patent. The accused
20 components within the '291 Infringing Facebook Products are material to the
21 inventions of the '291 Patent, are not staple articles or commodities of commerce,
22 have no substantial non-infringing uses, and are known by Facebook to be especially
23 made or especially adopted for use in infringement of the '291 Patent.

24 117. Facebook has knowledge of the '291 Patent and its infringement. The
25 application for the Angel Technologies Patents is listed as a Reference Cited on the
26 face of Facebook's photo tagging patents, U.S. Patent Nos. 7,945,653 and 9,646,027.

27 ⁸⁰ See, e.g., <https://developers.facebook.com/docs/graph-api/reference/user/photos/>.
28

1 In addition, the application for the Angel Technologies Patents was specifically
 2 discussed by Facebook with the Examiner of Facebook's photo tagging patent, U.S.
 3 Patent No. 9,646,027, as prior art that discloses a "method and apparatus for obtaining
 4 information relating to the existence of at least one object in an image."⁸¹

5 118. In addition, member(s) of the team that developed Facebook Photos were
 6 member(s) of Sacko.com and used Sacko.com's tagging technologies before the
 7 launch of Facebook Photos. During this time, Sacko.com indicated that its technology
 8 was "patent-pending."⁸² On information and belief, Facebook was thereby aware of
 9 Sacko.com and the inventions of the Angel Technologies Patents, and knew or should
 10 have known of the '291 Patent.

11 119. Facebook was also made aware of the Angel Technologies Patents in the
 12 summer of 2018.

13 120. This Complaint also serves as notice of the '291 Patent and Facebook's
 14 infringement.

15 121. Facebook intentionally encourages and aids at least its users to directly
 16 infringe the '291 Patent.

17 122. Facebook provides the '291 Infringing Facebook Products and
 18 instructions to its users such that they will use the '291 Infringing Facebook Products
 19 in a directly infringing manner. Facebook markets the '291 Infringing Facebook
 20 Products to its users and provides instructions to its users on how to use the
 21 functionality of the '291 Patent on its website and elsewhere.⁸³

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 23 ⁸¹ File History of U.S. Patent Application No. 13/097,521, Notice of Allowability
 24 (Mar. 1, 2017) at 13.

25 ⁸² See Sacko's Technology, Sacko.com Internet Archive, *available at*
 26 [https://web.archive.org/web/20021209213931/http://www.sacko.com:80/us/technolog](https://web.archive.org/web/20021209213931/http://www.sacko.com:80/us/technology.asp)
 27 [y.asp](https://web.archive.org/web/20021209213931/http://www.sacko.com:80/us/technology.asp).

28 ⁸³ See, e.g., <https://www.facebook.com/help/122175507864081>.

123. Facebook users directly infringe by using the '291 Infringing Facebook Products in their intended manner. Facebook induces such infringement by providing the '291 Infringing Facebook Products and instructions to enable and facilitate infringement. On information and belief, Facebook specifically intends that its actions will result in infringement of the '291 Patent or has taken deliberate actions to avoid learning of infringement.

124. Additional allegations regarding Facebook's knowledge of the '291 Patent and willful infringement will likely have evidentiary support after a reasonable opportunity for discovery.

125. Facebook's infringement of the '291 Patent is willful and deliberate, entitling Angel Technologies to enhanced damages and attorneys' fees.

126. Facebook's infringement of the '291 Patent is exceptional and entitles Angel Technologies to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

127. Angel Technologies is entitled to recover from Facebook all damages that Angel Technologies has sustained as a result of Facebook's infringement of the '291 Patent, including without limitation not less than a reasonable royalty.

'291 Patent Allegations Against Instagram

128. Instagram designed, implemented, and currently uses a variety of tools, systems, applications, websites, and servers for storing and sharing photos online and permitting the identification of objects within those photos through the use of a contact or "follow" list.⁸⁴ On information and belief after reasonable investigation, these tools, systems, applications, websites, and/or servers (the "'291 Infringing Instagram Products") infringe the '291 Patent.

129. Instagram's systems include a non-transitory computer readable medium having computer executable instructions stored thereon (e.g., code present on

⁸⁴ See, e.g., <https://www.facebook.com/help/instagram/627963287377328>.

Facebook's data centers used by Instagram).⁸⁵ These instructions are executed by at least one processor.

130. Instagram's systems identify a plurality of users of a computer system including a plurality of computing devices connected via a communications network. One or more of the plurality of users has a unique user identifier stored in memory accessible to one or more of a plurality of computing devices. The plurality of users include a first and second user, the first user being different from the second user. For instance, Instagram identifies a plurality of users of a computer system including a plurality of computing devices connected via Facebook's and Instagram's data centers that serve Instagram's users/products and/or the Internet.⁸⁶ Instagram has approximately 1 billion users, including a first user and second user that are different, and each Instagram user has a unique Instagram ID stored in memory accessible throughout the network.⁸⁷

131. Instagram's systems determine, from memory accessible to one or more of the plurality of computing devices, associations between descriptive information about one or more of the plurality of users of the computer system and unique user identifiers of the users. The associations include an association between descriptive information previously provided by the first user and a unique user identifier of the

⁸⁵ See <https://www.sec.gov/Archives/edgar/data/1326801/000132680119000009/fb-12312018x10k.htm> at 22; <https://instagram-engineering.com/instagration-pt-2-scaling-our-infrastructure-to-multiple-data-centers-5745cbad7834>.

⁸⁶ <https://www.sec.gov/Archives/edgar/data/1326801/000132680119000009/fb-12312018x10k.htm> at 22; <https://instagram-engineering.com/instagration-pt-2-scaling-our-infrastructure-to-multiple-data-centers-5745cbad7834>.

⁸⁷ See <https://www.statista.com/statistics/253577/number-of-monthly-active-instagram-users/>; <https://developers.facebook.com/docs/instagram-basic-display-api/reference/user>; <https://developers.facebook.com/docs/instagram-api/reference/ig-user>.

1 first user. For instance, Instagram's systems determine, from memory accessible to the
 2 computing device(s), associations between user and/or account information about
 3 Instagram users and user IDs.⁸⁸ The user and/or account information is provided by
 4 the user.⁸⁹

5 132. Instagram's systems determine, from memory accessible to one or more
 6 of the plurality of computing devices, associations between the plurality of users of
 7 the computer system. The associations include an association between the first user
 8 and the second user.⁹⁰ For instance, Instagram's systems determine, from memory
 9 accessible to the computing device(s), associations between Instagram users.⁹¹

10 133. Instagram's systems determine, from a plurality of digital media
 11 accessible to one or more of the plurality of computing devices, a unique digital media
 12 identifier corresponding to a digital media selection input by the second user. For
 13 instance, Instagram's systems determine a unique media ID that corresponds to a
 14 digital media input by a second Instagram user.⁹²

15 134. Instagram's systems provide, via one or more of the plurality of
 16 computing devices, a GUI for presentation to the second user. The GUI is operative to
 17 receive one or more inputs from the second user indicating a selection of one or more
 18

19 ⁸⁸ See, e.g., <https://developers.facebook.com/docs/graph-api/reference/instagram-user/>;
 20 <https://developers.facebook.com/docs/instagram-basic-display-api/reference/user/>;
 21 <https://developers.facebook.com/docs/instagram-api/reference/ig-user/>.

22 ⁸⁹ See <https://help.instagram.com/155940534568753>;
 23 <https://help.instagram.com/116836975134193>.

24 ⁹⁰ See <https://help.instagram.com/533052966709644>.

25 ⁹¹ See <https://developers.facebook.com/docs/graph-api/reference/instagram-user/>;
 26 <https://developers.facebook.com/docs/instagram-basic-display-api/reference/user/>.

27 ⁹² See, e.g., [https://developers.facebook.com/docs/instagram-basic-display-](https://developers.facebook.com/docs/instagram-basic-display-api/reference/media)
 28 [api/reference/media](https://developers.facebook.com/docs/instagram-api/reference/ig-media); [https://developers.facebook.com/docs/instagram-](https://developers.facebook.com/docs/instagram-api/reference/ig-media)
[api/reference/ig-media](https://developers.facebook.com/docs/instagram-api/reference/ig-media).

1 of the plurality of users from descriptive information associated with unique user
 2 identifiers of the one or more of the plurality of users. The GUI is configured to
 3 display descriptive information associated with unique user identifiers of one or more
 4 of the plurality of users with a determined association with the second user. For
 5 instance, Instagram's systems present a second user with a GUI where he/she/they can
 6 tag other users by selecting descriptive information associated with the tagged user's
 7 user ID.⁹³ The GUI displays user and/or descriptive information associated with user
 8 IDs of the user(s) having a determined association with the second user.

9 135. Instagram's systems receive, via the communications network, an input
 10 initiated by the second user via the GUI, where the input indicates a selection of the
 11 first user from descriptive information associated with the unique user identifier of the
 12 first user. Instagram's systems determine the unique user identifier of the first user
 13 from the received input initiated by the second user indicating the selection of the first
 14 user. For instance, Instagram's systems receive a second Instagram user's input, via
 15 the GUI, indicating the tagging of a user from the user and/or account information
 16 associated with that user's user ID and determine from the tagging user's tagging
 17 action the unique user ID of the tagged user.⁹⁴

18 136. In response to receiving the input initiated by the second user indicating
 19 the selection of the first user and to determining the unique user identifier of the first
 20 user, Instagram's systems store in memory accessible to one or more of the plurality
 21 of computing devices an association between the unique user identifier of the first user
 22 and the unique digital media identifier corresponding to the digital media selection
 23 input by the second user. For instance, in response to the actions noted above,
 24

25 ⁹³ See, e.g., <https://www.facebook.com/help/instagram/627963287377328>.

26 ⁹⁴ See, e.g., [https://developers.facebook.com/docs/instagram-api/reference/ig-](https://developers.facebook.com/docs/instagram-api/reference/ig-user/tags)
 27 [user/tags; https://developers.facebook.com/docs/instagram-api/reference-](https://developers.facebook.com/docs/instagram-api/reference/user/media)
 28 [api/reference/user/media](https://developers.facebook.com/docs/instagram-api/reference/user/media).

Instagram's systems store in memory accessible to the computing device(s) an association between the tagged user's unique user ID and the unique media id corresponding to the tagging user's tagging action.⁹⁵ The same photo and digital media identifier appear in both the tagging user's profile and/or feed and the tagged user's profile and/or feed.⁹⁶

137. Instagram has infringed and is infringing, individually and/or jointly, either literally or under the doctrine of equivalents, at least claims 1, 24, 25, and 26 of the '291 Patent in violation of 35 U.S.C. §§ 271, *et seq.*, directly and/or indirectly, by making, using, offering for sale, selling, offering for lease, leasing in the United States, and/or importing into the United States without authority or license, the '291 Infringing Instagram Products.

138. Instagram has been, and currently is, an active inducer of infringement of one or more claims of the '291 Patent under 35 U.S.C. § 271(b). On information and belief, one or more of the '291 Infringing Instagram Products directly and/or indirectly infringe (by induced infringement) at least claims 1, 24, 25, and 26 of the '291 Patent, literally and/or under the doctrine of equivalents.

139. Instagram has been, and currently is, an active contributor to infringement of one or more claims of the '291 Patent under 35 U.S.C. § 271(c). Instagram's affirmative acts of providing and offering to provide, in this District and elsewhere in the United States, the '291 Infringing Instagram Products and causing the '291 Infringing Instagram Products to be used contribute to Instagram users' direct infringement of at least claims 1, 24, 25, and 26 of the '291 Patent. The accused

⁹⁵ See <https://developers.facebook.com/docs/instagram-api/reference/ig-user/tags>; <https://developers.facebook.com/docs/instagram-api/reference/ig-media>.

⁹⁶ See, e.g., <https://developers.facebook.com/docs/instagram-api/reference/ig-user/tags>; <https://developers.facebook.com/docs/instagram-api/reference/user/media>.

1 components within the '291 Infringing Instagram Products are material to the
2 inventions of the '291 Patent, are not staple articles or commodities of commerce,
3 have no substantial non-infringing uses, and are known by Instagram to be especially
4 made or especially adopted for use in infringement of the '291 Patent.

5 140. Instagram has knowledge of the '291 Patent and its infringement. The
6 application for the Angel Technologies Patents is listed as a Reference Cited on the
7 face of Facebook's photo tagging patents, U.S. Patent Nos. 7,945,653 and 9,646,027.
8 In addition, the application for the Angel Technologies Patents was specifically
9 discussed by Facebook with the Examiner of Facebook's photo tagging patent, U.S.
10 Patent No. 9,646,027, as prior art that discloses a "method and apparatus for obtaining
11 information relating to the existence of at least one object in an image."⁹⁷ This
12 knowledge was received by Facebook after it acquired Instagram.

13 141. In addition, member(s) of the team that developed Facebook Photos were
14 member(s) of Sacko.com and used Sacko.com's tagging technologies before the
15 launch of Facebook Photos. During this time, Sacko.com indicated that its technology
16 was "patent-pending."⁹⁸ On information and belief, Facebook was thereby aware of
17 Sacko.com and the inventions of the Angel Technologies Patents, and knew or should
18 have known of the '291 Patent.

19 142. Facebook was also made aware of the Angel Technologies Patents in the
20 summer of 2018.

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24 ⁹⁷ File History of U.S. Patent Application No. 13/097,521, Notice of Allowability
25 (Mar. 1, 2017) at 13.

26 ⁹⁸ See Sacko's Technology, Sacko.com Internet Archive, *available at*
27 [https://web.archive.org/web/20021209213931/http://www.sacko.com:80/us/technolog](https://web.archive.org/web/20021209213931/http://www.sacko.com:80/us/technology.asp)
28 [y.asp](https://web.archive.org/web/20021209213931/http://www.sacko.com:80/us/technology.asp).

1 143. These facts demonstrate Instagram's knowledge of the '291 Patent
2 including because Facebook and Instagram share employees and Facebook exerts
3 control over Instagram.

4 144. Instagram was founded in 2010 and acquired by Facebook in 2012. At
5 the time of acquisition, Instagram had just 13 employees.⁹⁹ Since the acquisition,
6 Facebook and Instagram have shared a revolving door of employees. For example,
7 Marne Levine served as Vice President of Global Public Policy at Facebook from
8 2010 to 2014, when she became Instagram's first Chief Operating Officer.¹⁰⁰ In 2018,
9 she moved back to Facebook as its Vice President of Global Partnerships, Business
10 and Corporate Development, and in June 2021, she was named Chief Business Officer
11 of Facebook.¹⁰¹ As another example, in or around 2018, Instagram's Vice President of
12 Product Kevin Weil joined Facebook's blockchain team.¹⁰²

13 145. Several employees also perform work for both companies
14 simultaneously. For example, Adam Mosseri began working at Facebook in 2008, and
15 most recently served as its Vice President of Product Management.¹⁰³ In 2018,
16 Mosseri transitioned to Head of Product at Instagram, and now serves as the Head of
17

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19 ⁹⁹ See, e.g., *Business Insider*, "Instagram is celebrating its 10th birthday. A decade
20 after launch, here's where its original 13 employees have ended up." (Oct. 6, 2020),
21 available at <https://www.businessinsider.com/instagram-first-13-employees-full-list-2020-4>.

22 ¹⁰⁰ Marne Levine, Wikipedia.org, available at https://en.wikipedia.org/wiki/Marne_Levine.
23

24 ¹⁰¹ *Id.*

25 ¹⁰² *The Verge*, "Facebook is creating a mysterious blockchain division" (May 8, 2018),
26 available at <https://www.theverge.com/2018/5/8/17332894/facebook-blockchain-group-employee-reshuffle-restructure-david-marcus-kevin-weil>.

27 ¹⁰³ Adam Mosseri LinkedIn, available at <https://www.linkedin.com/in/mosseri/>.
28

Instagram.¹⁰⁴ Mosseri indicates on his LinkedIn page that he currently works for both companies.¹⁰⁵ In addition, Mosseri is “part of [Mark] Zuckerberg’s inner circle of friends and lieutenants,”¹⁰⁶ and even though he now works at Instagram, he reports to Facebook’s Chief Product Officer Chris Cox.¹⁰⁷ As another example, in 2017 and 2018, Rachel Whetstone served as Vice President of Communications at Facebook and oversaw communications for Instagram, WhatsApp, and Facebook Messenger,¹⁰⁸ and Chris Cox, Zuckerberg’s “closest and most trusted confidant” and “longtime head of Facebook’s core product” similarly “oversees WhatsApp and Instagram.”¹⁰⁹ Finally, employee James Everingham describes himself as having been employed by Facebook from August 2015 to the present, first holding the title of Head of Engineering at Instagram where he worked in “senior engineering management at

¹⁰⁴ *Id.*

¹⁰⁵ *Id.*

¹⁰⁶ TechCrunch, “Meet Adam Mosseri, the new head of Instagram” (Oct. 1, 2018), available at https://techcrunch.com/2018/10/01/adam-mosseri-head-of-instagram/?guccounter=1&guce_referrer=aHR0cHM6Ly9lb3Jlbi53aWtpcGVkaWEub3JnLw&guce_referrer_sig=AQAAAJwIvG_cWaLWutit0vgEtcGhHChDSU8dPj9o2XnXIDDQaFb0kr1lVelavWXSiwC8uA2RuCrCe7bNYUOx7PMvQFwu_MWUMScfU7qt1-s-Giu-XWT6keIdQuVFEicXU0GAFuwFu0TygtoScylUr63uRuE9BXVAfVLt6FlnuJHWVD5k.

¹⁰⁷ *The Verge*, “Facebook names longtime executive Adam Mosseri as new head of Instagram” (Oct. 1, 2018), available at <https://www.theverge.com/2018/10/1/17902926/new-instagram-head-adam-mosseri-facebook-kevin-systrom-mike-krieger-departure>.

¹⁰⁸ *Wired*, “15 Months of Fresh Hell Inside Facebook” (Apr. 16, 2019), available at <https://www.wired.com/story/facebook-mark-zuckerberg-15-months-of-fresh-hell/>.

¹⁰⁹ *Id.*

1 Instagram/Facebook.”¹¹⁰ Everingham is now Vice President of Engineering at Novi,
2 Facebook’s digital wallet product.¹¹¹

3 146. In addition, although Facebook and Instagram began as separate
4 companies, Facebook now “exert[s] more control” over Instagram.¹¹² For example,
5 Facebook controls Instagram’s budget.¹¹³

6 147. This Complaint also serves as notice of the ’291 Patent and Instagram’s
7 infringement.

8 148. Instagram intentionally encourages and aids at least its users to directly
9 infringe the ’291 Patent.

10 149. Instagram provides the ’291 Infringing Instagram Products and
11 instructions to its users such that they will use the ’291 Infringing Instagram Products
12 in a directly infringing manner. Instagram markets the ’291 Infringing Instagram
13 Products to its users and provides instructions to its users on how to use the
14 functionality of the ’291 Patent on its website and elsewhere.¹¹⁴

15 150. Instagram users directly infringe by using the ’291 Infringing Instagram
16 Products in their intended manner. Instagram induces such infringement by providing
17 the ’291 Infringing Instagram Products and instructions to enable and facilitate
18 infringement. On information and belief, Instagram specifically intends that its actions
19 will result in infringement of the ’291 Patent or has taken deliberate actions to avoid
20 learning of infringement.

21
22 ¹¹⁰ James Everingham LinkedIn, *available at* <https://www.linkedin.com/in/jevering/>.

23 ¹¹¹ *Id.*

24 ¹¹² *Wired*, “15 Months of Fresh Hell Inside Facebook” (Apr. 16, 2019), *available at*
25 <https://www.wired.com/story/facebook-mark-zuckerberg-15-months-of-fresh-hell/>.

26 ¹¹³ *Id.*

27 ¹¹⁴ *See, e.g.,* <https://www.facebook.com/help/instagram/627963287377328>.
28

151. Additional allegations regarding Instagram's knowledge of the '291 Patent and willful infringement will likely have evidentiary support after a reasonable opportunity for discovery.

152. Instagram's infringement of the '291 Patent is willful and deliberate, entitling Angel Technologies to enhanced damages and attorneys' fees.

153. Instagram's infringement of the '291 Patent is exceptional and entitles Angel Technologies to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

154. Angel Technologies is entitled to recover from Instagram all damages that Angel Technologies has sustained as a result of Instagram's infringement of the '291 Patent, including without limitation not less than a reasonable royalty.

THIRD CLAIM FOR RELIEF

(Against Facebook)

INFRINGEMENT OF U.S. PATENT NO. 10,417,275

155. Plaintiff realleges and incorporates by reference the allegations of paragraphs 1 to 52 of this Complaint.

156. The '275 Patent is valid and enforceable under United States Patent Laws.

157. Angel Technologies owns, by assignment, all right, title, and interest in and to the '275 Patent, including the right to collect for past damages.

158. A copy of the '275 Patent is attached as Exhibit C.

'275 Patent Allegations Against Facebook

159. Facebook designed, implemented, and currently uses a variety of artificial intelligence tools, systems, applications, websites, and servers that include a facial recognition algorithm to identify the same tagged user in other media stored on the system.¹¹⁵ On information and belief after a reasonable investigation, these tools,

¹¹⁵ See, e.g., <https://www.facebook.com/help/122175507864081>.

1 systems, applications, websites, and/or servers (the “’275 Infringing Products”)
2 infringe the ’275 Patent.

3 160. Facebook’s systems (*e.g.*, Facebook’s data centers that serve its
4 users/products) include a plurality of computing devices connected via a
5 communications network. Facebook’s systems associate users of the computer system
6 with digital media accessible to the computer system.¹¹⁶ For instance, Facebook’s
7 systems use tags to associate users with accessible photos and videos.¹¹⁷

8 161. Facebook’s systems distinguish between users of the computer system
9 via one or more unique user identifiers stored in a computer-readable medium
10 accessible to the computer system. The users of the computer system include a named
11 user and an identifying user. The named user is different from the identifying user and
12 the named user has naming information associated with a unique user identifier of the
13 named user. For instance, Facebook’s systems distinguish between each user by
14 assigning each user a unique user ID stored in a computer-readable medium.¹¹⁸
15 Facebook maintains accounts for billions of users including both tagged and tagging
16 users, which are different from each other. The tagged user has account and/or profile
17 information associated with a unique user ID.¹¹⁹

18 162. In response to an input from the identifying user indicating a selection of
19 an image, Facebook’s systems determine a unique image identifier corresponding to
20 the image selected. Facebook’s systems receive, from the identifying user, an input
21

22 ¹¹⁶ See <https://www.sec.gov/Archives/edgar/data/1326801/000132680119000009/fb-12312018x10k.htm> at 22.

23 ¹¹⁷ See, *e.g.*, <https://www.facebook.com/help/267689476916031>.

24 ¹¹⁸ See, *e.g.*, <https://developers.facebook.com/docs/graph-api/reference/user/>;
25 <https://findmyfbid.in/blog/facebook-id-used/>.

26 ¹¹⁹ See <https://backlinko.com/facebook-users>;
27 <https://developers.facebook.com/docs/graph-api/reference/user>.
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1 indicating a selection of the named user from a list of other users of the computer
 2 system. The list of other users includes naming information previously provided by
 3 other users and includes one or more users in a contact list associated with the
 4 identifying user, the identifying user's contact list including the named user. For
 5 instance, Facebook allows users to select an image and can determine a corresponding
 6 photo ID from this selection.¹²⁰ Facebook's systems also receive a tag from the
 7 tagging user indicating a tagged user from the tagging user's friend list, which
 8 includes account and/or profile information previously provided by other users. The
 9 friend list also includes the tagged user.¹²¹

10 163. In response to receiving from the identifying user the input indicating the
 11 selection of the named user from the list of other users, Facebook's systems determine
 12 a unique user identifier of the named user. For instance, once the tagging user tags the
 13 tagged user, Facebook's systems determine the user ID of the tagged user.¹²²

14 164. Facebook's systems receive, from the identifying user, one or more
 15 inputs indicating a set of coordinates corresponding to a location of the named user
 16 within the image. For instance, Facebook receives, from the tagging user, input(s)
 17 indicating the x and y coordinates corresponding to the location of the tagged user in
 18 the image. Facebook stores this data accessible to other computing devices on its
 19 network.¹²³

20 165. Facebook's systems apply artificial intelligence algorithms to image data
 21 of other images accessible to the computer system to locate images matching
 22 characteristics of a subset of image data bound by the set of coordinates corresponding
 23

24 ¹²⁰ See <https://developers.facebook.com/docs/graph-api/reference/photo>.

25 ¹²¹ See, e.g., <https://www.facebook.com/help/570785306433644>.

26 ¹²² See, e.g., <https://developers.facebook.com/docs/graph-api/reference/user/>.

27 ¹²³ See <https://developers.facebook.com/docs/graph-api/reference/v11.0/photo/tags>.
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1 to the location of the named user within the image. The set of coordinates
 2 corresponding to the location of the named user within the image is associated with
 3 the unique user identifier of the named user and the unique image identifier. For
 4 instance, Facebook uses facial recognition algorithms to locate other photos and
 5 videos that contain the tagged user. The algorithms do so by comparing templates of
 6 the tagged user from tagged photos to other Facebook photos and videos in which the
 7 tagged user is not tagged. The x and y coordinates of the tag are associated with the
 8 tagged user's user ID and the photo ID.¹²⁴

9 166. Facebook has infringed and is infringing, individually and/or jointly,
 10 either literally or under the doctrine of equivalents, at least claim 1 of the '275 Patent
 11 in violation of 35 U.S.C. §§ 271, *et seq.*, directly and/or indirectly, by making, using,
 12 offering for sale, selling, offering for lease, leasing in the United States, and/or
 13 importing into the United States without authority or license, the '275 Infringing
 14 Products.

15 167. Facebook has been, and currently is, an active inducer of infringement of
 16 one or more claims of the '275 Patent under 35 U.S.C. § 271(b). On information and
 17 belief, one or more of the '275 Infringing Products directly and/or indirectly infringe
 18 (by induced infringement) at least claim 1 of the '275 Patent, literally and/or under the
 19 doctrine of equivalents.

20 168. Facebook has been, and currently is, an active contributor to infringement
 21 of one or more claims of the '275 Patent under 35 U.S.C. § 271(c). Facebook's
 22 affirmative acts of providing and offering to provide, in this District and elsewhere in
 23 the United States, the '275 Infringing Products and causing the '275 Infringing
 24 Products to be used contribute to Facebook users' direct infringement of at least claim
 25 1 of the '275 Patent. The accused components within the '275 Infringing Products are

26
 27 ¹²⁴ See <https://www.facebook.com/help/122175507864081>;
 28 <https://developers.facebook.com/docs/graph-api/reference/v11.0/photo/tags>.

1 material to the inventions of the '275 Patent, are not staple articles or commodities of
 2 commerce, have no substantial non-infringing uses, and are known by Facebook to be
 3 especially made or especially adopted for use in infringement of the '275 Patent.

4 169. Facebook has knowledge of the '275 Patent and its infringement. The
 5 application for the Angel Technologies Patents is listed as a Reference Cited on the
 6 face of Facebook's photo tagging patents, U.S. Patent Nos. 7,945,653 and 9,646,027.
 7 In addition, the application for the Angel Technologies Patents was specifically
 8 discussed by Facebook with the Examiner of Facebook's photo tagging patent, U.S.
 9 Patent No. 9,646,027, as prior art that discloses a "method and apparatus for obtaining
 10 information relating to the existence of at least one object in an image."¹²⁵

11 170. In addition, member(s) of the team that developed Facebook Photos were
 12 member(s) of Sacko.com and used Sacko.com's tagging technologies before the
 13 launch of Facebook Photos. During this time, Sacko.com indicated that its technology
 14 was "patent-pending."¹²⁶ On information and belief, Facebook was thereby aware of
 15 Sacko.com and the inventions of the Angel Technologies Patents, and knew or should
 16 have known of the '275 Patent.

17 171. Facebook was also made aware of the Angel Technologies Patents in the
 18 summer of 2018.

19 172. This Complaint also serves as notice of the '275 Patent and Facebook's
 20 infringement.

21 173. Facebook intentionally encourages and aids at least its users to directly
 22 infringe the '275 Patent.

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 24 ¹²⁵ File History of U.S. Patent Application No. 13/097,521, Notice of Allowability
 25 (Mar. 1, 2017) at 13.

26 ¹²⁶ See Sacko's Technology, Sacko.com Internet Archive, *available at*
 27 [https://web.archive.org/web/20021209213931/http://www.sacko.com:80/us/technolog](https://web.archive.org/web/20021209213931/http://www.sacko.com:80/us/technology.asp)
 28 [y.asp](https://web.archive.org/web/20021209213931/http://www.sacko.com:80/us/technology.asp).

1 174. Facebook provides the '275 Infringing Products and instructions to its
2 users such that they will use the '275 Infringing Products in a directly infringing
3 manner. Facebook markets the '275 Infringing Products to its users and provides
4 instructions to its users on how to use the functionality of the '275 Patent on its
5 website and elsewhere.¹²⁷

6 175. Facebook users directly infringe by using the '275 Infringing Products in
7 their intended manner. Facebook induces such infringement by providing the '275
8 Infringing Products and instructions to enable and facilitate infringement. On
9 information and belief, Facebook specifically intends that its actions will result in
10 infringement of the '275 Patent or has taken deliberate actions to avoid learning of
11 infringement.

12 176. Additional allegations regarding Facebook's knowledge of the '275
13 Patent and willful infringement will likely have evidentiary support after a reasonable
14 opportunity for discovery.

15 177. Facebook's infringement of the '275 Patent is willful and deliberate,
16 entitling Angel Technologies to enhanced damages and attorneys' fees.

17 178. Facebook's infringement of the '275 Patent is exceptional and entitles
18 Angel Technologies to attorneys' fees and costs incurred in prosecuting this action
19 under 35 U.S.C. § 285.

20 179. Angel Technologies is entitled to recover from Facebook all damages
21 that Angel Technologies has sustained as a result of Facebook's infringement of the
22 '275 Patent, including without limitation not less than a reasonable royalty.

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27 ¹²⁷ See, e.g., <https://www.facebook.com/help/122175507864081>.

FOURTH CLAIM FOR RELIEF**(Against Facebook and Instagram)****INFRINGEMENT OF U.S. PATENT NO. 10,628,480**

180. Plaintiff realleges and incorporates by reference the allegations of paragraphs 1 to 52 of this Complaint.

181. The '480 Patent is valid and enforceable under United States Patent Laws.

182. Angel Technologies owns, by assignment, all right, title, and interest in and to the '480 Patent, including the right to collect for past damages.

183. A copy of the '480 Patent is attached as Exhibit D.

'480 Patent Allegations Against Facebook

184. Facebook designed, implemented, and currently uses a variety of tools, systems, applications, websites, and servers that enable the addition of new friends to a user's friend list after viewing a tagged photo. On information and belief after a reasonable investigation, these tools, systems, applications, websites, and/or servers (the "'480 Infringing Facebook Products") infringe the '480 Patent.

185. Facebook's systems include one or more computing devices connected via a communications network.¹²⁸

186. Facebook's systems, by one or more computing devices, store in memory accessible to the one or more computing devices, descriptive naming information about a first user of the communications network. The descriptive naming information is determined from a naming input received from a computing device of the first user. For instance, Facebook's systems store profile and/or account information about a first

¹²⁸ See <https://www.sec.gov/Archives/edgar/data/1326801/000132680119000009/fb-12312018x10k.htm> at 22.

1 user in memory accessible to one or more computing devices. This information is
 2 determined from input received from the first user's computer.¹²⁹

3 187. Facebook's systems, by the one or more computing devices, store in
 4 memory accessible to the one or more computing devices, information determined
 5 from an associating input received from a computing device of a user of the
 6 communications network. The associating input indicates an association between the
 7 first user and an item of digital media and is received separately from the naming
 8 input. For instance, Facebook's systems store, in memory accessible to the computing
 9 device(s), information determined from a tag input received from a Facebook user.
 10 The tag input indicates an association between the first user and a photo or video. The
 11 tag input is received from the user's computer separately from the profile and/or
 12 account information.¹³⁰

13 188. Facebook's systems, by the one or more computing devices, transmit
 14 display data for presentation in a GUI on a computing device of a viewing user. The
 15 digital display data includes a representation of the association between the first user
 16 and the item of digital media, and includes (i) information determined from the
 17 associating input, and (ii) descriptive naming information determined from the naming
 18 input. The descriptive naming information is information other than information
 19 received from the associating input. For instance, Facebook's systems send display
 20 data for presentation to users in a GUI on a viewer's computing device. The data
 21 includes a representation of the tag of a first user and a photo or video.¹³¹ This
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24 ¹²⁹ See, e.g., <https://developers.facebook.com/docs/graph-api/reference/user/>.

25 ¹³⁰ See <https://developers.facebook.com/docs/graph-api/reference/photo/>;
 26 <https://developers.facebook.com/blog/post/498/>;
 27 <https://developers.facebook.com/docs/graph-api/reference/user/>.

28 ¹³¹ See, e.g., <https://www.facebook.com/help/124970597582337>.

1 representation includes (i) information determined from the tag, and (ii) information
2 determined from the profile and/or account information, which is not the tag.¹³²

3 189. Facebook's systems, by the one or more computing devices, receive an
4 input initiated by the viewing user indicating a request to add the association between
5 the first user and the viewing user. Responsive to receiving the input initiated by the
6 viewing user, Facebook's systems store the association between the first user and the
7 viewing user in memory accessible to the one or more computing devices. For
8 instance, Facebook receives inputs from viewing users when they click on tags listed
9 within a photo/video and make a "friend request" of the tagged user. Facebook stores
10 this association between the two users in memory accessible to the computing
11 device(s).¹³³

12 190. Facebook has infringed and is infringing, individually and/or jointly,
13 either literally or under the doctrine of equivalents, at least claims 1, 2, 3, and 30 of
14 the '480 Patent in violation of 35 U.S.C. §§ 271, *et seq.*, directly and/or indirectly, by
15 making, using, offering for sale, selling, offering for lease, leasing in the United
16 States, and/or importing into the United States without authority or license, the '480
17 Infringing Facebook Products.

18 191. Facebook has been, and currently is, an active inducer of infringement of
19 one or more claims of the '480 Patent under 35 U.S.C. § 271(b). On information and
20 belief, one or more of the '480 Infringing Facebook Products directly and/or indirectly
21 infringe (by induced infringement) at least claims 1, 2, 3, and 30 of the '480 Patent,
22 literally and/or under the doctrine of equivalents.

23 192. Facebook has been, and currently is, an active contributor to infringement
24 of one or more claims of the '480 Patent under 35 U.S.C. § 271(c). Facebook's
25

26 ¹³² See, e.g., *id.*

27 ¹³³ See <https://developers.facebook.com/docs/graph-api/reference/v12.0/user/friends>.
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1 affirmative acts of providing and offering to provide, in this District and elsewhere in
 2 the United States, the '480 Infringing Facebook Products and causing the '480
 3 Infringing Facebook Products to be used contribute to Facebook users' direct
 4 infringement of at least claims 1, 2, 3, and 30 of the '480 Patent. The accused
 5 components within the '480 Infringing Facebook Products are material to the
 6 inventions of the '480 Patent, are not staple articles or commodities of commerce,
 7 have no substantial non-infringing uses, and are known by Facebook to be especially
 8 made or especially adopted for use in infringement of the '480 Patent.

9 193. Facebook has knowledge of the '480 Patent and its infringement. The
 10 application for the Angel Technologies Patents is listed as a Reference Cited on the
 11 face of Facebook's photo tagging patents, U.S. Patent Nos. 7,945,653 and 9,646,027.
 12 In addition, the application for the Angel Technologies Patents was specifically
 13 discussed by Facebook with the Examiner of Facebook's photo tagging patent, U.S.
 14 Patent No. 9,646,027, as prior art that discloses a "method and apparatus for obtaining
 15 information relating to the existence of at least one object in an image."¹³⁴

16 194. In addition, member(s) of the team that developed Facebook Photos were
 17 member(s) of Sacko.com and used Sacko.com's tagging technologies before the
 18 launch of Facebook Photos. During this time, Sacko.com indicated that its technology
 19 was "patent-pending."¹³⁵ On information and belief, Facebook was thereby aware of
 20 Sacko.com and the inventions of the Angel Technologies Patents, and knew or should
 21 have known of the '480 Patent.

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 24 ¹³⁴ File History of U.S. Patent Application No. 13/097,521, Notice of Allowability
 25 (Mar. 1, 2017) at 13.

26 ¹³⁵ See Sacko's Technology, Sacko.com Internet Archive, *available at*
 27 [https://web.archive.org/web/20021209213931/http://www.sacko.com:80/us/technolog](https://web.archive.org/web/20021209213931/http://www.sacko.com:80/us/technology.asp)
 28 [y.asp](https://web.archive.org/web/20021209213931/http://www.sacko.com:80/us/technology.asp).

1 195. Facebook was also made aware of the Angel Technologies in the summer
2 of 2018.

3 196. This Complaint also serves as notice of the '480 Patent and Facebook's
4 infringement.

5 197. Facebook intentionally encourages and aids at least its users to directly
6 infringe the '480 Patent.

7 198. Facebook provides the '480 Infringing Facebook Products and
8 instructions to its users such that they will use the '480 Infringing Facebook Products
9 in a directly infringing manner. Facebook markets the '480 Infringing Facebook
10 Products to its users and provides instructions to its users on how to use the
11 functionality of the '480 Patent on its website and elsewhere.¹³⁶

12 199. Facebook users directly infringe by using the '480 Infringing Facebook
13 Products in their intended manner. Facebook induces such infringement by providing
14 the '480 Infringing Facebook Products and instructions to enable and facilitate
15 infringement. On information and belief, Facebook specifically intends that its actions
16 will result in infringement of the '480 Patent or has taken deliberate actions to avoid
17 learning of infringement.

18 200. Additional allegations regarding Facebook's knowledge of the '480
19 Patent and willful infringement will likely have evidentiary support after a reasonable
20 opportunity for discovery.

21 201. Facebook's infringement of the '480 Patent is willful and deliberate,
22 entitling Angel Technologies to enhanced damages and attorneys' fees.

23 202. Facebook's infringement of the '480 Patent is exceptional and entitles
24 Angel Technologies to attorneys' fees and costs incurred in prosecuting this action
25 under 35 U.S.C. § 285.

26
27 ¹³⁶ See, e.g., <https://www.facebook.com/help/267689476916031>.
28

203. Angel Technologies is entitled to recover from Facebook all damages that Angel Technologies has sustained as a result of Facebook's infringement of the '480 Patent, including without limitation not less than a reasonable royalty.

'480 Patent Allegations Against Instagram

204. Instagram designed, implemented, and currently uses a variety of tools, systems, applications, websites, and servers that enable the addition of Instagram users to a user's follower/following list after viewing a tagged photo. On information and belief after a reasonable investigation, these tools, systems, applications, websites, and/or servers (the "'480 Infringing Instagram Products") infringe the '480 Patent.

205. Instagram's systems include one or more computing devices connected via a communications network.¹³⁷

206. Instagram's systems, by one or more computing devices, store in memory accessible to the one or more computing devices, descriptive naming information about a first user of the communications network. The descriptive naming information is determined from a naming input received from a computing device of the first user. For instance, Instagram's systems store profile and/or account information about a first user in memory accessible to one or more computing devices. This information is derived from input received from the first user's computer.¹³⁸

207. Instagram's systems, by the one or more computing devices, store in memory accessible to the one or more computing devices, information determined from an associating input received from a computing device of a user of the communications network. The associating input indicates an association between the

¹³⁷ See <https://www.sec.gov/Archives/edgar/data/1326801/000132680119000009/fb-12312018x10k.htm> at 22; <https://instagram-engineering.com/instagrati-on-pt-2-scaling-our-infra-structure-to-multiple-data-centers-5745cbad7834>.

¹³⁸ See, e.g., <https://developers.facebook.com/docs/instagram-api/reference/ig-user>; <https://developers.facebook.com/docs/instagram-basic-display-api/reference/user>.

1 first user and an item of digital media and is received separately from the naming
 2 input. For instance, Instagram's systems store in memory accessible to the computing
 3 device(s) information determined from a tag input received from an Instagram user.
 4 The tag input indicates an association between the first user and a photo or video. The
 5 tagging input is received from the user's computer separately from the profile and/or
 6 account information.¹³⁹

7 208. Instagram's systems, by the one or more computing devices, transmit
 8 display data for presentation in a GUI on a computing device of a viewing user. The
 9 digital display data includes a representation of the association between the first user
 10 and the item of digital media, and includes (i) information determined from the
 11 associating input, and (ii) descriptive naming information determined from the naming
 12 input. The descriptive naming information is information other than information
 13 received from the associating input. For instance, Instagram's systems send display
 14 data for presentation to users in a GUI on a viewer's computing device. The data
 15 includes a representation of the tag of a first user and a photo or video.¹⁴⁰ This
 16 representation includes (i) information determined from the tag, and (ii) information
 17 determined from the profile and/or account information, which is not the tag.¹⁴¹

18 209. Instagram's systems, by the one or more computing devices, receive an
 19 input initiated by the viewing user indicating a request to add the association between
 20 the first user and the viewing user. Responsive to receiving the input initiated by the
 21 viewing user, Instagram's systems store the association between the first user and the
 22 viewing user in memory accessible to the one or more computing devices. For

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 24 ¹³⁹ See <https://developers.facebook.com/docs/instagram-api/reference/ig-user/tags>;
 25 <https://developers.facebook.com/docs/instagram-api/reference/ig-media>;
 26 <https://developers.facebook.com/docs/instagram-basic-display-api/reference/media>.

27 ¹⁴⁰ See, e.g., <https://www.facebook.com/help/instagram/627963287377328>.

28 ¹⁴¹ See, e.g., *id.*

1 instance, Instagram's systems receive inputs from viewing users when they click on
 2 tags listed within a photo and make a "follow" request of the tagged user. Instagram
 3 stores the association in memory accessible to the computing device(s).¹⁴²

4 210. Instagram has infringed and is infringing, individually and/or jointly,
 5 either literally or under the doctrine of equivalents, at least claims 1, 2, 3, and 30 of
 6 the '480 Patent in violation of 35 U.S.C. §§ 271, *et seq.*, directly and/or indirectly, by
 7 making, using, offering for sale, selling, offering for lease, leasing in the United
 8 States, and/or importing into the United States without authority or license, the '480
 9 Infringing Instagram Products.

10 211. Instagram has been, and currently is, an active inducer of infringement of
 11 one or more claims of the '480 Patent under 35 U.S.C. § 271(b). On information and
 12 belief, one or more of the '480 Infringing Instagram Products directly and/or
 13 indirectly infringe (by induced infringement) at least claims 1, 2, 3, and 30 of the '480
 14 Patent, literally and/or under the doctrine of equivalents.

15 212. Instagram has been, and currently is, an active contributor to
 16 infringement of one or more claims of the '480 Patent under 35 U.S.C. § 271(c).
 17 Instagram's affirmative acts of providing and offering to provide, in this District and
 18 elsewhere in the United States, the '480 Infringing Instagram Products and causing the
 19 '480 Infringing Instagram Products to be used contribute to Instagram users' direct
 20 infringement of at least claims 1, 2, 3, and 30 of the '480 Patent. The accused
 21 components within the '480 Infringing Instagram Products are material to the
 22 inventions of the '480 Patent, are not staple articles or commodities of commerce,
 23 have no substantial non-infringing uses, and are known by Instagram to be especially
 24 made or especially adopted for use in infringement of the '480 Patent.

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 26 ¹⁴² See <https://developers.facebook.com/docs/instagram-api/reference/ig-user/tags>;
 27 [https://developers.facebook.com/docs/instagram-basic-display-](https://developers.facebook.com/docs/instagram-basic-display-api/reference/user/media)
 28 [api/reference/user/media](https://developers.facebook.com/docs/instagram-api/reference/user/media).

1 213. Instagram has knowledge of the '480 Patent and its infringement. The
 2 application for the Angel Technologies Patents is listed as a Reference Cited on the
 3 face of Facebook's photo tagging patents, U.S. Patent Nos. 7,945,653 and 9,646,027.
 4 In addition, the application for the Angel Technologies Patents was specifically
 5 discussed by Facebook with the Examiner of Facebook's photo tagging patent, U.S.
 6 Patent No. 9,646,027, as prior art that discloses a "method and apparatus for obtaining
 7 information relating to the existence of at least one object in an image."¹⁴³ This
 8 knowledge was received by Facebook after it acquired Instagram.

9 214. In addition, member(s) of the team that developed Facebook Photos were
 10 member(s) of Sacko.com and used Sacko.com's tagging technologies before the
 11 launch of Facebook Photos. During this time, Sacko.com indicated that its technology
 12 was "patent-pending."¹⁴⁴ On information and belief, Facebook was thereby aware of
 13 Sacko.com and the inventions of the Angel Technologies Patents, and knew or should
 14 have known of the '480 Patent.

15 215. Facebook was also made aware of the Angel Technologies Patents in the
 16 summer of 2018.

17 216. These facts demonstrate Instagram's knowledge of the '480 Patent
 18 including because Facebook and Instagram share employees and Facebook exerts
 19 control over Instagram.
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24 ¹⁴³ File History of U.S. Patent Application No. 13/097,521, Notice of Allowability
 25 (Mar. 1, 2017) at 13.

26 ¹⁴⁴ See Sacko's Technology, Sacko.com Internet Archive, *available at*
 27 [https://web.archive.org/web/20021209213931/http://www.sacko.com:80/us/technolog](https://web.archive.org/web/20021209213931/http://www.sacko.com:80/us/technology.asp)
 28 [y.asp](https://web.archive.org/web/20021209213931/http://www.sacko.com:80/us/technology.asp).

217. Instagram was founded in 2010 and acquired by Facebook in 2012. At the time of acquisition, Instagram had just 13 employees.¹⁴⁵ Since the acquisition, Facebook and Instagram have shared a revolving door of employees. For example, Marne Levine served as Vice President of Global Public Policy at Facebook from 2010 to 2014, when she became Instagram's first Chief Operating Officer.¹⁴⁶ In 2018, she moved back to Facebook as its Vice President of Global Partnerships, Business and Corporate Development, and in June 2021, she was named Chief Business Officer of Facebook.¹⁴⁷ As another example, in or around 2018, Instagram's Vice President of Product Kevin Weil joined Facebook's blockchain team.¹⁴⁸

218. Several employees also perform work for both companies simultaneously. For example, Adam Mosseri began working at Facebook in 2008, and most recently served as its Vice President of Product Management.¹⁴⁹ In 2018, Mosseri transitioned to Head of Product at Instagram, and now serves as the Head of Instagram.¹⁵⁰ Mosseri indicates on his LinkedIn page that he currently works for both companies.¹⁵¹ In addition, Mosseri is "part of [Mark] Zuckerberg's inner circle of

¹⁴⁵ See, e.g., *Business Insider*, "Instagram is celebrating its 10th birthday. A decade after launch, here's where its original 13 employees have ended up." (Oct. 6, 2020), available at <https://www.businessinsider.com/instagram-first-13-employees-full-list-2020-4>.

¹⁴⁶ Marne Levine, Wikipedia.org, available at https://en.wikipedia.org/wiki/Marne_Levine.

¹⁴⁷ *Id.*

¹⁴⁸ *The Verge*, "Facebook is creating a mysterious blockchain division" (May 8, 2018), available at <https://www.theverge.com/2018/5/8/17332894/facebook-blockchain-group-employee-reshuffle-restructure-david-marcus-kevin-weil>.

¹⁴⁹ Adam Mosseri LinkedIn, available at <https://www.linkedin.com/in/mosseri/>.

¹⁵⁰ *Id.*

¹⁵¹ *Id.*

1 friends and lieutenants,”¹⁵² and even though he now works at Instagram, he reports to
 2 Facebook’s Chief Product Officer Chris Cox.¹⁵³ As another example, in 2017 and
 3 2018, Rachel Whetstone served as Vice President of Communications at Facebook
 4 and oversaw communications for Instagram, WhatsApp, and Facebook Messenger,¹⁵⁴
 5 and Chris Cox, Zuckerberg’s “closest and most trusted confidant” and “longtime head
 6 of Facebook’s core product” similarly “oversees WhatsApp and Instagram.”¹⁵⁵
 7 Finally, employee James Everingham describes himself as having been employed by
 8 Facebook from August 2015 to the present, first holding the title of Head of
 9 Engineering at Instagram where he worked in “senior engineering management at
 10 Instagram/Facebook.”¹⁵⁶ Everingham is now Vice President of Engineering at Novi,
 11 Facebook’s digital wallet product.¹⁵⁷

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 13
 14 ¹⁵² TechCrunch, “Meet Adam Mosseri, the new head of Instagram” (Oct. 1, 2018),
 15 available at [https://techcrunch.com/2018/10/01/adam-mosseri-head-of-](https://techcrunch.com/2018/10/01/adam-mosseri-head-of-instagram/?guccounter=1&guce_referrer=aHR0cHM6Ly9lb3JkaWUub3JnLw&guce_referrer_sig=AQAAAJwIvG_cWaLWutit0vgEtcGhHChDSU8dPj9o2XnXIDDQaFb0kr1lVelavWXSiwC8uA2RuCrCe7bNYUOx7PMvQFwu_MWUMScfU7qt1-s-Giu-XWT6keIdQuVFEicXU0GAFuwFu0TygtoScylUr63uRuE9BXVAfVLt6FlnuJHWVD5k)
 16 [instagram/?guccounter=1&guce_referrer=aHR0cHM6Ly9lb3JkaWUub3JnLw&guce_referrer_sig=AQAAAJwIvG_cWaLWutit0vgEtcGhHChDSU8dPj9o2XnX](https://techcrunch.com/2018/10/01/adam-mosseri-head-of-instagram/?guccounter=1&guce_referrer=aHR0cHM6Ly9lb3JkaWUub3JnLw&guce_referrer_sig=AQAAAJwIvG_cWaLWutit0vgEtcGhHChDSU8dPj9o2XnXIDDQaFb0kr1lVelavWXSiwC8uA2RuCrCe7bNYUOx7PMvQFwu_MWUMScfU7qt1-s-Giu-XWT6keIdQuVFEicXU0GAFuwFu0TygtoScylUr63uRuE9BXVAfVLt6FlnuJHWVD5k)
 17 [IDDQaFb0kr1lVelavWXSiwC8uA2RuCrCe7bNYUOx7PMvQFwu_MWUMScfU7qt](https://techcrunch.com/2018/10/01/adam-mosseri-head-of-instagram/?guccounter=1&guce_referrer=aHR0cHM6Ly9lb3JkaWUub3JnLw&guce_referrer_sig=AQAAAJwIvG_cWaLWutit0vgEtcGhHChDSU8dPj9o2XnXIDDQaFb0kr1lVelavWXSiwC8uA2RuCrCe7bNYUOx7PMvQFwu_MWUMScfU7qt1-s-Giu-XWT6keIdQuVFEicXU0GAFuwFu0TygtoScylUr63uRuE9BXVAfVLt6FlnuJHWVD5k)
 18 [1-s-Giu-](https://techcrunch.com/2018/10/01/adam-mosseri-head-of-instagram/?guccounter=1&guce_referrer=aHR0cHM6Ly9lb3JkaWUub3JnLw&guce_referrer_sig=AQAAAJwIvG_cWaLWutit0vgEtcGhHChDSU8dPj9o2XnXIDDQaFb0kr1lVelavWXSiwC8uA2RuCrCe7bNYUOx7PMvQFwu_MWUMScfU7qt1-s-Giu-XWT6keIdQuVFEicXU0GAFuwFu0TygtoScylUr63uRuE9BXVAfVLt6FlnuJHWVD5k)
 19 [XWT6keIdQuVFEicXU0GAFuwFu0TygtoScylUr63uRuE9BXVAfVLt6FlnuJHWV](https://techcrunch.com/2018/10/01/adam-mosseri-head-of-instagram/?guccounter=1&guce_referrer=aHR0cHM6Ly9lb3JkaWUub3JnLw&guce_referrer_sig=AQAAAJwIvG_cWaLWutit0vgEtcGhHChDSU8dPj9o2XnXIDDQaFb0kr1lVelavWXSiwC8uA2RuCrCe7bNYUOx7PMvQFwu_MWUMScfU7qt1-s-Giu-XWT6keIdQuVFEicXU0GAFuwFu0TygtoScylUr63uRuE9BXVAfVLt6FlnuJHWVD5k)
 20 [D5k](https://techcrunch.com/2018/10/01/adam-mosseri-head-of-instagram/?guccounter=1&guce_referrer=aHR0cHM6Ly9lb3JkaWUub3JnLw&guce_referrer_sig=AQAAAJwIvG_cWaLWutit0vgEtcGhHChDSU8dPj9o2XnXIDDQaFb0kr1lVelavWXSiwC8uA2RuCrCe7bNYUOx7PMvQFwu_MWUMScfU7qt1-s-Giu-XWT6keIdQuVFEicXU0GAFuwFu0TygtoScylUr63uRuE9BXVAfVLt6FlnuJHWVD5k).

21 ¹⁵³ *The Verge*, “Facebook names longtime executive Adam Mosseri as new head of
 22 Instagram” (Oct. 1, 2018), available at [https://www.theverge.com/2018/10/1/17902926/new-instagram-head-adam-mosseri-](https://www.theverge.com/2018/10/1/17902926/new-instagram-head-adam-mosseri-facebook-kevin-systrom-mike-krieger-departure)
 23 [facebook-kevin-systrom-mike-krieger-departure](https://www.theverge.com/2018/10/1/17902926/new-instagram-head-adam-mosseri-facebook-kevin-systrom-mike-krieger-departure).

24 ¹⁵⁴ *Wired*, “15 Months of Fresh Hell Inside Facebook” (Apr. 16, 2019), available at <https://www.wired.com/story/facebook-mark-zuckerberg-15-months-of-fresh-hell/>.

25 ¹⁵⁵ *Id.*

26 ¹⁵⁶ James Everingham LinkedIn, available at <https://www.linkedin.com/in/jevering/>.

27 ¹⁵⁷ *Id.*

1 219. In addition, although Facebook and Instagram began as separate
2 companies, Facebook now “exert[s] more control” over Instagram.¹⁵⁸ For example,
3 Facebook controls Instagram’s budget.¹⁵⁹

4 220. This Complaint also serves as notice of the ’480 Patent and Instagram’s
5 infringement.

6 221. Instagram intentionally encourages and aids at least its users to directly
7 infringe the ’480 Patent.

8 222. Instagram provides the ’480 Infringing Instagram Products and
9 instructions to its users such that they will use the ’480 Infringing Instagram Products
10 in a directly infringing manner. Instagram markets the ’480 Infringing Instagram
11 Products to its users and provides instructions to its users on how to use the
12 functionality of the ’480 Patent on its website and elsewhere.¹⁶⁰

13 223. Instagram users directly infringe by using the ’480 Infringing Instagram
14 Products in their intended manner. Instagram induces such infringement by providing
15 the ’480 Infringing Instagram Products and instructions to enable and facilitate
16 infringement. On information and belief, Instagram specifically intends that its actions
17 will result in infringement of the ’480 Patent or has taken deliberate actions to avoid
18 learning of infringement.

19 224. Additional allegations regarding Instagram’s knowledge of the ’480
20 Patent and willful infringement will likely have evidentiary support after a reasonable
21 opportunity for discovery.

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25 ¹⁵⁸ *Wired*, “15 Months of Fresh Hell Inside Facebook” (Apr. 16, 2019), *available at*
<https://www.wired.com/story/facebook-mark-zuckerberg-15-months-of-fresh-hell/>.

26 ¹⁵⁹ *Id.*

27 ¹⁶⁰ *See* <https://www.facebook.com/help/instagram/627963287377328>.
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1 225. Instagram's infringement of the '480 Patent is willful and deliberate,
2 entitling Angel Technologies to enhanced damages and attorneys' fees.

3 226. Instagram's infringement of the '480 Patent is exceptional and entitles
4 Angel Technologies to attorneys' fees and costs incurred in prosecuting this action
5 under 35 U.S.C. § 285.

6 227. Angel Technologies is entitled to recover from Instagram all damages
7 that Angel Technologies has sustained as a result of Instagram's infringement of the
8 '480 Patent, including without limitation not less than a reasonable royalty.

9 **PRAYER FOR RELIEF**

10 WHEREFORE, Angel Technologies prays for a judgment in its favor and
11 against Facebook and Instagram and respectfully requests the following relief:

12 1. A judgment declaring that Facebook and Instagram have infringed one or
13 more claims of each of the Angel Technologies Patents pursuant to 35 U.S.C. §§
14 271(a), 271(b), and/or 271(c);

15 2. A judgment requiring Facebook and Instagram to make an accounting of
16 damages resulting from their infringement of the Angel Technologies Patents;

17 3. A judgment awarding Angel Technologies its damages resulting from
18 Facebook's and Instagram's infringement of the Angel Technologies Patents, and
19 increasing such damages pursuant to 35 U.S.C. § 284 because of the willful and
20 deliberate nature of Facebook's and Instagram's conduct;

21 4. A judgment requiring Facebook and Instagram to pay Angel
22 Technologies' costs, expenses, and pre-judgment and post-judgment interest for
23 Facebook's and Instagram's infringement of each of the Angel Technologies Patents;

24 5. A judgment finding that this is an exceptional case and awarding Angel
25 Technologies attorneys' fees pursuant to 35 U.S.C. § 285; and

26 6. Such other relief as the Court deems just and proper.
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1 DATED: October 26, 2021

Respectfully submitted,

2 MCKOOL SMITH HENNIGAN, P.C.

3 By /s/ Alan P. Block

4 Alan P. Block

5 Attorneys for Plaintiff

6 Angel Technologies Group LLC

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McKool Smith, P.C.

DEMAND FOR JURY TRIAL

In accordance with Rule 38 of the Federal Rules of Civil Procedure and Local Rule 38-1, Plaintiff respectfully demands a jury trial of all issues triable to a jury.

DATED: October 26, 2021

Respectfully submitted,

MCKOOL SMITH HENNIGAN, P.C.

By /s/ Alan P. Block

Alan P. Block

Attorneys for Plaintiff

Angel Technologies Group LLC

MCKOOL SMITH, P.C.