IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

EYESMATCH LTD., AND MEMOMI LABS	Civil Action No.
INC.,	
Plaintiffs,	JURY TRIAL DEMANDED
v.	
FACEBOOK, INC., INSTAGRAM, LLC, AND WHATSAPP INC.	
Defendants.	

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiffs EyesMatch Ltd. ("EyesMatch") and Memomi Labs Inc. ("Memomi") (collectively "Plaintiffs"), by and through their attorneys, file this Complaint for Patent Infringement against Defendant Facebook, Inc. ("Facebook"), Defendant Instagram, LLC ("Instagram"), a wholly-owned subsidiary of Facebook, and Defendant WhatsApp Inc. ("WhatsApp"), a wholly-owned subsidiary of Facebook (collectively "Defendants"), and allege as follows:

NATURE OF THE ACTION

- 1. This is a patent infringement action to end Defendants' unauthorized infringing manufacture, use, sale, and/or offer to sell in the United States; importation into the United States without authority; and performance in the United States without authority every step of Plaintiffs' patented inventions by using products, services, devices, systems, and/or components of systems that embody Plaintiffs' patented inventions.
- 2. Plaintiffs own all substantial rights and interest in the Asserted Patents described below, including the exclusive right to sue Defendants for infringement and recover damages.

3. In violation of Plaintiffs' rights in the Asserted Patents, Defendants make, use, sell, and/or offer to sell in the United States without authority; import into the United States without authority; and perform in the United States without authority every step of the patented inventions by using products, services, devices, systems, and/or components of systems that embody the patented inventions. Plaintiffs seek, *inter alia*, monetary damages and prejudgment interest for Defendants' infringement of the Asserted Patents.

THE PARTIES

- 4. Plaintiff EyesMatch is incorporated under the laws of the British Virgin Islands with its principal place of business in 19 Waterfront Drive, P.O. Box 3540, Road Town, Tortola, British Virgin Islands 1110.
- 5. Plaintiff Memomi is incorporated under the laws of Delaware with places of business at 228 Hamilton Ave, Palo Alto, California 94301 and 81 Derech Yavne St, Rehovot, Israel 7634114.
- 6. Facebook, Inc. ("Facebook") is incorporated under the laws of Delaware, with its principal place of business at 1601 Willow Road, Menlo Park, California 94025.
- 7. Instagram, LLC ("Instagram"), a wholly-owned subsidiary of Facebook, is incorporated under the laws of Delaware with its principal place of business at 1601 Willow Road, Menlo Park, California 94025.
- 8. WhatsApp Inc. ("WhatsApp"), a wholly-owned subsidiary of Facebook, is incorporated under the laws of Delaware, with its principal place of business at 1601 Willow Road, Menlo Park, California 94025.

BACKGROUND

9. Salvador Nissi Vilcovsky and Ofer Saban, the inventors of the patents asserted in this lawsuit, and the founders of EyesMatch and Memomi, are pioneers in the field of digital

mirrors and related technologies for computerized appearance comparison.

- 10. In 2004, well before the digital "selfie" became a universal form of self-expression in social media, Mr. Vilcovsky recognized that the proliferation of computing devices (*e.g.*, laptops, PDAs, mobile phones) integrated with cameras made possible a revolutionary "digital mirror", enabled by appropriate software, that could both duplicate the functioning of a physical mirror, and greatly expand its capabilities. Mr. Vilcovsky recognized that, with a true digital mirror, users would want, *inter alia*, to: see themselves onscreen, as if they were looking in a mirror; "try on" different clothes, makeup, hairstyle or other appearance changes; digitally alter their body appearance; and share their digital mirror images with others. Based on these insights, EyesMatch filed patent applications which covered the fundamental use case of taking pictures in front of a digital mirror, adding digital effects, and sharing those images with others. While EyesMatch envisioned the digital mirror as a novel and unrealized way to capture, recall, compare, and share self-images, it recognized that its innovations had wide applicability to fields such as video calling and video conferencing.
- 11. In 2012, Mr. Saban joined Mr. Vilcovsky in founding Memomi to productize the patented technologies. Together, they developed and patented further innovations in digital mirror and appearance comparison technologies, including: "smart" cameras that can follow subjects around a room from a stationary lens; "eye-matching" to keep a subject's face centered in the field of view; and virtual pan and zoom.
- 12. Today, Memomi's patented products and technologies power a wide range of digital appearance comparison solutions that have been deployed by household names such as Sam's Club, Walmart, Neiman Marcus, Luxottica, L'Oréal, Estee Lauder, Shiseido, DFS, Chanel, and LVMH, including virtual hair and makeup try-ons and virtual eyeglass fit and measurement.

13. Memomi's patented products have received widespread recognition for their innovative nature, including awards¹ and acclamatory press coverage – demonstrating the novelty and non-conventional nature of the inventions claimed in the Patents-in-Suit. For example, Allure magazine described Memomi's "Memory Makeover" digital mirror for Neiman Marcus stores as "pure genius," and Memomi's digital mirror product has been featured on Good Morning America providing virtual makeup try-ons using the patented technologies.³

¹ *See*, *e.g.*, https://vimeo.com/133031019 (innovation competition held by Japanese department store Isetan Mitsukoshi); https://bold-awards.com/salute-the-boldest-of-the-bold/ (Bold Awards' "Boldest Innovator" award).

² https://www.allure.com/story/neiman-marcus-high-tech-mirrors. See also Tech Tackles the Fitting Room, https://www.racked.com/2017/4/19/15199318/tech-fitting-room ("How many times have you shared a dressing room selfie with friends to get their opinions? Now, says Scott Emmons, head of Neiman Marcus's Innovation Lab, there is a better way. With a push of a button, a smart digital mirror in a Neiman Marcus fitting room can record how you look with a 360-degree view. . . . You can also use this mirror to record multiple try-ons of an outfit and then stack them alongside each other to see which one you like best. Neiman Marcus uses proprietary technology from tech company Memomi for its digital mirrors."); "How Neiman Marcus innovates to adapt," https://nrf.com/blog/how-neiman-marcus-innovates-adapt ("The Neiman Marcus iLab successfully introduced the "memory mirror," a digital mirror that can record a customer from different angles in the fitting room. The customer can then compare multiple outfits side-by-side or even solicit advice from friends on social media. The experiment was so well received that Neiman Marcus is working to expand the platform's technology. A newer development is the memory makeover mirror, which allows a store's beauty specialists to record makeup sessions with customers and then share a video tutorial so they can create the look at home."); "Upscale stores try 'smart' mirrors to help customers shop," https://nypost.com/2015/05/11/upscale-stores-try-smart-mirrors-to-help-customers-shop/ ("The patented MemoryMirror from a Palo Alto, California-based company called MemoMi is one of the most advanced in this so-called virtual dressing. . . . ").

³ https://vimeo.com/217404337.



https://www.allure.com/story/neiman-marcus-high-techmirrors



https://www.racked.com/2017/4/19/15199318/tech-fitting-room

14. To the extent marking or notice was required by 35 U.S.C. § 287, Plaintiffs have complied with the requirements of that statute by marking Memomi's products with the Asserted Patents pursuant to 35 U.S.C. § 287(a).

JURISDICTION AND VENUE

- 15. This is an action for patent infringement arising under the Patent Laws of the United States of America, Title 35, United States Code.
- 16. This Court has subject-matter jurisdiction over Plaintiffs' claims under 28 U.S.C. §§ 1331 and 1338(a).
 - 17. Plaintiff Memomi is incorporated under the laws of the State of Delaware.
 - 18. Defendant Facebook is incorporated under the laws of the State of Delaware.
- 19. This Court has general and specific personal jurisdiction over Facebook. Facebook has continuous and systematic business contacts with the State of Delaware and has committed acts of patent infringement within the State of Delaware and the District of Delaware. For example, Facebook, directly and/or through intermediaries (including advertising agencies and others),

conducts and solicits business in the State of Delaware and attempts to derive benefit from residents of the State of Delaware by marketing, selling, offering for sale, making, and/or using its products and/or services, including the Facebook Messenger Application for mobile devices ("Messenger App"), the Facebook Application for mobile devices ("Facebook App"), and Portal by Facebook devices ("Portal"), in the State of Delaware and the District of Delaware.

- 20. As described herein, such acts constitute infringement occurring within the State of Delaware and the District of Delaware.
 - 21. Defendant Instagram is incorporated under the laws of the State of Delaware.
- 22. This Court has general and specific personal jurisdiction over Instagram. Instagram has continuous and systematic business contact with the State of Delaware and has committed acts of patent infringement within the State of Delaware and the District of Delaware. For example, Instagram, directly and/or through intermediaries (including advertising agencies and others), conducts and solicits business in the State of Delaware and attempts to derive benefit from residents of the State of Delaware by marketing, selling, offering for sale, making, and/or using its products and/or services, including the Instagram Application for mobile devices ("Instagram App"), in the State of Delaware and the District of Delaware.
- 23. As described herein, such acts constitute infringement occurring within the State of Delaware and the District of Delaware.
 - 24. Defendant WhatsApp is incorporated under the laws of the State of Delaware.
- 25. This Court has general and specific personal jurisdiction over WhatsApp. WhatsApp has continuous and systematic business contact with the State of Delaware and has committed acts of patent infringement within the State of Delaware and the District of Delaware. For example, WhatsApp, directly and/or through intermediaries (including advertising agencies

and others), conducts and solicits business in the State of Delaware and attempts to derive benefit from residents of the State of Delaware by marketing, selling, offering for sale, making, and/or using its products and/or services, including the WhatsApp Application for mobile devices ("WhatsApp App"), in the State of Delaware and the District of Delaware.

- 26. As described herein, such acts constitute infringement occurring within the State of Delaware and the District of Delaware.
- 27. Venue is proper in this judicial district under 28 U.S.C. § 1391(b) and (c), and 1400(b) as to Facebook. Facebook is incorporated under the laws of the State of Delaware and has committed acts of infringement in the District of Delaware. Facebook has committed acts of infringement by, among other things, marketing, distributing, selling, offering for sale, making, and/or using infringing products, including the Messenger App, the Facebook App, and Portal, in the State of Delaware and the District of Delaware.
- 28. Venue is proper in this judicial district under 28 U.S.C. §§ 1391(b) and (c), and 1400(b) as to Instagram. Instagram is incorporated under the laws of the State of Delaware and has committed acts of infringement in the District of Delaware. Instagram has committed acts of infringement by, among other things, marketing, selling, distributing, offering for sale, making, and/or using infringing products, including the Instagram App, in the State of Delaware and the District of Delaware.
- 29. Venue is proper in this judicial district under 28 U.S.C. § § 1391(b) and (c), and 1400(b) as to WhatsApp. WhatsApp is incorporated under the laws of the State of Delaware and has committed acts of infringement in the District of the Delaware. WhatsApp has committed acts of infringement by, among other things, marketing, selling, distributing, offering for sale, making, and/or using infringing products, including the WhatsApp App, in the State of Delaware and the

District of Delaware.

- 30. Upon information and belief and as further explained below, Defendants have been and are acting in concert, and are otherwise liable jointly, severally or otherwise for a right to relief related to or arising out of the same transaction, occurrence, or series of transactions or occurrences related to the making, using, selling, offering for sale or otherwise distributing the Facebook Portal devices, Facebook, Facebook Messenger, WhatsApp, and Instagram apps in this District and elsewhere in the United States. In addition, this action involves questions of law and fact that are common to all Defendants.
- 31. Facebook's Form 10-Q filing to the Securities Exchange Commission for the period ending on June 30, 2020, uses the term "Family" to refer to "our Facebook, Instagram, Messenger, and WhatsApp products" and reports "estimates of the numbers of our daily active people (DAP), monthly active people (MAP), and average revenue per person (ARPP) (collectively, our 'Family metrics') based on the activity of users who visited at least one of Facebook, Instagram, Messenger, and WhatsApp (collectively, our 'Family' of products) during the applicable period of measurement."

 See

 https://investor.fb.com/financials/sec-filings-details/default.aspx?FilingId=14302237. Upon information and belief, Facebook does not separately report revenue from the Accused Products in its filings to the Securities Exchange Commission, but rather reports combined revenue.
- 32. Market analysis indicates that Facebook, WhatsApp, and Instagram and their respective products are viewed in the market as an integrated package with each of the products benefitting from substantial network effects.⁴

⁴ See https://www.marketwatch.com/story/the-youtube-and-instagram-secret-that-google-and-facebook-dont-want-you-to-know-2018-01-26 (accessed January 18, 2021) ("For some analysts,

- 33. Upon information and belief, between 2017 and the filing of this Complaint, Facebook migrated the Instagram and WhatsApp services from third party servers onto servers in Facebook's own data centers.
- 34. Upon information and belief, Facebook not only "owns," but also "operates" both Instagram and WhatsApp, such operation including the cooperative development, improvement, and/or support of their respective services.⁵
- 35. Upon information and belief, user information is shared between Facebook, Instagram and WhatsApp. For example, upon information and belief, Facebook "shares information about" Facebook's users with Instagram and WhatsApp "to facilitate, support and integrate [the Instagram App's and WhatsApp Messenger's] activities and improve our services." Likewise, upon information and belief, Instagram processes information "to support Facebook, Instagram, Messenger and other products and features offered by Facebook (Facebook Products

the question of breaking out revenue for Instagram is moot, however, because the company essentially sells ads for Facebook and Instagram as a single package. . . ."); http://markets.businessinsider.com/news/stocks/facebook-stock-price-analyst-interview-2017-8-1002276065 (accessed January 18, 2021) ("More and more people are spending more of their daily waking hours on Facebook. We estimate that across Facebook's different properties - Facebook.com, WhatsApp, Messenger, and Instagram - users spend on average close to an hour every day. That metric was a lot lower two or three years ago. By having people spend more time on the sites or apps, they're obviously consuming more content, more pages, and giving Facebook the ability to monetize against that content and pages.");

https://www.morningstar.in/posts/59194/3/5-global-stocks-you-can-invest-in.aspx (accessed January 18, 2021) ("Now that Facebook has emerged as the clear-cut social media leader, we believe that the company's offerings, consisting mainly of Facebook, Instagram, Messenger, and WhatsApp, have further strengthened network effects for the firm, where all of these platforms become more valuable to its users as people both join the networks and use these services.").

⁵ See https://www.facebook.com/help/111814505650678 (accessed January 18, 2021); see also https://help.instagram.com/155833707900388 (accessed January 18, 2021).

⁶ See https://www.facebook.com/help/111814505650678 (accessed Jan. 18, 2021); see also https://help.instagram.com/155833707900388 (accessed Jan. 18, 2021).

or Products)."⁷ Similarly, "[a]s part of the Facebook family of companies, WhatsApp receives information from, and shares information with, this family of companies [including Facebook]. We may use the information we receive from them, and they may use the information we share with them, to help operate, provide, improve, understand, customize, support, and market our Services and their offerings."⁸

- 36. Upon information and belief, WhatsApp and Instagram have endeavored to integrate their applications with Facebook from a technical standpoint including, but not limited to, the Instagram App allowing users to double-post Instagram Stories directly to Facebook from the Instagram App, the integration of Instagram Direct (messaging feature) with Facebook Messenger to allow cross-platform communication, and providing Portal the ability to pull photos from a user's Instagram account to display in Portal's SuperFrame feature and to allow a user to make calls with the user's WhatsApp contact list.
- 37. Accordingly, Facebook is acting in concert with WhatsApp and Instagram in connection with the provision of their photo and video capturing and sharing services, which are at issue in this action.
- 38. Accordingly, Defendants may be joined in a single action for patent infringement, pursuant to 35 U.S.C. § 299(a).

ASSERTED PATENTS

39. On January 7, 2014, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 8,624,883 (the "883 Patent"), entitled "Devices, Systems and Methods of

⁷ See https://help.instagram.com/155833707900388 (accessed Jan. 18, 2021).

⁸ See https://www.whatsapp.com/legal/privacy-policy (accessed Jan. 20, 2021); see also https://blog.whatsapp.com/10000627/Looking-ahead-for-WhatsApp (accessed Jan. 18, 2021).

Capturing and Displaying Appearances," to Nissi Vilcovsky. A copy of the 883 Patent is attached to the Complaint as Exhibit A.

- 40. Memomi is the exclusive licensee of the 883 Patent, with the exclusive right to enforce the 883 Patent.
- 41. EyesMatch is the owner of the remaining right, title, and interest in and to the 883 Patent.
- 42. The 883 Patent is directed to systems and methods for enabling appearance comparison with an interactive display station that is capable of operating in both a mirror mode and a display mode (or both modes simultaneously), including with virtual effects such as simulations of different user appearances such as hair styles or clothing. *See, e.g.*, Ex. A (883 Patent) at Abstract, 9:48-63.
- 43. The elements claimed by the 883 Patent, taken alone or in combination, were not well-understood, routine or conventional to one of ordinary skill in the art at the time of the invention. Rather, the 883 Patent claims and teaches, *inter alia*, an unconventional way to use conventional camera and display devices to provide an improved system for appearance comparison, which was not present in the state of the art at the time of the invention.
- 44. The written description of the 883 Patent describes, in technical detail, each of the limitations in the claims, allowing a person of skill in the art to understand what those limitations cover, and therefore what was claimed, and also understand how the non-conventional and non-generic ordered combination of the elements of the claims differ markedly from what had been performed in the industry prior to the inventions of the 883 Patent.
- 45. As the specification explains, the claims of the 883 Patent are directed to addressing the shortcomings in a typical appearance comparison scenario such as shopping for clothes or

makeup in which "Prior to making a decision [as to] which article to buy a customer may try on various articles (e.g., apparel, cosmetics) and/or pose with other articles (e.g., furniture), and may view for each trial a user-appearance in front of a mirror". Ex. A (883 Patent) at 1:32-35. However, "since the customer may try on numerous articles" and may try them on a different times "the customer may not be able to recall his/her appearance for each trial and may therefore be required to repeatedly retry articles, e.g., items of apparels, previously tried on". Ex. A (883 Patent) at 1:45-50. The claims of the 883 Patent are therefore directed at alleviating this "frustrating and inefficient shopping experience." Ex. A (883 Patent) at 1:50-51

- 46. The claims of the 883 Patent describe a technological solution to these problems by claiming an "interactive imaging and display station" comprising both a camera and a "mirror-display device," such as a computer or mobile device, that is capable of "selectably operating in mirror mode, a display mode, or both a mirror and a display mode." *See e.g.*, Ex. A (883 Patent) at 3:46-53, Claims 1, 12. In the "mirror mode," a subject is presented with a real-time mirrored view of themselves, while in the display mode of operation, prior mirror views may be recalled from storage and displayed to enable appearance comparison. This allows a user to compare appearance "simultaneously or sequentially" rather than having to, *e.g.*, rely on the user's own recollection, or solely by displaying images that are not live, and not mirrored. *See* Ex. A (883 Patent) 4:30-36, Claim 1. By enabling a selectable mirror mode that presents mirror images either in place of, or alongside previously stored images, the claims are directed to a specific, unconventional improvement to the way computer and camera systems used for appearance comparison operate.
- 47. The systems and methods covered by the asserted claims, therefore, differ markedly from the prior systems in use at the time of this invention, which, *inter alia*, lacked an interactive

imaging and display station comprising both a camera and a mirror-display device, such as a computer or mobile device, that is capable of selectably operating in mirror mode, a display mode, or both a mirror and a display mode.

- 48. The mirror-display device can be connected over a network with other mirror display devices such that the images may be shared or viewed at different locations. *See*, *e.g.*, Ex. A (883 Patent) at 5:54-59, 6:53-60, Claims 8, 9. This allows a user to compare appearance without being locked down to a single device or location. The mirror-display device can also render "virtual effects" on the user's appearance to simulate different looks by changing hair, clothing, or furniture. *See* Ex. A (883 Patent) at 9:48-63, Claim 17. This allows a user to compare appearance without having to change anything in real life. None of these elements, taken alone or in combination, were well-understood, routine or conventional to one of ordinary skill in the art at the time of the invention.
- 49. On May 24, 2011, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 7,948,481 (the "481 Patent"), entitled "Devices, Systems and Methods of Capturing and Displaying Appearances," to Nissi Vilcovsky. A copy of the 481 Patent is attached to the Complaint as Exhibit B.
- 50. Memomi is the exclusive licensee of the 481 Patent, with the exclusive right to enforce the 481 Patent.
- 51. EyesMatch is the owner of the remaining right, title, and interest in and to the 481 Patent.
- 52. The 481 Patent is directed to systems and methods for enabling appearance comparison with an interactive display station that is capable of operating in both a mirror mode and a display mode. The interactive display station may be portable and/or connected over a

network with another interactive display station that may display captured images of the user(s). *See*, *e.g.*, Ex. B (481 Patent) at Abstract, 5:52-67, 6:12-25.

- 53. The elements claimed by the 481 Patent, taken alone or in combination, were not well-understood, routine or conventional to one of ordinary skill in the art at the time of the invention. Rather, the 481 Patent claims and teaches, *inter alia*, an unconventional way to use conventional camera and display devices to provide an improved system for appearance comparison, which was not present in the state of the art at the time of the invention.
- The written description of the 481 Patent describes, in technical detail, each of the 54 limitations in the claims, allowing a person of skill in the art to understand what those limitations cover, and therefore what was claimed, and also understand how the non-conventional and nongeneric ordered combination of the elements of the claims differ markedly from what had been performed in the industry prior to the inventions of the 481 Patent. As the specification explains, the claims of the 481 Patent are directed to addressing the shortcomings in a typical appearance comparison scenario such as shopping for clothes or makeup in which "[p]rior to making a decision [as to] which article to buy a customer may try on various articles (e.g., apparel, cosmetics) and/or pose with other articles (e.g., furniture), and may view for each trial a user-appearance in front of a mirror". Ex. B (481 Patent) at 1:29-32. However, "since the customer may try on numerous articles" and may try them on at different times "the customer may not be able to recall his/her appearance for each trial and may therefore be required to repeatedly retry articles, e.g., items of apparels, previously tried on". Ex. B (481 Patent) at 1:42-47. The claims of the 481 Patent are therefore directed at alleviating this "frustrating and inefficient shopping experience." Ex. B (481 Patent) at 1:47-48.
 - 55. The claims of the 481 Patent describe a technological solution to this problem by

claiming an "interactive imaging and display station" comprising both an "image-capturing device" (*e.g.*, a camera) and a "mirror-display device," such as a computer or mobile device, that is capable of "switching between at least a mirror mode of operation and a display mode of operation." *See e.g.*, Ex. B (481 Patent) at 3:44-51, Claims 1, 16. In the "mirror mode," a subject is presented with a real-time mirrored view of themselves, while in the display mode of operation, prior mirror views may be recalled from storage and displayed to enable appearance comparison. This allows a user to compare appearance "simultaneously or sequentially" rather than having to, *e.g.*, rely on the user's own recollection, or solely by displaying images that are not live, and not mirrored. *See* Ex. B (481 Patent) 4:28-34, Claim 16. By enabling a selectable mirror mode that presents mirror images either in place of, or alongside previously stored images, and can be switched to a display mode, the claims are directed to a specific, unconventional improvement to the way computer and camera systems used for appearance comparison operate.

- 56. The systems and methods covered by the asserted claims, therefore, differ markedly from the prior systems in use at the time of this invention, which, *inter alia*, lacked an interactive imaging and display station comprising both a camera and a mirror-display device, such as a computer or mobile device, that is capable of selectably operating in at least a mirror mode and a display mode.
- 57. The mirror-display device can be connected over a network with other mirror display devices such that the images may be shared or viewed at different locations and the mirror-display device may be portable. *See*, *e.g.*, Ex. B (481 Patent) at 5:52-57, 6:12-21, 6:50-55, Claims 6, 8, 9. This allows a user to compare appearance without being locked down to a single device or location. None of these elements, taken alone or in combination, were well-understood, routine or conventional to one of ordinary skill in the art at the time of the invention.

- 58. On March 17, 2015, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 8,982,109 (the "109 Patent"), entitled "Devices, Systems and Methods of Capturing and Displaying Appearances," to Nissi Vilcovsky and Ofer Saban. A copy of the 109 Patent is attached to the Complaint as Exhibit C.
- 59. Memomi is the exclusive licensee of the 109 Patent, with the exclusive right to enforce the 109 Patent.
- 60. EyesMatch is the owner of the remaining right, title, and interest in and to the 109 Patent.
- 61. The 109 Patent is directed to methods of modifying a stream of images of a user captured by a camera, such that the images appear to be the reflection of a mirror, including by reversing, resizing, or mapping the image to adjust it against a reference image, or changing shading or illumination of the image. *See, e.g.*, Ex. C (109 Patent) at Claims 1, 7, and 9.
- 62. The elements claimed by the 109 Patent, taken alone or in combination, were not well-understood, routine or conventional to one of ordinary skill in the art at the time of the invention. Rather, the 109 Patent claims and teaches, *inter alia*, an unconventional way to use cameras, computers, and display devices to modify a stream of live images of a user such that the images appeared mirrored, including by reversing, resizing, or mapping the image to adjust it against a reference image, or changing shading or illumination of the image. *See, e.g.*, Ex. C (109 Patent) at Claims 1, 7, and 9. The claims of the 109 Patent are directed to techniques that convincingly render a user's images so that it appears to the user that they are looking in a conventional mirror something which was not present in the state of the art at the time of the invention. Ex. C (109 Patent) at 1:63-2:3.
 - 63. The written description of the 109 Patent describes, in technical detail, each of the

limitations in the claims, allowing a person of skill in the art to understand what those limitations cover, and therefore what was claimed, and also understand how the non-conventional and non-generic ordered combination of the elements of the claims differ markedly from what had been performed in the industry prior to the inventions of the 109 Patent. As the 109 Patent specification explains, a traditional video camera is a poor substitute for a mirror: while "[a] few alternatives have been proposed by prior art around the combination of a camera and a screen to replace the conventional mirror," it explains that "these techniques are not convincing and are not yet accepted as a reliable image of the individual as if he was looking at himself in a conventional mirror," primarily "because the image generated by a camera is very different from an image generated by a mirror." 109 Patent, 1:62-2:4.

64. As the specification explains, one well-understood "difference from a camera is that when one looks at a mirror, one's image appears to be reversed (e.g., if one raises one's right hand, his left hand will appear to go up in the mirror)." 109 Patent, 2:33-36. A conventional camera and display presents a non-reversed image. The specification explains that another important difference between a camera image and a mirror image is the apparent size of the subject as they move closer in or farther away from the display. "When a user looks at himself in the mirror, what he actually sees is the reflection of himself as if he was standing at a distance that is *double the distance from him to the mirror*." 109 Patent, 2:4-6. Since "the angle of the user's Field of View (FOV) changes when the user changes the distance, e.g., gets closer, to the mirror," a consequence of this phenomenon is that "when the user approaches the mirror, the FOV angle increases, which is why he continues to see the same size reflection (FOV1<FOV2), so that the user actually sees himself roughly at the same size, but closer." 109 Patent, 2:4-23. The 109 Patent specification explains that "[t]his is a noticeable difference from a camera, wherein as the user gets closer to the

camera, he appears larger in the image. This is mainly because the FOV of a camera is fixed and is determined mainly by the size of the camera lens, or focal length." 109 Patent, 2:23-27.

- 65. The 109 Patent specification explains another difference: unlike a camera, "the mirror can be smaller than the full body and the user will still see the reflection of his full body," because "the specular reflection . . . can increase the effective field of view while the user approaches the mirror." 109 Patent, 2:41-46. A user approaching a conventional camera and computer display would see less and less of their body as they approach. The specification explains that another difference between a mirror and a conventional camera display is that "when the user approaches the mirror, the reflection of his eyes will always stay on the same virtual line into the mirror. Conversely, depending on a camera's height, as the user gets closer to the camera, the user's eyes may appear at different levels." 109 Patent, 2:29-33. Because of these differences, the specification notes, "so far no system has been provided for imitating a mirror convincingly." 109 Patent, 2:49-50.
- 66. The claims of the 109 Patent describe a technological solution to these problems by implementing a series of software transformations of the received image that cause a camera and conventional computer to mimic a mirror with a captured video stream. First, the image is flipped. *See, e.g.*, Claim 1. Then, a "transformation mapping" is applied to modify the image to mimic a mirror image; the 109 Patent specification explains that such "transformation mappings" can include an algorithm that moves the image of the subject in the frame so as to keep their eyes consistently at the same level of the frame, as would occur with a mirror. Ex. C (109 Patent) 19:31-52, Claim 1. The image is then resized in accordance with changes in subject's distance from the camera; this causes the camera/computer to display the subject at a consistent size when they approach or move away from the camera, as a mirror does, instead of increasing in size to the point

at which they take up the entire frame. *See, e.g.*, Ex. C (109 Patent) at Claim 1. Finally, the system applies these transformations at a variable rate as a function of distance in order to smoothly mimic a mirror. *See, e.g.*, Ex. C (109 Patent) at Claim 1. The specification also discloses using a reference image of the user can be obtained and key points of the user's appearance identified so that the transformation mapping can be pre-programmed which will "yield the best transformation to match the eyes and the full body based on multiple pointers." *See, e.g.*, Ex. C (109 Patent) at 17:29-41, 21:19-30, 21:61-22:5, Claim 7. To further enhance the mirror experience, the user's image can be shaded or illuminated by changing the intensity of individual or groups of pixels creating greater depth perception. *See, e.g.*, Ex. C (109 Patent) at 24:9-12. None of these elements, taken alone or in combination, were well-understood, routine or conventional to one of ordinary skill in the art at the time of the invention.

- 67. The systems and methods covered by the asserted claims, therefore, differ markedly from the prior systems in use at the time of this invention, which, *inter alia*, lacked these features. By enabling software transformations of the received image that cause a camera and conventional computer to mimic a mirror with a captured video stream, the claims are directed to a specific, unconventional improvement to the way computers, cameras, and display devices operate.
- 68. On March 17, 2015, the United States Patent and Trademark Office duly and legally issued U.S. Patent No. 8,982,110 (the "110 Patent"), entitled "Method for Image Transformation, Augmented Reality, and Teleperence," to Ofer Saban and Nissi Vilcovsky. A copy of the 110 Patent is attached to the Complaint as Exhibit D.
- 69. Memomi is the exclusive licensee of the 110 Patent, with the exclusive right to enforce the 110 Patent.
 - 70. EyesMatch is the owner of the remaining right, title, and interest in and to the 110

Patent.

- 71. The 110 Patent is directed to methods of modifying a stream of images of a user with adaptive transformation mapping so that the images appear to be captured from a different point of view than that of the camera's actual point of view, including by, for example, rotating, resizing, or varying image magnitude, additionally applying virtual effects to the user's image including generating different backgrounds, and transmitting the images across a network for display. *See, e.g.*, Ex. D (110 Patent) at Claims 1, 2, 5, 6, 10, 11, 12, 16, 17, and 18.
- 72. The elements claimed by the 110 Patent, taken alone or in combination, were not well-understood, routine or conventional to one of ordinary skill in the art at the time of the invention. Rather, the 110 Patent claims and teaches, *inter alia*, an unconventional way to use cameras, computers, and display devices to modify a stream of images of a user such that the displayed images appear to be captured from a different point of view than that of the camera taking the images. As the 110 Patent explains, this transformation technique "can be used to create a reliable video conference when the user/users on the other side of the line can see the participant as if the participant were looking directly at them, rather than having an image from the view-point of the camera. Alternately, transformation can be used to create an image as if a user were looking into the eyes of another user in order to provide a convincing, live experience." Ex. D (110 Patent) at 7:35-41. Neither these techniques nor their effect were present in the state of the art at the time of the invention.
- 73. The written description of the 110 Patent describes, in technical detail, each of the limitations in the claims, allowing a person of skill in the art to understand what those limitations cover, and therefore what was claimed, and also understand how the non-conventional and non-generic ordered combination of the elements of the claims differ markedly from what had been

performed in the industry prior to the inventions of the 110 Patent. As the 110 Patent specification explains, a traditional video camera is a poor substitute for a mirror: while "a few alternatives have been proposed [by prior art] around the combination of a camera and a screen to replace the conventional mirror," it explains that "these techniques are not convincing and are not yet accepted as a reliable image of the individual as if he was looking at himself in a conventional mirror," primarily "because the image generated by a camera is very different from an image generated by a mirror." Ex. D (110 Patent) at 1:55-64, Ex. C (109 Patent) at 1:61-2:3 (incorporated by reference into the 110 Patent at Ex. D, 1:23-39).

74. As the specification explains, one well-understood "difference from a camera is that when one looks at a mirror, one's image appears to be reversed (e.g., if one raises one's right hand, his left hand will appear to go up in the mirror)." 109 Patent, 2:33-36. A conventional camera and display presents a non-reversed image. The specification explains that another important difference between a camera image and a mirror image is the apparent size of the subject as they move closer in or farther away from the display. "When a user looks at himself in the mirror, what he actually sees is the reflection of himself as if he was standing at a distance that is double the distance from him to the mirror." 109 Patent, 2:4-6. Since "the angle of the user's Field of View (FOV) changes when the user changes the distance, e.g., gets closer, to the mirror," a consequence of this phenomenon is that "when the user approaches the mirror, the FOV angle increases, which is why he continues to see the same size reflection (FOV1<FOV2), so that the user actually sees himself roughly at the same size, but closer." 109 Patent, 2:4-23. The 109 Patent specification explains that "[t]his is a noticeable difference from a camera, wherein as the user gets closer to the camera, he appears larger in the image. This is mainly because the FOV of a camera is fixed and is determined mainly by the size of the camera lens, or focal length." 109 Patent, 2:23-27.

- The specification explains another difference: unlike a camera, "the mirror can be smaller than the full body and the user will still see the reflection of his full body," because "the specular reflection . . . can increase the effective field of view while the user approaches the mirror." 109 Patent, 2:41-46. A user approaching a conventional camera and computer display would see less and less of their body as they approach. The specification explains that another difference between a mirror and a conventional camera display is that "when the user approaches the mirror, the reflection of his eyes will always stay on the same virtual line into the mirror. Conversely, depending on a camera's height, as the user gets closer to the camera, the user's eyes may appear at different levels." 109 Patent, 2:29-33. Because of these differences, the specification notes, "so far no system has been provided for imitating a mirror convincingly." 109 Patent, 2:49-50.
- The claims of the 110 Patent address these differences by applying software transformations to a stream of images captured by a camera to generate modified images that appear to be captured from a different point of view of the camera's actual point of view, thereby enabling the displayed image to match the user's eyes as they would appear in a mirror, or by keeping the user in the center of the display frame even as they move. *See, e.g.*, Ex. D (110 Patent) at 7:35-41. ("Base video transformation can be used to create a reliable video conference when the user/users on the other side of the line can see the participant as if the participant were looking directly at them, rather than having an image from the view-point of the camera. Alternately, transformation can be used to create an image as if a user were looking into the eyes of another user in order to provide a convincing, live experience."). First, when a user is detected in the image stream, the processor applies an "adaptive transformation mapping" to generate and display modified images that "appear to be captured from a different point of view of the camera's actual

point of view," wherein that artificially generated point of view corresponds to both a different camera angle and a different distance, based on "parametric input" used for the claimed mapping transformation. *See, e.g.*, Ex. D (110 Patent) at Claim 1. By enabling adaptive transformation mappings that generate and display a modified stream of images that appear to be captured from a different point of view of the camera's actual point of view, the claims are directed to a specific, unconventional improvement to the way computers operate.

- 77. The claimed methods of the 110 Patent can further augment the modified images by overlaying virtual objects on them, such as by changing colors of clothing items, or adding new clothing items, or by adding virtual backgrounds. *See, e.g.*, Ex. D (110 Patent) at 5:9-13, 10:65-11:1, 14:47-53, 14:63-67, 23:19-28, 24:27-36, 28:19-25, Fig. 3, Claims 10, 16, and 17. The claimed methods can also transmit images over a network for additional processing or for display on a remote screen. *See, e.g.*, Ex. D (110 Patent) at 8:32-38, 8:62-9:3, 9:6-20, 10:58-62, 33:21-26, 24:20-26, Claims 11, 12, and 18. None of these elements, taken alone or in combination, were well-understood, routine or conventional to one of ordinary skill in the art at the time of the invention.
- 78. The methods covered by the asserted claims, therefore, differ markedly from the prior systems in use at the time of this invention, which, *inter alia*, lacked a processor capable of applying an adaptive transformation mapping to generate and display modified images that appear to be captured from a different point of view of the camera's actual point of view that corresponds to both a different camera angle and a different distance.
- 79. The 883 Patent, 481 Patent, 109 Patent, and 110 Patent (collectively the "Asserted Patents") are valid and enforceable.

THE INFRINGING PRODUCTS

80. As described further below, Defendants' photo and video capturing and sharing

products and applications—including at least Facebook Portal devices, and the Facebook App, the Facebook Messenger App, the WhatsApp App, and the Instagram App (collectively, the "Accused Products")—practice claimed inventions of the Patents-in-Suit.

- 81. Facebook performs in the United States without authority every step of the patented inventions; and makes, uses, sells, and/or offers to sell in the United States without authority products, services, devices, systems, and/or components of systems that embody the patented inventions, including but not limited to: the Facebook App, including the Facebook Posts, Facebook Stories, and Facebook Live features; the Messenger App, including the Camera, Video Calling, and Stories features; and Portal.
- 82. The Facebook App and the Messenger App allow users to create, save, share, and display live or recorded videos and images including videos and images with virtual effects both mirrored and non-reversed.
- 83. Facebook's Portal comprises four devices (both portable and capable of attachment to a television) Portal TV, Portal Mini, Portal, and Portal+ that allow users to create, save, share, and display live or recorded videos and images including videos and images with virtual effects both mirrored and non-reversed. Portal's "Smart Camera" is touted as allowing a user to move about and talk freely because the camera "Keeps up with the action," "automatically pans and zooms to keep up with the action," "keep[s] everyone in view," and "automatically widens to keep everyone in view." https://portal.facebook.com/.
- 84. Instagram performs in the United States without authority every step of the patented inventions; and makes, uses, sells, and/or offers to sell in the United States without authority products, services, devices, systems, and/or components of systems that embody the patented inventions, including but not limited to the Instagram App, including the Instagram Posts,

Instagram Stories, Instagram Live, and Instagram Reels features.

- 85. The Instagram App allows users to create, save, share, and display live or recorded videos and images, including videos and images with virtual effects both mirrored and non-reversed.
- 86. WhatsApp performs in the United States without authority every step of the patented inventions; and makes, uses, sells, and/or offers to sell in the United States without authority products, services, devices, systems, and/or components of systems that embody the patented inventions, including but not limited to the WhatsApp App.
- 87. The WhatsApp App allows users to create, save, share, and display live or recorded videos and images both mirrored and non-reversed.

COUNT I FOR INFRINGEMENT OF U.S. PATENT NO. 8,624,883 BY FACEBOOK

- 88. Plaintiffs repeat and reallege the allegations in paragraphs 1–87 as though fully set forth herein.
- 89. Upon information and belief, Facebook has directly infringed at least Claim 1 of the 883 Patent in violation of 35 U.S.C. § 271(a), either literally or under the doctrine of equivalents, by, among other things: making, using, offering for sale, selling, and/or importing into the United States the Facebook App, including the Facebook Posts and Facebook Stories features, and the Messenger App, including Camera and Stories features; and/or by performing in the United States without authority every step of the patented inventions. For example, Facebook directly infringes at least Claim 1 of the 883 Patent when it combines its software with mobile device hardware and software by installing the Facebook App and Messenger App, and when it operates the Facebook App and Messenger App, such as for internal testing and development and for internal corporate communication, thereby making and using the infringing systems.
 - 90. Upon information and belief, Facebook has directly infringed at least Claim 12 of

the 883 Patent in violation of 35 U.S.C. § 271(a), either literally or under the doctrine of equivalents, by, among other things: by performing in the United States without authority every step of the patented inventions using the Facebook App, Messenger App, and Facebook Portal, including display of Instagram photos in Portal SuperFrame and facilitating calls with a user's WhatsApp contact list. For example, Facebook directly infringes at least Claim 12 of the 883 Patent when it operates the Facebook App, Messenger App, or Facebook Portal in a manner that practices each limitation of the claim, such as for internal testing and development and for internal corporate communication.

91. On information and belief, Facebook has induced and continues to induce infringement of claims of the 883 Patent pursuant to 35 U.S.C. § 271(b), including at least Claim 1, by encouraging its customers and other third parties to make and/or use the claimed systems, such as by installing and using the Facebook App and Messenger App on their mobile devices, and Claim 12, such as by encouraging its customers and other third parties to perform the claimed methods for appearance comparison with the Facebook App, Messenger App, and Facebook Portal devices, as described above. Such performance of the claimed methods, or making and/or use of the claimed systems, constitutes infringement, literally or under the doctrine of equivalents, of one or more claims of the 883 Patent by such third parties. Facebook's acts of encouragement include: providing and intending that third parties use the Facebook App, including Facebook Posts and Facebook Stories features, Messenger App, including Camera and Stories features, and Portal, to capture, manipulate, display, and share still and moving images in a manner that infringes, and providing instructions to do so⁹; purposefully and voluntarily placing the Facebook App, including

https://www.youtube.com/watch?v=PzBNOA0K3XU&ab_channel=FacebookApp (last accessed

⁹ See, e.g., "Introducing the New Facebook Camera,"

Facebook Posts and Facebook Stories features, Messenger App, including Camera and Stories features, and Portal in the stream of commerce with the expectation that it will be used by customers in the District of Delaware; providing other components of the system that enable and/or make use of the Facebook App, Messenger App, and Portal including, *e.g.*, servers and other network equipment; advertising the Facebook App, Messenger App, and Portal through its own and third-party media platforms, including websites and television. Furthermore, Facebook has actual knowledge of how the Facebook App, including Facebook Posts and Facebook Stories features, Messenger App, including Camera and Stories features, and Portal work, including how they are used by customers. Facebook has undertaken these acts of encouragement with the specific intent that end-users use such Accused Products as intended by Facebook in a manner that infringes the asserted claims of the 883 Patent.

92. Facebook proceeded in this manner despite its actual knowledge of the 883 Patent and that the specific actions it is actively inducing on the part of its customers and other third parties constitute infringement of the 883 Patent as of the date of the filing of this Complaint. At the very least, because Facebook is on notice of the 883 Patent and the accused infringement, as of the date of the filing of this Complaint, it is willfully blind regarding the infringement it has induced and continues to induce.

Jan. 19, 2021); "Portal From Facebook – Feel There,"

https://www.youtube.com/watch?v=oZVFzDjBBq8&ab_channel=FacebookApp (last accessed Jan. 19, 2021); "How do I take and add effects to photos and videos with the Messenger camera?," https://www.facebook.com/help/messenger-app/iphone/575386272659331?rdrhc; "How do I send a photo, video, sticker or voice message in Messenger?,"

https://www.facebook.com/help/messenger-app/iphone/345021679200618/?helpref=hc_fnav

¹⁰ See, e.g., "Introducing the New Facebook Camera,"

https://www.youtube.com/watch?v=PzBNOA0K3XU&ab_channel=FacebookApp (last accessed Jan. 19, 2021); "Portal From Facebook – Feel There,"

https://www.youtube.com/watch?v=oZVFzDjBBq8&ab_channel=FacebookApp (last accessed Jan. 19, 2021).

- 93. On information and belief, Facebook has contributed and continues to contribute to the infringement of the 883 Patent, including infringement of at least Claim 1 (in connection with the Facebook App and Messenger App), and Claim 12 (in connection with Facebook App and Messenger App, and Portal), pursuant to 35 U.S.C. § 271(c) by, without authority, selling and/or offering to sell within the United States, importing, and/or supplying material components of the claimed system for capturing, comparing, displaying, and/or manipulating images, such as its client software for use with mobile devices, and servers and other network infrastructure equipment that enables customers to engage in capturing, comparing, displaying, and/or manipulating images. The Facebook App, Messenger App, and Portal contain software components that are especially made for or adapted for use to infringe the claims of the 883 Patent, and are not a staple article of commerce and are not suitable for substantial non-infringing use. When, for example, the Facebook client software for use with mobile devices, and servers and other network infrastructure equipment are used to enable capturing, comparing, displaying, and/or manipulating images, the claimed system is completed or the claimed method is performed, thereby infringing, literally or under the doctrine of equivalents, at least Claims 1 and 12 of the 883 Patent. On information and belief, Facebook knows, at least as of the date of this Complaint, that these components are especially made and/or especially adapted for use in infringing the 883 Patent.
- 94. Non-limiting examples of how the Facebook App, including Facebook Posts and Facebook Stories features, the Messenger App, including Camera and Stories features, and Portal infringe at least the exemplary claims of the 883 Patent are set forth in Exhibits E-I. The descriptions in Exhibits E-I are preliminary and based on publicly available information. Plaintiffs expect to further develop the evidence of infringement by the Facebook App, including Facebook

Posts and Facebook Stories features, Messenger App, including Camera and Stories features, and Portal after obtaining discovery from Facebook in the course of this action.

- 95. Facebook's acts of infringement cause damage to Plaintiffs, and Plaintiffs are entitled to recover from Facebook damages sustained as a result of Facebook's infringement of the Asserted Patents, but in no event less than a reasonable royalty.
- 96. Facebook's acts of infringement, unless restrained and enjoined, will cause irreparable injury and damage to Plaintiffs for which there is no adequate remedy at law.
- 97. Facebook's infringement of the Asserted Patents is exceptional and entitles Plaintiffs to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

COUNT II FOR INFRINGEMENT OF U.S. PATENT NO. 7,948,481 BY FACEBOOK

- 98. Plaintiffs repeat and reallege the allegations in paragraphs 1–87 as though fully set forth herein.
- 99. Upon information and belief, Facebook has directly infringed at least Claim 1 of the 481 Patent in violation of 35 U.S.C. § 271(a), either literally or under the doctrine of equivalents, by, among other things: making, using, offering for sale, selling, and/or importing into the United States the Facebook App, including the Facebook Posts and Facebook Stories features, the Messenger App, including Camera, Video Calling, and Stories features, and Facebook Portal; and/or by performing in the United States without authority every step of the patented inventions. For example, Facebook directly infringes at least Claim 1 of the 481 Patent when it combines its software with mobile device hardware and software by installing the Facebook App and Messenger App, and when it operates the Facebook App and Messenger App, such as for internal testing and development and for internal corporate communication, thereby making and using the infringing systems. As another example, Facebook directly infringes at least Claim 1 of the 481 Patent when it sells, offers to sell, makes, and uses the Facebook Portal devices, including display of Instagram

photos in Portal SuperFrame and facilitating calls with a user's WhatsApp contact list.

100. On information and belief, Facebook has induced and continues to induce infringement of claims of the 481 Patent pursuant to 35 U.S.C. § 271(b), including at least Claim 1, by encouraging its customers and other third parties to make and/or use the claimed systems or performing the claimed methods, such as by installing and using the Facebook App and Messenger App on their mobile devices or using Facebook Portal devices, as described above. Such making and/or use of the claimed systems, or performance of the claimed methods, constitutes infringement, literally or under the doctrine of equivalents, of one or more claims of the 481 Patent by such third parties. Facebook's acts of encouragement include: providing and intending that third parties use the Facebook App, including Facebook Posts and Facebook Stories features, Messenger App, including Camera, Video Calling, and Stories features, and Portal to capture, display, and share still and moving images in a manner that infringes, and providing instructions to do so¹¹; purposefully and voluntarily placing the Facebook App, including Facebook Posts and Facebook Stories features, Messenger App including Camera, Video Calling, and Stories features, and Portal in the stream of commerce with the expectation that it will be used by customers in the District of Delaware; providing other components of the system that enable and/or make use of the Facebook App, Messenger App, and Portal including, e.g., servers and other network equipment; advertising the Facebook App, Messenger App, and Portal through its own and third-party media platforms,

¹¹ See, e.g., "Introducing the New Facebook Camera,"

https://www.youtube.com/watch?v=PzBNOA0K3XU&ab_channel=FacebookApp (last accessed Jan. 19, 2021); "Portal From Facebook – Feel There,"

https://www.youtube.com/watch?v=oZVFzDjBBq8&ab_channel=FacebookApp (last accessed Jan. 19, 2021); "How do I take and add effects to photos and videos with the Messenger camera?," https://www.facebook.com/help/messenger-app/jphone/575386272659331?rdrhc; "How do I send a photo, video, sticker or voice message in Messenger?,"

https://www.facebook.com/help/messenger-app/iphone/345021679200618/?helpref=hc_fnav

including websites and television. ¹² Furthermore, Facebook has actual knowledge of how the Facebook App, including Facebook Posts and Facebook Stories features, Messenger App, including Camera, Video Calling, and Stories features, and Portal work, including how they are used by customers. Facebook has undertaken these acts of encouragement with the specific intent that end-users use such Accused Products as intended by Facebook in a manner that infringes the asserted claims of the 481 Patent.

101. Facebook proceeded in this manner despite its actual knowledge of the 481 Patent and that the specific actions it is actively inducing on the part of its customers and other third parties constitute infringement of the 481 Patent as of the date of the filing of this Complaint. At the very least, because Facebook is on notice of the 481 Patent and the accused infringement, as of the date of the filing of this Complaint, it is willfully blind regarding the infringement it has induced and continues to induce.

102. On information and belief, Facebook has contributed and continues to contribute to the infringement of the 481 Patent, including infringement of at least Claim 1, pursuant to 35 U.S.C. § 271(c) by, without authority, selling and/or offering to sell within the United States, importing, and/or supplying material components of the claimed system for capturing, comparing, displaying, and/or manipulating images, such as its client software for use with mobile devices, and servers and other network infrastructure equipment that enables customers to engage in capturing, comparing, displaying, and/or manipulating images. The Facebook App, Messenger App, and Portal contain software components that are especially made for or adapted for use to

¹² See, e.g., "Introducing the New Facebook Camera,"

https://www.youtube.com/watch?v=PzBNOA0K3XU&ab_channel=FacebookApp (last accessed Jan. 19, 2021); "Portal From Facebook – Feel There,"

https://www.youtube.com/watch?v=oZVFzDjBBq8&ab_channel=FacebookApp (last accessed Jan. 19, 2021).

infringe the claims of the 481 Patent, and are not a staple article of commerce and are not suitable for substantial non-infringing use. When, for example, the Facebook client software for use with mobile devices, and servers and other network infrastructure equipment are used to enable capturing, comparing, displaying, and/or manipulating images, the claimed system is completed or the claimed method is performed, thereby infringing, literally or under the doctrine of equivalents, at least Claim 1 of the 481 Patent. On information and belief, Facebook knows, at least as of the date of this Complaint, that these components are especially made and/or especially adapted for use in infringing the 481 Patent.

- 103. Non-limiting examples of how the Facebook App, including Facebook Posts and Facebook Stories features, the Messenger App, including Camera, Video Calling, and Stories features, and Portal infringe at least the exemplary claim of the 481 Patent are set forth in Exhibits P-U. The descriptions in Exhibits P-U are preliminary and based on publicly available information. Plaintiffs expect to further develop the evidence of infringement by the Facebook App, including Facebook Posts and Facebook Stories features, Messenger App, including Camera, Video Calling, and Stories features, and Portal after obtaining discovery from Facebook in the course of this action.
- 104. Facebook's acts of infringement cause damage to Plaintiffs, and Plaintiffs are entitled to recover from Facebook damages sustained as a result of Facebook's infringement of the Asserted Patents, but in no event less than a reasonable royalty.
- 105. Facebook's acts of infringement, unless restrained and enjoined, will cause irreparable injury and damage to Plaintiffs for which there is no adequate remedy at law.
- 106. Facebook's infringement of the Asserted Patents is exceptional and entitles Plaintiffs to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

COUNT III FOR INFRINGEMENT OF U.S. PATENT NO. 8,982,109 BY FACEBOOK

107. Plaintiffs repeat and reallege the allegations in paragraphs 1-87 as though fully set forth herein.

108. Upon information and belief, Facebook has directly infringed at least Claim 1 of the 109 Patent in violation of 35 U.S.C. § 271(a), either literally or under the doctrine of equivalents, by performing in the United States without authority every step of the patented invention using products, services, devices, systems, and/or components of systems that embody the patented invention, including but not limited to the Facebook App, including Facebook Stories and Facebook Live features, Messenger App, including the Video Calling feature, and Portal, including display of Instagram photos in Portal SuperFrame and facilitating calls with a user's WhatsApp contact list, or components thereof. For example, Facebook directly infringes at least Claim 1 of the 109 Patent when its software performs each element of the claimed methods, such as when it operates the Accused Products for internal testing and development and for internal corporate communication.

109. On information and belief, Facebook has induced and continues to induce infringement of claims of the 109 Patent pursuant to 35 U.S.C. § 271(b), including at least Claim 1, by encouraging its customers and other third parties to perform the claimed methods, such as by installing and using the Facebook App and Messenger App on their mobile devices and when it sells, offers to sell, makes, and uses Portal, as described above. Such performance of the claimed methods, constitutes infringement, literally or under the doctrine of equivalents, of one or more claims of the 109 Patent by such third parties, including Claim 1. Facebook's acts of encouragement include: providing and intending that third parties use the Facebook App, including Facebook Stories and Facebook Live features, Messenger App, including the Video Calling feature, and Portal to capture, manipulate, display, and share still and moving images in a manner

that infringes, and providing instructions to do so¹³; purposefully and voluntarily placing the Facebook App, including Facebook Stories and Facebook Live features, Messenger App, including the Video Calling feature, and Portal in the stream of commerce with the expectation that it will be used by customers in the District of Delaware; providing other components of the system that enable and/or make use of the Facebook App, including Facebook Stories and Facebook Live features, Messenger App, including the Video Calling feature, and Portal, *e.g.*, servers and other network equipment; advertising the Facebook App, Messenger App, and Portal through its own and third-party media platforms, including websites and television.¹⁴ Furthermore, Facebook has actual knowledge of how the Facebook App, including Facebook Posts and Facebook Stories features, Messenger App, including Camera and Stories features, and Portal works, including how it is used by customers. Facebook has undertaken these acts of encouragement with the specific intent that end-users use such Accused Products as intended by Facebook in a manner that infringes the asserted claims of the 109 Patent.

110. Facebook proceeded in this manner despite its actual knowledge of the 109 Patent and that the specific actions it is actively inducing on the part of its customers and other third

¹³ See, e.g., "Introducing the New Facebook Camera,"

https://www.youtube.com/watch?v=PzBNOA0K3XU&ab_channel=FacebookApp (last accessed Jan. 19, 2021); "Portal From Facebook – Feel There,"

https://www.youtube.com/watch?v=oZVFzDjBBq8&ab_channel=FacebookApp (last accessed Jan. 19, 2021); "How do I take and add effects to photos and videos with the Messenger camera?," https://www.facebook.com/help/messenger-app/jphone/575386272659331?rdrhc;

[&]quot;How do I send a photo, video, sticker or voice message in Messenger?," https://www.facebook.com/help/messenger-app/iphone/345021679200618/?hel

https://www.facebook.com/help/messenger-app/iphone/345021679200618/?helpref=hc_fnav; "Facebook Live," https://www.facebook.com/formedia/solutions/facebook-live.

¹⁴ See, e.g., "Introducing the New Facebook Camera,"

https://www.youtube.com/watch?v=PzBNOA0K3XU&ab_channel=FacebookApp (last accessed Jan. 19, 2021); "Portal From Facebook – Feel There,"

https://www.youtube.com/watch?v=oZVFzDjBBq8&ab_channel=FacebookApp (last accessed Jan. 19, 2021).

parties constitute infringement of the 109 Patent as of the date of the filing of this Complaint. At the very least, because Facebook is on notice of the 109 Patent and the accused infringement, as of the date of the filing of this Complaint, it is willfully blind regarding the infringement it has induced and continues to induce.

- 111. On information and belief, Facebook has contributed and continues to contribute to the infringement of the 109 Patent, including infringement of at least Claim 1, pursuant to 35 U.S.C. § 271(c) by, without authority, selling and/or offering to sell within the United States, importing, and/or supplying material components of the claimed method, such as its client software for use with mobile devices, its Portal devices, and servers and other network infrastructure equipment that enables customers to engage in capturing, comparing, displaying, and/or manipulating images. The Facebook App, Messenger App, and Portal contain software components that are especially made for or adapted for use to infringe the claims of the 109 Patent, and are not a staple article of commerce and are not suitable for substantial non-infringing use. When, for example, the Facebook client software for use with mobile devices, and servers and other network infrastructure equipment are used to enable capturing, comparing, displaying, and/or manipulating images, each step of the claimed method is performed, thereby infringing, literally or under the doctrine of equivalents, at least Claim 1 of the 109 Patent. On information and belief, Facebook knows, at least as of the date of this Complaint, that these components are especially made and/or especially adapted for use in infringing the 109 Patent.
- 112. Non-limiting examples of how the Facebook App, including the Facebook Stories and Facebook Live features, the Messenger App, including the Video Calling feature, and Portal infringe at least the exemplary claim of the 109 Patent set forth in Exhibits BB-EE. The descriptions in Exhibits BB-EE are preliminary and based on publicly available information.

Plaintiffs expect to further develop the evidence of infringement by these products and services after obtaining discovery from Facebook in the course of this action.

- 113. Facebook's acts of infringement cause damage to Plaintiffs, and Plaintiffs are entitled to recover from Facebook damages sustained as a result of Facebook's infringement of the Asserted Patents, but in no event less than a reasonable royalty.
- 114. Facebook's acts of infringement, unless restrained and enjoined, will cause irreparable injury and damage to Plaintiffs for which there is no adequate remedy at law.
- 115. Facebook's infringement of the Asserted Patents is exceptional and entitles Plaintiffs to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

COUNT IV FOR INFRINGEMENT OF U.S. PATENT NO. 8,982,110 BY FACEBOOK

- 116. Plaintiffs repeat and reallege the allegations in paragraphs 1-87 as though fully set forth herein.
- 117. Upon information and belief, Facebook has directly infringed at least Claim 1 of the 110 Patent in violation of 35 U.S.C. § 271(a), either literally or under the doctrine of equivalents, by performing in the United States without authority every step of the patented invention using products, services, devices, systems, and/or components of systems that embody the patented invention, including but not limited to Facebook Portal, including display of Instagram photos in Portal SuperFrame and facilitating calls with a user's WhatsApp contact list, or components thereof. For example, Facebook directly infringes the claims of the 110 Patent when its Portal device performs each element of the claimed methods of the 110 Patent, such as when it operates Portal devices for internal testing and development and for internal corporate communication.
- 118. On information and belief, Facebook has induced and continues to induce infringement of claims of the 110 Patent pursuant to 35 U.S.C. § 271(b), including at least Claim 1,

by encouraging its customers and other third parties to perform the claimed methods for image transformation as described above using the accused Portal devices. Such performance of the claimed methods constitutes infringement, literally or under the doctrine of equivalents, of one or more claims of the 110 Patent by such third parties, including Claim 1. Facebook's acts of encouragement include: providing and intending that third parties use Portal to capture, manipulate, display, and share still and moving images in a manner that infringes, and providing instructions to do so¹⁵; purposefully and voluntarily placing Portal in the stream of commerce with the expectation that it will be used by customers in the District of Delaware; providing other components of the system that enable and/or make use of Portal including, *e.g.*, servers and other network equipment; advertising Portal and its infringing features through its own and third-party media platforms, including websites and television.¹⁶ Furthermore, Facebook has actual knowledge of how Portal works, including how it is used by customers. Facebook has undertaken these acts of encouragement with the specific intent that end-users use such Accused Products as intended by Facebook in a manner that infringes the asserted claims of the 110 Patent.

119. Facebook proceeded in this manner despite its actual knowledge of the 110 Patent and that the specific actions it is actively inducing on the part of its customers and other third parties constitute infringement of the 110 Patent as of the date of the filing of this Complaint. At the very least, because Facebook is on notice of the 110 Patent and the accused infringement, as

¹⁵ See, e.g., "Portal From Facebook – Feel There,"

https://www.youtube.com/watch?v=oZVFzDjBBq8&ab_channel=FacebookApp (last accessed Jan. 19, 2021); "Move and talk freely with Smart Camera. . . .Smart Camera automatically adjusts to stay with the action, whether you're moving around the kitchen or chasing the kids through the living room," https://portal.facebook.com/features/smart-camera/.

¹⁶ See, e.g., "Portal From Facebook – Feel There," https://www.youtube.com/watch?v=oZVFzDjBBq8&ab_channel=FacebookApp (last accessed Jan. 19, 2021).

of the date of the filing of this Complaint, it is willfully blind regarding the infringement it has induced and continues to induce.

- the infringement of the 110 Patent, including infringement of at least Claim 1, pursuant to 35 U.S.C. § 271(c) by, without authority, selling and/or offering to sell within the United States, importing, and/or supplying material components of the claimed method, such as its Portal devices, that enable customers to engage in capturing, comparing, displaying, and/or manipulating images. The Portal devices contain software components that are especially made for or adapted for use to infringe at least Claim 1 of the 110 Patent, and are not a staple article of commerce and are not suitable for substantial non-infringing use. When, for example, the Portal devices are used to enable capturing, manipulating, and/or resizing images, the claimed method is performed, thereby infringing, literally or under the doctrine of equivalents, one of more claims of the 110 Patent. On information and belief, Facebook knows, at least as of the date of this Complaint, that these components are especially made and/or especially adapted for use in infringing the 110 Patent.
- 121. Non-limiting examples of how Facebook Portal infringes at least the exemplary claim of the 110 Patent are set forth in Exhibit KK. The descriptions in Exhibit KK are preliminary and based on publicly available information. Plaintiffs expect to further develop the evidence of infringement by these products and services after obtaining discovery from Facebook in the course of this action.
- 122. Facebook's acts of infringement cause damage to Plaintiffs, and Plaintiffs are entitled to recover from Facebook damages sustained as a result of Facebook's infringement of the Asserted Patents, but in no event less than a reasonable royalty.
 - 123. Facebook's acts of infringement, unless restrained and enjoined, will cause

irreparable injury and damage to Plaintiffs for which there is no adequate remedy at law.

124. Facebook's infringement of the Asserted Patents is exceptional and entitles Plaintiffs to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

COUNT V FOR PATENT INFRINGEMENT OF U.S. PATENT NO. 8,624,883 BY <u>INSTAGRAM</u>

- 125. Plaintiffs repeat and reallege the allegations in paragraphs 1-87 as though fully set forth herein.
- 126. Upon information and belief, Instagram has directly infringed at least Claim 1 of the 883 Patent in violation of 35 U.S.C. § 271(a), either literally or under the doctrine of equivalents, by, among other things: making, using, offering for sale, selling, and/or importing into the United States the Instagram App, including Instagram Posts, Instagram Stories, Instagram Live, and Instagram Reels features, and IGTV, or components thereof; and/or by performing in the United States without authority every step of the patented inventions. For example, Instagram directly infringes at least Claim 1 of the 883 Patent when it combines its software with mobile device hardware and software by installing the Instagram App, and when it operates the Instagram App, such as for internal testing and development and for internal corporate communication, thereby making and using the infringing systems and practicing the claimed methods of the 883 Patent.
- 127. On information and belief, Instagram has induced and continues to induce infringement of claims of the 883 Patent pursuant to 35 U.S.C. § 271(b), including at least Claim 1, by encouraging its customers and other third parties to make and/or use the claimed systems, or perform the claimed methods, such as by installing and using the Instagram App on their mobile devices, as described above. Such performance of the claimed methods, or making and/or use of the claimed systems, constitutes infringement, literally or under the doctrine of equivalents, of one

or more claims of the 883 Patent by such third parties. Instagram's acts of encouragement include: providing and intending that third parties use the Instagram App, including the Instagram Posts, Instagram Stories, Instagram Live, and Instagram Reels features, and IGTV, to capture, manipulate, display, and share still and moving images in a manner that infringes, and providing instructions to do so¹⁷; purposefully and voluntarily placing the Instagram App, including the Instagram Posts, Instagram Stories, Instagram Live, and Instagram Reels features, and IGTV, in the stream of commerce with the expectation that it will be used by customers in the District of Delaware; providing other components of the system that enable and/or make use of the Instagram App, including Instagram Posts, Instagram Stories, Instagram Live, and Instagram Reels features and IGTV, including, e.g., servers and other network equipment; advertising the Instagram App, including Instagram Posts, Instagram Stories, Instagram Live, and Instagram Reels features and IGTV, through its own and third-party media platforms, including websites and television.¹⁸ Furthermore, Instagram has actual knowledge of how the Instagram App, including Instagram Posts, Instagram Stories, Instagram Live, and Instagram Reels features, and IGTV work, including how they are used by customers. Instagram has undertaken these acts of encouragement with the specific intent that end-users use such Accused Products as intended by Instagram in a manner that infringes the asserted claims of the 883 Patent.

128. Instagram proceeded in this manner despite its actual knowledge of the 883 Patent and that the specific actions it is actively inducing on the part of its customers and other third

¹⁷ See, e.g., "Introducing Face Filters & More on Instagram," https://about.instagram.com/blog/announcements/introducing-face-filters-and-more-on-instagram; "Introducing Photo and Video Replies to Stories," https://about.instagram.com/blog/announcements/introducing-instagram-reels-announcement.

¹⁸ "Instagram: We Make Today," https://www.youtube.com/watch?v=AAVei-_6itA.

parties constitute infringement of the 883 Patent as of the date of the filing of this Complaint. At the very least, because Instagram is on notice of the 883 Patent and the accused infringement, as of the date of the filing of this Complaint, it is willfully blind regarding the infringement it has induced and continues to induce.

- 129. On information and belief, Instagram has contributed and continues to contribute to the infringement of the 883 Patent, including infringement of at least Claim 1, pursuant to 35 U.S.C. § 271(c) by, without authority, selling and/or offering to sell within the United States, importing, and/or supplying material components of the claimed system for capturing, comparing, displaying, and/or manipulating images, such as its client software for use with mobile devices, and servers and other network infrastructure equipment that enables customers to engage in capturing, comparing, displaying, and/or manipulating images. The Instagram App, including Instagram Posts, Instagram Stories, Instagram Live, and Instagram Reels features and IGTV, contain software components that are especially made for or adapted for use to infringe the claims of the 883 Patent, and are not a staple article of commerce and are not suitable for substantial noninfringing use. When, for example, the Instagram App, including Instagram Posts, Instagram Stories, Instagram Live, and Instagram Reels features and IGTV, and servers and other network infrastructure equipment are used to enable capturing, comparing, displaying, and/or manipulating images, the claimed system is completed or the claimed method is performed, thereby infringing, literally or under the doctrine of equivalents, one of more claims of the 883 Patent. On information and belief, Instagram knows, at least as of the date of this Complaint, that these components are especially made and/or especially adapted for use in infringing the 883 Patent.
- 130. Non-limiting examples of how the Instagram App, including Instagram Posts, Instagram Stories, Instagram Live, and Instagram Reels features and IGTV, infringes at least the

exemplary claim of the 883 Patent are set forth in Exhibits J-N. The descriptions in Exhibits J-N are preliminary and based on publicly available information. Plaintiffs expect to further develop the evidence of infringement by the Instagram App after obtaining discovery from Instagram in the course of this action.

- 131. Instagram's acts of infringement cause damage to Plaintiffs, and Plaintiffs are entitled to recover from Instagram damages sustained as a result of Instagram's infringement of the 883 Patent but in no event less than a reasonable royalty.
- 132. Instagram's acts of infringement, unless restrained and enjoined, will cause irreparable injury and damage to Plaintiffs for which there is no adequate remedy at law.
- 133. Instagram's infringement of the 883 Patent is exceptional and entitles Plaintiffs to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

COUNT VI FOR PATENT INFRINGEMENT OF U.S. PATENT NO. 7,948,481 BY <u>INSTAGRAM</u>

- 134. Plaintiffs repeats and realleges the allegations in paragraphs 1-87 as though fully set forth herein.
- 135. Upon information and belief, Instagram has directly infringed at least Claim 1 of the 481 Patent in violation of 35 U.S.C. § 271(a), either literally or under the doctrine of equivalents, by, among other things: making, using, offering for sale, selling, and/or importing into the United States the Instagram App, including Instagram Posts, Instagram Stories, Instagram Live, and Instagram Reels features and IGTV, or components thereof; and/or by performing in the United States without authority every step of the patented inventions. For example, Instagram directly infringes at least Claim 1 of the 481 Patent when it combines its software with mobile device hardware and software by installing the Instagram App, and when it operates the Instagram App, such as for internal testing and development and for internal corporate communication,

thereby making and using the infringing systems and practicing the claimed methods of the 481 Patent.

On information and belief, Facebook has induced and continues to induce 136. infringement of claims of the 481 Patent pursuant to 35 U.S.C. § 271(b), including at least Claim 1, by encouraging its customers and other third parties to make and/or use the claimed systems or performing the claimed methods, such as by installing and using the Instagram App, including Instagram Posts, Instagram Stories, Instagram Live, and Instagram Reels features and IGTV, on their mobile devices or using the Instagram App, including Instagram Posts, Instagram Stories, Instagram Live, and Instagram Reels features and IGTV, to perform each step of the patented inventions. Such making and/or use of the claimed systems, or performance of the claimed methods, constitutes infringement, literally or under the doctrine of equivalents, of one or more claims of the 481 Patent by such third parties. Instagram's acts of encouragement include: providing and intending that third parties use the Instagram App, including the Instagram Posts, Instagram Stories, Instagram Live, and Instagram Reels features and IGTV, to capture, manipulate, display, and share still and moving images in a manner that infringes, and providing instructions to do so¹⁹; purposefully and voluntarily placing the Instagram App, including the Instagram Posts, Instagram Stories, Instagram Live, and Instagram Reels features and IGTV, in the stream of commerce with the expectation that it will be used by customers in the District of Delaware; providing other components of the system that enable and/or make use of the Instagram App

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https://about.instagram.com/blog/announcements/introducing-face-filters-and-more-on-instagram; "Introducing Photo and Video Replies to Stories,"

https://about.instagram.com/blog/announcements/introducing-photo-and-video-replies-to-stories,

¹⁹ See, e.g., "Introducing Face Filters & More on Instagram,"

[&]quot;Introducing Instagram Reels," https://about.instagram.com/blog/announcements/introducing-instagram-reels-announcement.

including, *e.g.*, servers and other network equipment; advertising the Instagram App through its own and third-party media platforms, including websites and television. ²⁰ Furthermore, Instagram has actual knowledge of how the Instagram App, including Instagram Posts, Instagram Stories, Instagram Live, and Instagram Reels features and IGTV, work, including how they are used by customers. Instagram has undertaken these acts of encouragement with the specific intent that endusers use such Accused Products as intended by Instagram in a manner that infringes the asserted claims of the 481 Patent.

137. Instagram proceeded in this manner despite its actual knowledge of the 481 Patent and that the specific actions it is actively inducing on the part of its customers and other third parties constitute infringement of the 481 Patent as of the date of the filing of this Complaint. At the very least, because Instagram is on notice of the 481 Patent and the accused infringement, as of the date of the filing of this Complaint, it is willfully blind regarding the infringement it has induced and continues to induce.

138. On information and belief, Instagram has contributed and continues to contribute to the infringement of the 481 Patent, including infringement of at least Claim 1, pursuant to 35 U.S.C. § 271(c) by, without authority, selling and/or offering to sell within the United States, importing, and/or supplying material components of the claimed system for capturing, comparing, displaying, and/or manipulating images, such as its client software for use with mobile devices, and servers and other network infrastructure equipment that enables customers to engage in capturing, comparing, displaying, and/or manipulating images. The Instagram App, including Instagram Posts, Instagram Stories, Instagram Live, and Instagram Reels features and IGTV, contain software components that are especially made for or adapted for use to infringe the claims

²⁰ "Instagram: We Make Today," https://www.youtube.com/watch?v=AAVei-_6itA.

of the 481 Patent, and are not a staple article of commerce and are not suitable for substantial non-infringing use. When, for example, the Instagram App, including Instagram Posts, Instagram Stories, Instagram Live, and Instagram Reels features and IGTV, and servers and other network infrastructure equipment are used to enable capturing, comparing, displaying, and/or manipulating images, the claimed system is completed or the claimed method is performed, thereby infringing, literally or under the doctrine of equivalents, one of more claims of the 481 Patent. On information and belief, Instagram knows, at least as of the date of this Complaint, that these components are especially made and/or especially adapted for use in infringing the 481 Patent.

- 139. Non-limiting examples of how the Instagram App, including Instagram Posts, Instagram Stories, Instagram Live, and Instagram Reels features and IGTV, infringes at least the exemplary claim of the 481 Patent are set forth in Exhibits V-Z. The descriptions in Exhibits V-Z are preliminary and based on publicly available information. Plaintiffs expect to further develop the evidence of infringement by the Instagram App after obtaining discovery from Instagram in the course of this action.
- 140. Instagram's acts of infringement cause damage to Plaintiffs, and Plaintiffs are entitled to recover from Instagram damages sustained as a result of Instagram's infringement of the 481 Patent, but in no event less than a reasonable royalty.
- 141. Instagram's acts of infringement, unless restrained and enjoined, will cause irreparable injury and damage to Plaintiffs for which there is no adequate remedy at law.
- 142. Instagram's infringement of the 481 Patent is exceptional and entitles Plaintiffs to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

COUNT VII FOR PATENT INFRINGEMENT OF U.S. PATENT NO. 8,982,109 BY <u>INSTAGRAM</u>

143. Plaintiffs repeat and reallege the allegations in paragraphs 1-87 as though fully set

forth herein.

144. Upon information and belief, Facebook has directly infringed at least Claim 1 of the 109 Patent in violation of 35 U.S.C. § 271(a), either literally or under the doctrine of equivalents, by performing in the United States without authority every step of the patented invention using products, services, devices, systems, and/or components of systems that embody the patented invention, including but not limited to the to the Instagram App, including Instagram Posts, Instagram Stories, Instagram Live, and Instagram Reels features and IGTV, or components thereof. For example, Instagram directly infringes at least Claim 1 of the 109 Patent when its Instagram App software performs each element of the claimed methods, such as when it operates the Accused Products for internal testing and development and for internal corporate communication.

145. On information and belief, Instagram has induced and continues to induce infringement of claims of the 109 Patent pursuant to 35 U.S.C. § 271(b), including at least Claim 1, by encouraging its customers and other third parties to perform the claimed methods, such as by installing and using the Instagram App on their mobile devices, as described above. Such performance of the claimed methods constitutes infringement, literally or under the doctrine of equivalents, of one or more claims of the 109 Patent by such third parties, including Claim 1.

146. Instagram's acts of encouragement include: providing and intending that third parties use the Instagram App, including Instagram Posts, Instagram Stories, Instagram Live, and Instagram Reels features and IGTV, to capture, manipulate, display, and share still and moving images in a manner that infringes, and providing instructions to do so²¹; purposefully and

²¹ See, e.g., "Introducing Face Filters & More on Instagram," https://about.instagram.com/blog/announcements/introducing-face-filters-and-more-on-

voluntarily placing the Instagram App, including Instagram Posts, Instagram Stories, Instagram Live, and Instagram Reels features and IGT,V in the stream of commerce with the expectation that it will be used by customers in the District of Delaware; providing other components of the system that enable and/or make use of the Instagram App, including Instagram Posts, Instagram Stories, Instagram Live, and Instagram Reels features and IGTV, including, *e.g.*, servers and other network equipment; advertising the Instagram App, including Instagram Posts, Instagram Stories, and Instagram Reels features and IGTV, through its own and third-party media platforms, including websites and television. ²² Furthermore, Instagram has actual knowledge of how the Instagram App, including Instagram Posts, Instagram Stories, Instagram Live, and Instagram Reels features and IGTV, works, including how it is used by customers. Instagram has undertaken these acts of encouragement with the specific intent that end-users use such Accused Products as intended by Instagram in a manner that infringes the asserted claims of the 109 Patent.

- 147. Instagram proceeded in this manner despite its actual knowledge of the 109 Patent and that the specific actions it is actively inducing on the part of its customers and other third parties constitute infringement of the 109 Patent as of the date of the filing of this Complaint. At the very least, because Instagram is on notice of the 109 Patent and the accused infringement, as of the date of the filing of this Complaint, it is willfully blind regarding the infringement it has induced and continues to induce.
- 148. On information and belief, Instagram has contributed and continues to contribute to the infringement of the 109 Patent, including infringement of at least Claim 1, pursuant to 35

instagram; "Introducing Photo and Video Replies to Stories,"

 $[\]underline{https://about.instagram.com/blog/announcements/introducing-photo-and-video-replies-to-stories,}$

[&]quot;Introducing Instagram Reels," https://about.instagram.com/blog/announcements/introducing-instagram-reels-announcement.

²² "Instagram: We Make Today," https://www.youtube.com/watch?v=AAVei-_6itA.

U.S.C. § 271(c) by, without authority, selling and/or offering to sell within the United States, importing, and/or supplying material components of the claimed method, such as its client software for use with mobile devices, and servers and other network infrastructure equipment that enables customers to engage in capturing, comparing, displaying, and/or manipulating images. The Instagram App, including Instagram Posts, Instagram Stories, Instagram Live, and Instagram Reels features and IGTV, contain software components that are especially made for or adapted for use to infringe at least Claim 1 of the 109 Patent, and are not a staple article of commerce and are not suitable for substantial non-infringing use. When, for example, the Instagram App, including Instagram Posts, Instagram Stories, Instagram Live, and Instagram Reels features and IGTV, is used to enable capturing, manipulating, and/or resizing images, the claimed method is performed, thereby infringing, literally or under the doctrine of equivalents, one or more claims of the 109 Patent, including at least Claim 1. On information and belief, Instagram knows, at least as of the date of this Complaint, that these components are especially made and/or especially adapted for use in infringing the 109 Patent.

- 149. Non-limiting examples of how the Instagram App, including Instagram Posts, Instagram Stories, Instagram Live, and Instagram Reels features and IGTV, infringes at least the exemplary claim of the 109 Patent are set forth in Exhibits FF-JJ. The descriptions in Exhibits FF-JJ are preliminary and based on publicly available information. Plaintiffs expect to further develop the evidence of infringement by these products and services after obtaining discovery from Instagram in the course of this action.
- 150. Instagram's acts of infringement cause damage to Plaintiffs, and Plaintiffs are entitled to recover from Instagram damages sustained as a result of Instagram's infringement of the 109 Patent, but in no event less than a reasonable royalty.

- 151. Instagram's acts of infringement, unless restrained and enjoined, will cause irreparable injury and damage to Plaintiffs for which there is no adequate remedy at law.
- 152. Instagram's infringement of the 109 Patent is exceptional and entitles Plaintiffs to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

COUNT VIII FOR INFRINGEMENT OF U.S. PATENT NO. 8,624,883 BY WHATSAPP

- 153. Plaintiffs repeat and reallege the allegations in paragraphs 1-87 as though fully set forth herein.
- 154. Upon information and belief, WhatsApp has directly infringed at least Claim 1 of the 883 Patent in violation of 35 U.S.C. § 271(a), either literally or under the doctrine of equivalents, by, among other things: making, using, offering for sale, selling, and/or importing into the United States the WhatsApp App or components thereof. For example, WhatsApp directly infringes the claims of the 883 Patent when it combines its software with mobile device hardware and software by installing the WhatsApp App, and when it operates the WhatsApp App, such as for internal testing and development and for internal corporate communication, thereby making and using the infringing systems and practicing the claimed methods of the 883 Patent.
- 155. On information and belief, WhatsApp has induced and continues to induce infringement of claims of the 883 Patent pursuant to 35 U.S.C. § 271(b), including at least Claim 1, by encouraging its customers and other third parties to make and/or use the claimed systems, or perform the claimed methods, such as by installing and using the WhatsApp App on their mobile devices, as described above. Such performance of the claimed methods, or making and/or use of the claimed systems, constitutes infringement, literally or under the doctrine of equivalents, of one or more claims of the 883 Patent by such third parties. WhatsApp's acts of encouragement include: providing and intending that third parties use the WhatsApp App to capture, manipulate, display,

and share still and moving images in a manner that infringes, and providing instructions to do so²³; purposefully and voluntarily placing the WhatsApp App in the stream of commerce with the expectation that it will be used by customers in the District of Delaware; providing other components of the system that enable and/or make use of the WhatsApp App including, *e.g.*, servers and other network equipment; advertising the WhatsApp App through its own and third-party media platforms, including websites and television. Furthermore, WhatsApp has actual knowledge of how the WhatsApp App features work, including how they are used by customers. WhatsApp has undertaken these acts of encouragement with the specific intent that end-users use such Accused Products as intended by WhatsApp in a manner that infringes the asserted claims of the 883 Patent.

- 156. WhatsApp proceeded in this manner despite its actual knowledge of the 883 Patent and that the specific actions it is actively inducing on the part of its customers and other third parties constitute infringement of the 883 Patent as of the date of the filing of this Complaint. At the very least, because WhatsApp is on notice of the 883 Patent and the accused infringement, as of the date of the filing of this Complaint, it is willfully blind regarding the infringement it has induced and continues to induce.
- 157. On information and belief, WhatsApp has contributed and continues to contribute to the infringement of the 883 Patent, including infringement of at least Claim 1, pursuant to 35 U.S.C. § 271(c) by, without authority, selling and/or offering to sell within the United States, importing, and/or supplying material components of the claimed system for capturing, comparing, displaying, and/or manipulating images, such as its client software for use with mobile devices,

²³ "How to edit photos and videos," https://faq.whatsapp.com/iphone/chats/how-to-edit-photos-and-videos; "How to send media," https://faq.whatsapp.com/iphone/chats/how-to-send-media.

and servers and other network infrastructure equipment that enables customers to engage in capturing, comparing, displaying, and/or manipulating images. The WhatsApp App contains software components that are especially made for or adapted for use to infringe the claims of the 883 Patent, and are not a staple article of commerce and are not suitable for substantial non-infringing use. When, for example, the WhatsApp App, and servers and other network infrastructure equipment are used to enable capturing, comparing, displaying, and/or manipulating images, the claimed system is completed or the claimed method is performed, thereby infringing, literally or under the doctrine of equivalents, one of more claims of the 883 Patent, including Claim 1. On information and belief, WhatsApp knows, at least as of the date of this Complaint, that these components are especially made and/or especially adapted for use in infringing the 883 Patent.

- 158. Non-limiting examples of how the WhatsApp App infringes at least the exemplary claim of the 883 Patent are set forth in Exhibit O. The descriptions in Exhibit O are preliminary and based on publicly available information. Plaintiffs expect to further develop the evidence of infringement by the WhatsApp App after obtaining discovery from Instagram in the course of this action.
- 159. WhatsApp's acts of infringement cause damage to Plaintiffs, and Plaintiffs are entitled to recover from WhatsApp damages sustained as a result of WhatsApp's infringement of the 883 Patent, but in no event less than a reasonable royalty.
- 160. WhatsApp's acts of infringement, unless restrained and enjoined, will cause irreparable injury and damage to Plaintiffs for which there is no adequate remedy at law.
- 161. WhatsApp's infringement of the 883 Patent is exceptional and entitles Plaintiffs to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

COUNT IX FOR PATENT INFRINGEMENT OF U.S. PATENT NO. 7,948,481 BY WHATSAPP

- 162. Plaintiffs repeat and reallege the allegations in paragraphs 1-87 as though fully set forth herein.
- 163. Upon information and belief, WhatsApp has directly infringed at least Claim 1 of the 481 Patent in violation of 35 U.S.C. § 271(a), either literally or under the doctrine of equivalents, by, among other things: making, using, offering for sale, selling, and/or importing into the United States the WhatsApp App; and/or by performing in the United States without authority every step of the patented inventions. For example, WhatsApp directly infringes at least Claim 1 of the 481 Patent when it combines its software with mobile device hardware and software by installing the WhatsApp App, and when it operates the WhatsApp App, such as for internal testing and development and for internal corporate communication, thereby making and using the infringing systems and practicing the claimed methods of the 481 Patent.
- 164. On information and belief, WhatsApp has induced and continues to induce infringement of claims of the 481 Patent pursuant to 35 U.S.C. § 271(b), including at least Claim 1, by encouraging its customers and other third parties to make and/or use the claimed systems or performing the claimed methods, such as by installing and using the WhatsApp App on their mobile devices or using the WhatsApp App to perform each step of the patented inventions. Such making and/or use of the claimed systems, or performance of the claimed methods, constitutes infringement, literally or under the doctrine of equivalents, of one or more claims of the 481 Patent by such third parties. WhatsApp's acts of encouragement include: providing and intending that third parties use the WhatsApp to capture, manipulate, display, and share still and moving images

in a manner that infringes, and providing instructions to do so²⁴; purposefully and voluntarily placing the WhatsApp App in the stream of commerce with the expectation that it will be used by customers in the District of Delaware; providing other components of the system that enable and/or make use of the WhatsApp App including, *e.g.*, servers and other network equipment; advertising the WhatsApp App through its own and third-party media platforms, including websites and television. Furthermore, WhatsApp has actual knowledge of how the WhatsApp App features work, including how they are used by customers. WhatsApp has undertaken these acts of encouragement with the specific intent that end-users use such Accused Products as intended by WhatsApp in a manner that infringes the asserted claims of the 481 Patent.

165. WhatsApp proceeded in this manner despite its actual knowledge of the 481 Patent and that the specific actions it is actively inducing on the part of its customers and other third parties constitute infringement of the 481 Patent as of the date of the filing of this Complaint. At the very least, because WhatsApp is on notice of the 481 Patent and the accused infringement, as of the date of the filing of this Complaint, it is willfully blind regarding the infringement it has induced and continues to induce.

166. On information and belief, WhatsApp has contributed and continues to contribute to the infringement of the 481 Patent, including infringement of at least Claim 1, pursuant to 35 U.S.C. § 271(c) by, without authority, selling and/or offering to sell within the United States, importing, and/or supplying material components of the claimed system for capturing, comparing, displaying, and/or manipulating images, such as its client software for use with mobile devices, and servers and other network infrastructure equipment that enables customers to engage in

²⁴ "How to edit photos and videos," https://faq.whatsapp.com/iphone/chats/how-to-edit-photos-and-videos; "How to send media," https://faq.whatsapp.com/iphone/chats/how-to-send-media.

capturing, comparing, displaying, and/or manipulating images. The WhatsApp App contains software components that are especially made for or adapted for use to infringe the claims of the 481 Patent, and are not a staple article of commerce and are not suitable for substantial non-infringing use. When, for example, the WhatsApp App, and servers and other network infrastructure equipment are used to enable capturing, comparing, displaying, and/or manipulating images, the claimed system is completed or the claimed method is performed, thereby infringing, literally or under the doctrine of equivalents, one of more claims of the 481 Patent. On information and belief, WhatsApp knows, at least as of the date of this Complaint, that these components are especially made and/or especially adapted for use in infringing the 481 Patent.

- 167. Non-limiting examples of how the WhatsApp App infringes at least the exemplary claim of the 481 Patent are set forth in Exhibit AA. The descriptions in Exhibit AA are preliminary and based on publicly available information. Plaintiffs expect to further develop the evidence of infringement by the WhatsApp App after obtaining discovery from Instagram in the course of this action.
- 168. WhatsApp's acts of infringement cause damage to Plaintiffs, and Plaintiffs are entitled to recover from WhatsApp damages sustained as a result of WhatsApp's infringement of the 481 Patent, but in no event less than a reasonable royalty.
- 169. WhatsApp's acts of infringement, unless restrained and enjoined, will cause irreparable injury and damage to Plaintiffs for which there is no adequate remedy at law.
- 170. WhatsApp's infringement of the 481 Patent is exceptional and entitles Plaintiffs to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

JURY DEMAND

171. Plaintiffs respectfully demand a jury trial on all issues and claims so triable.

PRAYER FOR RELIEF

- 172. WHEREFORE, Plaintiffs respectfully request this Court enter judgment in its favor and grant the following relief against Facebook, Instagram, and WhatsApp:
 - a) Judgment that Facebook infringed and continues to infringe the Asserted Patents;
 - b) Judgment that Instagram infringed and continues to infringe the 883, 481, and 109 Patents;
 - c) Judgment that WhatsApp infringed and continues to infringe the 883 and 481 Patents;
 - d) Award Plaintiffs damages in an amount adequate to compensate Plaintiffs for the infringement of the Asserted Patents by Facebook, but in no event less than a reasonable royalty under 35 U.S.C. § 284;
 - e) Award Plaintiffs damages in an amount adequate to compensate Plaintiffs for the infringement of the 883, 481, and 109 Patents by Instagram, but in no event less than a reasonable royalty under 35 U.S.C. § 284;
 - f) Award Plaintiffs damages in an amount adequate to compensate Plaintiffs for the infringement of the 883 and 481 Patents by WhatsApp, but in no event less than a reasonable royalty under 35 U.S.C. § 284;
 - g) Award Plaintiffs pre-judgment and post-judgment interest to the full extent allowed under the law;
 - h) Award Plaintiffs costs;
 - i) Enter an order finding this to be an exceptional case and award Plaintiffs reasonable attorneys' fees pursuant to 35 U.S.C. § 285;
 - j) Enter a permanent injunction against Facebook, directors, shareholders,

agents, servants, employees, attorneys, all parent, subsidiary and affiliate corporations, their successors in interest and assigns, and all other entities and individuals acting in concert with it or on its behalf, including customers, from making, importing, using, offering for sale, and/or selling any product or service falling within the scope of any claim of the Asserted Patents or otherwise infringing or contributing to or inducing infringement of any claim of the Asserted Patents;

- k) Enter a permanent injunction against Instagram, directors, shareholders, agents, servants, employees, attorneys, all parent, subsidiary and affiliate corporations, their successors in interest and assigns, and all other entities and individuals acting in concert with it or on its behalf, including customers, from making, importing, using, offering for sale, and/or selling any product or service falling within the scope of any claim of the 883, 481, or 109 Patents or otherwise infringing or contributing to or inducing infringement of any claim of the 883, 481, or 109 Patents;
- l) Enter a permanent injunction against WhatsApp, directors, shareholders, agents, servants, employees, attorneys, all parent, subsidiary and affiliate corporations, their successors in interest and assigns, and all other entities and individuals acting in concert with it or on its behalf, including customers, from making, importing, using, offering for sale, and/or selling any product or service falling within the scope of any claim of the 883 or 481 Patents or otherwise infringing or contributing to or inducing infringement of any claim of the 883 or 481 Patents;
 - m) Award, in lieu of an injunction, a compulsory ongoing royalty;
 - n) Order and accounting of damages; and
 - o) Award such other relief as the Court may deem appropriate and just under

the circumstances.

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