

Filed on behalf of: Sanderling Management Ltd.

Filed: December 28, 2022

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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SNAP INC.,  
Petitioner,

v.

SANDERLING MANAGEMENT LTD.,  
Patent Owner.

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Case IPR2021-00780  
U.S. Patent No. 10,108,986 B2

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**SANDERLING MANAGEMENT LTD.'S  
NOTICE OF APPEAL**

Director of the United States Patent and Trademark Office  
c/o Office of the General Counsel  
P.O. Box 1450  
Alexandria, VA 22313-1450

Notice is hereby given that Sanderling Management Ltd. appeals to the United States Court of Appeals for the Federal Circuit from the Final Written Decision and Judgment (Paper 39) in IPR2021-00780 entered on October 31, 2022, and from all underlying findings, determinations, orders, decisions, rulings, and opinions to that decision. A copy of the Final Written Decision and Judgment is attached hereto.

A copy of this Notice of Appeal is being concurrently filed with the Patent Trial and Appeal Board and Director of the U.S. Patent and Trademark Office. In addition, this Notice of Appeal is being filed with the Clerk's Office for the U.S. Court of Appeals for the Federal Circuit.

December 28, 2022

Respectfully submitted,

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## CERTIFICATE OF SERVICE

The undersigned certifies that, in addition to being filed electronically through Patent Trial and Appeal Board End to End (PTAB E2E), the original version of this Notice of Appeal was served via USPS Priority Mail Express on December 28, 2022 with the Director of the United States Patent and Trademark Office, at the following address:

Director of the United States Patent and Trademark Office  
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The undersigned also certifies that a copy of this Notice of Appeal was served on Petitioner by causing it to be sent by email to Petitioner's counsel at the following email address:

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December 28, 2022

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IPR2021-00780  
Patent 10,108,986 B2

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Before BART A. GERSTENBLITH, ERIC C. JESCHKE, and  
RICHARD H. MARSCHALL, *Administrative Patent Judges*.

JESCHKE, *Administrative Patent Judge*.

JUDGMENT  
Final Written Decision  
Determining All Challenged Claims Unpatentable  
*35 U.S.C. § 318(a)*

## I. BACKGROUND

Petitioner, Snap Inc., challenges claims 1, 2, 4–6, 8–16, 18, 19, 21–23, and 25–33 (the “challenged claims”) of U.S. Patent No. 10,108,986 B2 (Ex. 1001, “the ’986 patent”), which is assigned to Patent Owner, Sanderling Management Ltd. We have jurisdiction under 35 U.S.C. § 6, and we issue this Final Written Decision under 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons below, we conclude that Petitioner has proven, by a preponderance of the evidence, the unpatentability of claims 1, 2, 4–6, 8–16, 18, 19, 21–23, and 25–33 of the ’986 patent.

### *A. Procedural History*

Petitioner filed a Petition seeking *inter partes* review of the challenged claims. Paper 2 (“Pet.”). Patent Owner filed a Preliminary Response. Paper 16. Upon review of the arguments and supporting evidence, we instituted an *inter partes* review of all claims and grounds asserted in the Petition. Paper 20 (“Decision on Institution” or “Dec. Inst.”).

After institution, Patent Owner filed a Patent Owner Response (Paper 27, “PO Resp.”), Petitioner filed a Reply in support of the Petition (Paper 30, “Pet. Reply”), and Patent Owner filed a Sur-reply to Petitioner’s Reply (Paper 36, “PO Sur-reply”).

Petitioner relies on the declaration testimony of Mr. Kenneth Parulski (1) filed with the Petition (Ex. 1003 (“Parulski Pet. Decl.”)), (2) in a Supplemental Declaration filed on April 30, 2021 (Ex. 1076), and (3) filed with the Reply (Ex. 1078 (“Parulski Reply Decl.”)). An oral argument in this proceeding was held on September 1, 2022, and a copy of the transcript was entered into the record. Paper 38.

*B. Related Proceedings*

The parties identify a proceeding in the U.S. District Court for the Central District of California involving the '986 patent: *Sanderling Management Ltd. v. Snap Inc.*, No. 2:21-cv-02324-GW-JC (C.D. Cal.), transferred from No. 1:20-cv-04627 (N.D. Ill.), filed August 6, 2020. Pet. 82; Paper 6 (Patent Owner Mandatory Notices) at 2. The District Court entered final judgment against Patent Owner on July 21, 2021. *See* Paper 12 (Petitioner's Updated Mandatory Notices) at 1. Patent Owner has filed a notice of appeal to the United States Court of Appeals for the Federal Circuit. *See id.*

Petitioner also filed petitions for *inter partes* review of (1) claims 1–12 of the U.S. Patent No. 9,355,412 B2 (“the '412 patent”) in IPR2021-00778, (2) claims 1–11 of U.S. Patent No. 9,639,866 B2 (the '866 patent”) in IPR2021-00779, and (3) claims 1, 3, 7, 17, 18, 20, 24, and 34 of the '986 patent in IPR2021-00781. *See* IPR2021-00778, Paper 2; IPR2021-00779, Paper 2; IPR2021-00781, Paper 2. Concurrent with this Decision, the Board issued final written decisions in all three related proceedings.

*C. The '986 Patent*

The '986 patent “relates to promotional content distribution and, more specifically, but not exclusively, to systems, methods and a computer program product for dynamic promotional layout and image processing functions management and/or distribution.” Ex. 1001, 1:25–29.

Figure 7 is reproduced below:

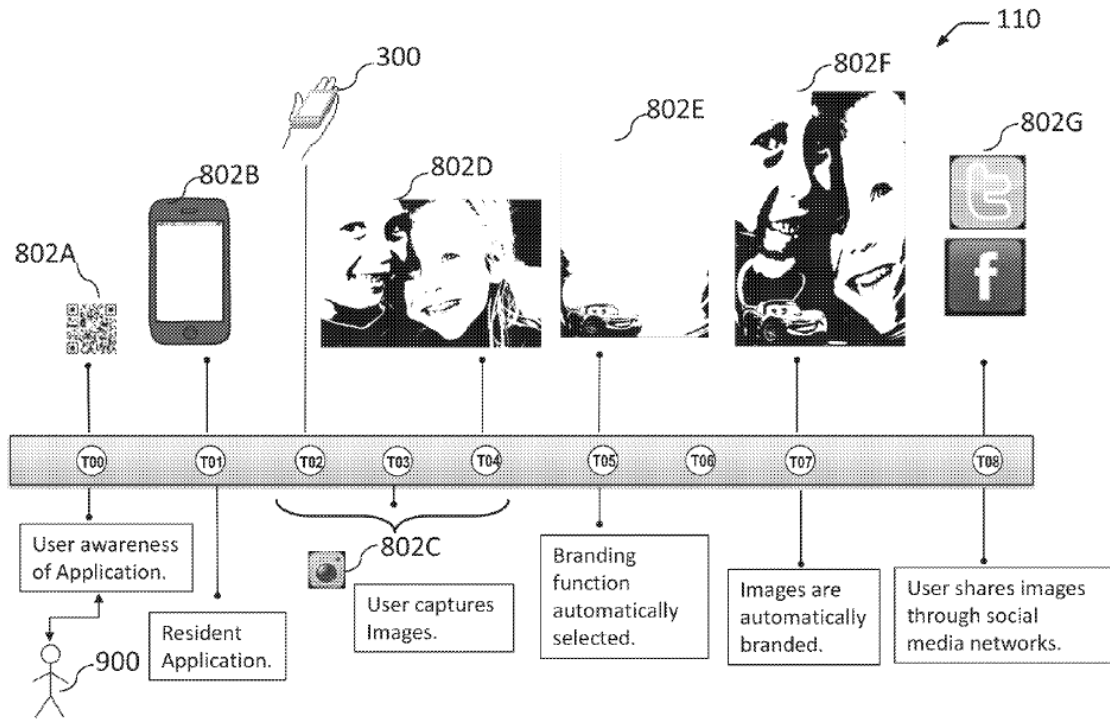


FIG. 7

Figure 7 is a “flowchart illustrating an exemplary sequence of events occurring during a creation of a branded digital image on a client terminal.” Ex. 1001, 5:29–32. At T00, on the left, end user 900 becomes aware of a resident application via quick response (“QR”) code 802A. *See id.* at 15:31–35. Then, at T01, end user 900 downloads the resident application to a client terminal 300. *Id.* at 15:36–37. Next, at T02 through T04, end user 900 uses client terminal 300 and integrated image sensor 802C to capture one or more digital images 802D. *See id.* at 15:38–40.

At T05, branding function 802E is selected, and then, at T07, the digital images are branded to create branded images 802F. *See Ex. 1001*, 15:41–46. One example of a branding function is adding an icon or altering the digital image layout. *See id.* at 6:7–11. Finally, at T08, end user 900

may share the branded images on social networks 802G. *See id.* at 15:47–51. In addition to branding, other image processing functions may be selected to “improve the digital image sharpness, lighting, contrast and/or improve focus of one or more subjects,” or provide “de blurring, color correction, auto focus, fill flash, cropping, de motion blurring, black and white, sepia, antique, overlay, pinch, zoom, Gaussian smoothing, rotation and/or the like.” *Id.* at 16:47–17:3.

Figure 8 is reproduced below:

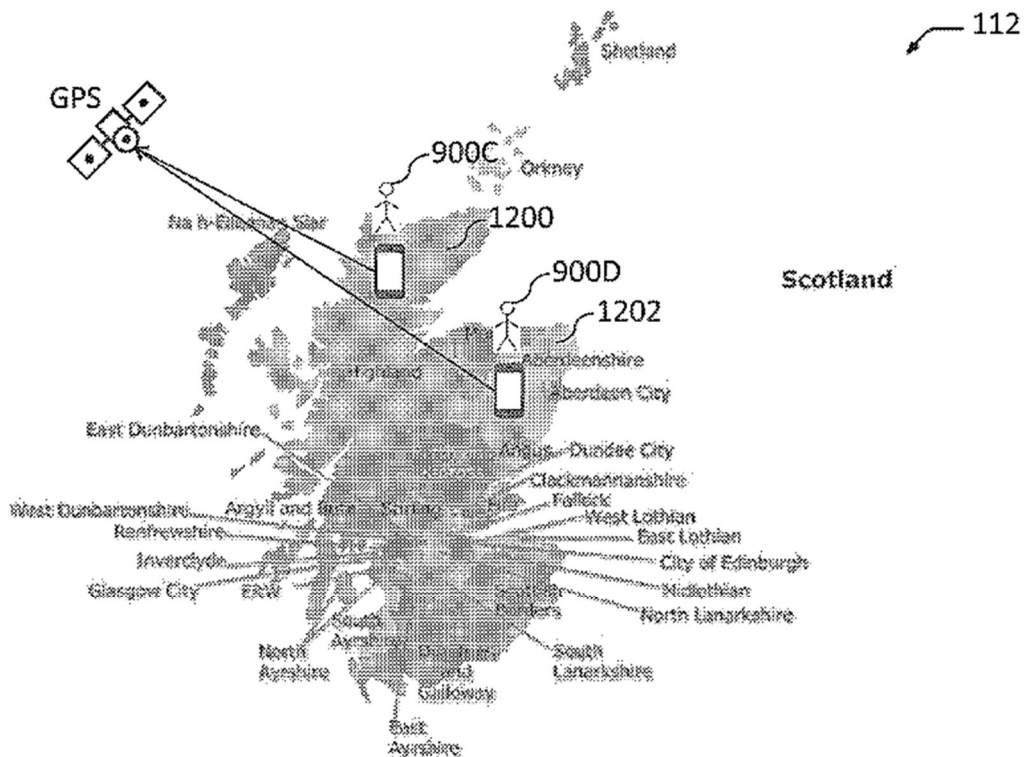


FIG. 8

Figure 8 “illustrates how end user information, such as a location, may be used in order to distribute a personalized branded image function.” Ex. 1001, 5:33–36. The disclosed system “may utilize geo-localized information in order to manage a campaign that targets end users based on



their location.” *Id.* at 15:56–58. For instance, with reference to Figure 8, the ’986 patent discloses that system 100 “determines that a first end user 900C is located at Highland 1200 in Scotland and that a second end user 900[D] is located at Aberdeenshire 1202 also in Scotland.”<sup>1</sup> *Id.* at 15:66–16:2.

*D. Challenged Claims*

Petitioner challenges claims 1, 2, 4–6, 8–16, 18, 19, 21–23, and 25–33, of which claims 1 and 18 are independent. Independent claim 1 is reproduced below, with alphanumeric designations added to identify each clause:

1. [1a] A computerized method of distributing a digital media content processing function, the computerized method comprising:

[1b] accessing at at [sic] least one server having at least one hardware processor one or more digital media content processing functions, each of the digital media content processing functions associated with at least one distribution rule defining a sensor data condition;

[1c] receiving, over a network, sensor data from each of a plurality of mobile devices, wherein the sensor data is determined according to outputs of at least one sensor of each of the plurality of mobile devices; and

[1d] distributing, over the network, at least one of the digital media content processing functions to at least one of the plurality of mobile devices, based on a match between the sensor data condition defined by the at least one distribution rule associated with the at least one digital media content processing function and the sensor data of the at least one mobile device;

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<sup>1</sup> Throughout this Decision, we omit any bold emphasis of reference numerals and claim numbers in quotations from the ’986 patent and from prior art references.

[1e] wherein the at least one digital media content processing function is configured to be used by an application executed on the at least one mobile device to process a digital media content to create an output digital media content.

Ex. 1001, 23:44–67.<sup>2</sup>

*E. Instituted Ground of Unpatentability*

We instituted *inter partes* review based on the following ground:

Claim(s) Challenged	35 U.S.C. § <sup>3</sup>	Reference(s)/Basis
1, 2, 4–6, 8–16, 18, 19, 21–23, 25–33	103(a)	Hogeg <sup>4</sup>

## II. DISCUSSION

*A. Legal Standards*

To prevail in its challenges, Petitioner must prove unpatentability by a preponderance of the evidence. 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d).

“Petitioner has the burden from the onset to show with particularity why the

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<sup>2</sup> We adopt and apply below Petitioner’s designations for the elements of the challenged claims. *See* Pet. 84–90 (showing alphanumeric designations for the language in the challenged claims).

<sup>3</sup> The Leahy-Smith America Invents Act (“AIA”) included revisions to 35 U.S.C. § 103 that became effective on March 16, 2013. Pub. L. No. 112-29, §§ 3(c), 3(n)(1), 125 Stat. 284, 287, 293 (2011). Because Petitioner appears to contend that the challenged claims of the ’986 patent have an effective filing date before March 16, 2013, we apply the pre-AIA version of this statute. *See* Pet. 13 n.1 (“Pre-AIA 35 U.S.C. §102 applies. MPEP §2159.02.”). We would reach the same outcome, however, under the AIA version of the statute.

<sup>4</sup> US 2014/0173424 A1, published June 19, 2014 (Ex. 1004, “Hogeg”). Petitioner assert that Hogeg is prior art to the ’986 patent under pre-AIA 35 U.S.C. § 102(e)(1). *See* Pet. 13, 79–80. Patent Owner does not dispute this position and we find it supported by the record.

patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (requiring *inter partes* review petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”)). This burden of persuasion never shifts to Patent Owner. *See Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015) (discussing the burdens of proof in an *inter partes* review).

Petitioner relies on obviousness in its challenge to the claims. A claim is unpatentable as obvious under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) when in evidence, so-called secondary considerations.<sup>5</sup> *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

*B. The Level of Ordinary Skill in the Art*

The level of ordinary skill in the art is “a prism or lens” through which we view the prior art and the claimed invention. *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). The person of ordinary skill in the art is a hypothetical person presumed to have known the relevant art at the time of the invention. *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995). In

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<sup>5</sup> The parties do not introduce or rely upon any objective indicia of nonobviousness.

determining the level of ordinary skill in the art, we may consider certain factors, including the “type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field.” *Id.*

Petitioner contends, with accompanying declaration testimony, that a person having ordinary skill in the art at the time of the alleged invention “would have had at least a bachelor’s degree, or the equivalent, in electrical engineering, computer science, or a related field, and 2–3 years of experience in research, design, or development of mobile imaging systems and related hardware, software, and firmware, or equivalent experience.” Pet. 19. According to Petitioner, “[a] person with less education but more relevant practical experience, or more education and less experience, may also meet this standard.” Pet. 19–20 (citing Parulski Pet. Decl. ¶¶ 173–174).

Prior to institution, Patent Owner did not address or dispute Petitioner’s proposed definition of the level of ordinary skill in the art. In the Decision on Institution, we adopted Petitioner’s proposed definition, stating that it “appear[ed] consistent with the record at th[at] stage of the proceeding, including the prior art.” Dec. Inst. 26. In the Response, Patent Owner also does not dispute Petitioner’s proposed definition of the level of ordinary skill in the art. *See* PO Resp 10–11. We maintain the definition of the level of ordinary skill in the art adopted as of institution.

### *C. Claim Construction*

In *inter partes* reviews, the Board interprets claim language using the same claim construction standard that would be used in a civil action under 35 U.S.C. § 282(b), as described in *Phillips v. AWH Corp.*, 415 F.3d 1303

(Fed. Cir. 2005) (en banc). *See* 37 C.F.R. § 42.100(b). Under that standard, we generally give claim terms their ordinary and customary meaning, as would be understood by a person of ordinary skill in the art at the time of the invention, in light of the language of the claims, the specification, and the prosecution history. *See Phillips*, 415 F.3d at 1313–14. Although extrinsic evidence, when available, may also be useful when construing claim terms under this standard, extrinsic evidence should be considered in the context of the intrinsic evidence. *See id.* at 1317–19.

Petitioner discusses the term “digital media content processing function” in claims 1 and 18 (Pet. 21–23), but states that “the Board needn’t construe [that term] to determine patentability” (Pet. 23). We did not construe that term in the Decision on Institution (Dec. Inst. 26–27), and Patent Owner takes the position in the Response that that term still does not need construction (PO Resp. 11). We continue to agree with both parties that “digital media content processing function” need not be construed because doing so would not change the outcome of the analysis below. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (stating that “we need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

In the Response, Patent Owner argues that the term “distribution rule”—in elements 1b and 18c—requires construction. PO Resp. 11. According to Patent Owner, “distribution rule” means “a rule used in determining how to target a group of end-users.” *Id.* at 14. Patent Owner argues that the patentee, in column 6 and the Abstract, acted as his own

lexicographer and defined the term in the manner proposed. *Id.* at 13 (quoting Ex. 1001, 6:13–19 & code (57)).

Petitioner responds that Patent Owner’s proposed definition is “clipped” from the cited passage, which reads in full:

A distribution rule is ***a rule used in determining how to target a group of end-users***, for instance, a rule that determines that only a group of end users having certain characteristics and/or match a certain requirement, for example currently watching a specific content via their client terminal, for example a soccer game, are associated with the image branding function.

Ex. 1001, 6:13–19 (emphasis added by Petitioner), *quoted at* Pet. Reply 3–4. According to Petitioner, this passage is not “clear definitional language,” and if it is, “the language [Patent Owner] clips is incomplete.” Pet. Reply 4. Petitioner contends that “distribution rule” should be “given its plain and ordinary meaning as set forth in the Petition, *e.g.*, ‘a set of conditions defining a function or an action (*e.g.*, a rule) for selecting and distributing visual content editing functions.’” Pet. Reply 4–5 (citing Parulski Pet. Decl. ¶¶ 218–220; Parulski Reply Decl. ¶¶ 16–18).

We are persuaded by Patent Owner’s position. As an initial matter, however, we do not agree with Patent Owner that Petitioner’s construction as stated in the Reply is untimely. *See* PO Sur-reply 5 (arguing that Petitioner’s “new evidence and arguments on claim construction are untimely and should be disregarded”). Indeed, Petitioner’s proposed construction for “distribution rule” in the Reply is taken *verbatim* from page 33 of the Petition. *See* Pet. Reply 4–5 (quoting, without citation, Pet. 33).

We agree with Patent Owner, however, that the patentee acted as his own lexicographer with the passage from column 6 discussed by the parties.

Indeed, the sentence at issue begins with the exact same term—“distribution rule”—and continues by explaining what that term “is.” *See* Ex. 1001, 6:13–14 (“A *distribution rule* is a rule used in determining how to target a group of end-users . . . .” (emphasis added)); *see also* Ex. 1001, code (57) (the Abstract, providing that “[a] distribution rule is used to target a group of end users . . . .”). As argued by Patent Owner, this is sufficiently clear language to express an intent by the patentee to define that term. *See* PO Sur-reply 6 (citing *Sinorgchem Co., Shandong v. Int’l Trade Comm’n*, 511 F.3d 1132, 1136 (Fed. Cir. 2007) (stating that “the word ‘is,’ again a term used here in the specification, may ‘signify that a patentee is serving as its own lexicographer”)); *see also* *Luminara Worldwide, LLC v. Liown Elecs. Co.*, 814 F.3d 1343, 1353 (Fed. Cir. 2016) (“To act as a lexicographer, a patentee must ‘clearly set forth a definition of the disputed claim term’ and ‘clearly express an intent to redefine the term.’” (quoting *Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012))).

Further, we disagree with Petitioner’s assertion that the definition should include the *rest* of the passage in column 6 (i.e., the language from “for instance” to the end of the sentence). *See* Pet. Reply 4. By beginning with “for instance,” the express language of that portion of the sentence makes clear that it merely provides *examples* of “rule[s]” that fall within the definition previously provided in the sentence, as acknowledged by Petitioner and Mr. Parulski. *Cf. id.* (“The language following that clipped by [Patent Owner] (‘for instance . . .’) is what provides ‘distribution rules’ examples.”); Parulski Reply Decl. ¶ 15 (“The language following that identified by [Patent Owner] (beginning with ‘for instance, a rule . . .’)”).

provides examples of what a ‘distribution rule’ may be.”<sup>6</sup> For these reasons, we construe “distribution rule” in elements 1b and 18c in the manner proposed by Patent Owner—“a rule used in determining how to target a group of end-users.”

*D. Asserted Obviousness of Claims 1, 2, 4–6, 8–16, 18, 19, 21–23, and 25–33 Based on Hogege*

Petitioner asserts that claims 1, 2, 4–6, 8–16, 18, 19, 21–23, and 25–33 of the ’986 patent would have been obvious under 35 U.S.C. § 103(a) based on Hogege. Pet. 11, 24–79; Pet. Reply 7–19. Patent Owner provides arguments specifically addressing this asserted ground. PO Resp. 14–19; PO Sur-reply 8–11. We first summarize aspects of Hogege and then address the parties’ specific contentions in turn.

*1. Hogege*

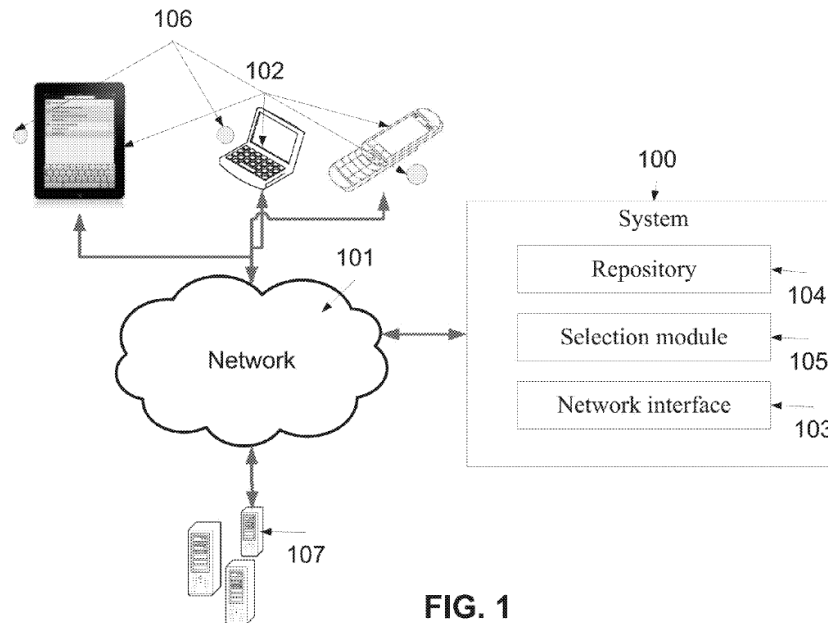
Hogege “relates to image processing” and to “systems and methods of selectively adjusting visual content on client terminals.” Ex. 1004 ¶ 1.

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<sup>6</sup> Unlike the situation in *Sinorgchem*, the language following “for instance” here is properly viewed as merely exemplary, rather than *further* definitional language. *See Sinorgchem*, 511 F.3d at 1136–38.



Figure 1 of Hogeg is reproduced below:



**FIG. 1**

Figure 1 is “a schematic illustration of a system, which is connected via a communication network, to client terminals and provides thereto a list of functions for editing visual content.” Ex. 1004 ¶ 33. As shown in Figure 1, system 100 is connected, via communication network 101 (such as the Internet) to various client terminals 102, each of which host a local module 106. *Id.* ¶¶ 40, 44. Hogeg discloses that system 100 may provide client terminals 102 with “a list of functions for editing visual content, such [as] one or more images or video files.” *Id.* ¶ 40. Using a graphical user interface (GUI), a user can edit images or video on client terminal 102 using the functions provided. *Id.* ¶¶ 40, 41, 44.

Figures 2A and 2B are reproduced below:



**FIG. 2A**



**FIG. 2B**

Figures 2A and 2B “are sets of images where each set includes an original image, a color filtered image, and a color filtered image with an overlay addition of the Nike™ logo.” Ex. 1004 ¶ 34. Hoge discloses possible characteristics of the functions using these Figures:

The generated functions may be customized overlays with selected graphic, color filter with selected colors, and/or any other filters which are planned by the user. For example, each one of FIGS. 2A and 2B depicts a set of images the first, marked with (1) is the original, the second, marked with (2) is when a

color filter is applied, and the third, marked with (3) is when a color filter is applied with an overlay addition of the Nike™ logo.

Ex. 1004 ¶ 45.

Figure 3 is reproduced below:

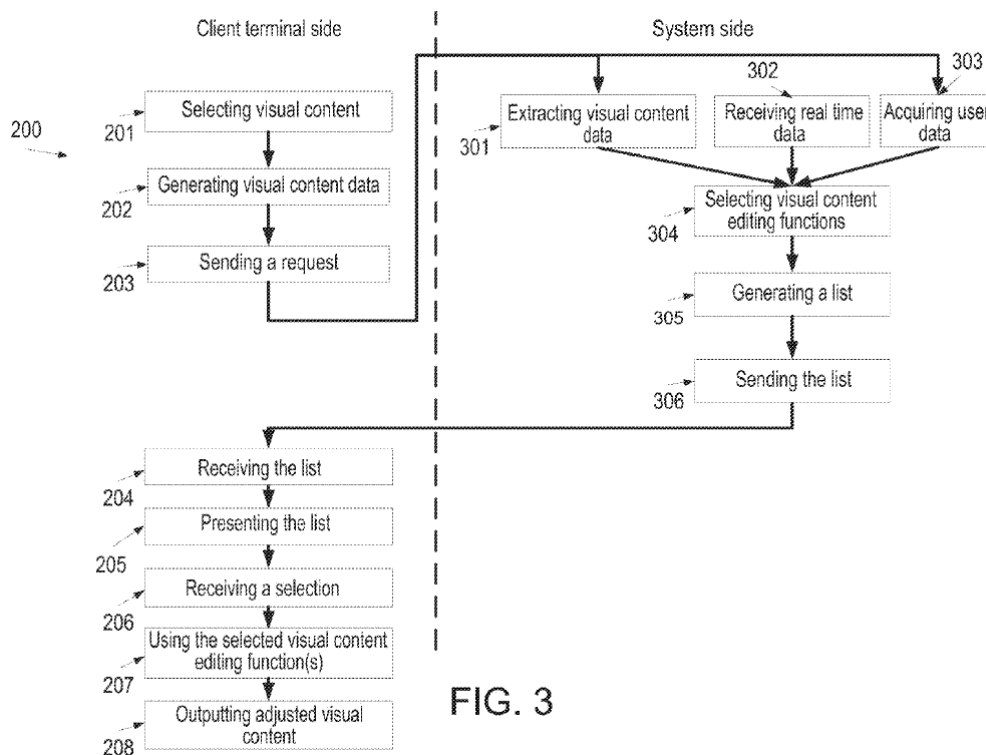


FIG. 3

Figure 3 is “a flowchart of a method for processing visual content using one or more visual content editing functions.” Ex. 1004 ¶ 35. After a user selects visual content on the client terminal side (at step 201), the visual content, which may include GPS data from the terminal, is generated (at step 202). *Id.* ¶¶ 47–49. A request is then sent from the client terminal side (on the left of the dotted vertical line) to the system side (on the right of the dotted vertical line) (at step 203), which culminates in the selection of various “visual content editing functions” (at step 304), and the generation and sending of a list of those functions back to the client terminal (at steps 305 and 306). *Id.* ¶¶ 53–54, 75. If the visual content includes location data,

the visual content editing functions selected may be based on the location data. *Id.* ¶¶ 55–63, 73, 74. For example, “if the positional data is indicative that the visual content was captured in Australia, a visual content editing function which provides an overlay of the Australian flag and/or a sound overlay of the Australian anthem and/or Australian popular music may be selected.” *Id.* ¶ 58. After the client terminal receives and presents the list of visual content editing functions (at steps 204 and 205), a user selects and adjusts the content with the editing function (at steps 206 and 207) before outputting the adjusted content (at step 208). *Id.* ¶¶ 40, 76–79.

## 2. *Analysis*

### a. *Independent Claims 1 and 18*

For independent claims 1 and 18, Petitioner contends that Hogege, when modified as proposed, satisfies each limitation. Pet. 24–55 (claim 1), 69–75 (claim 18). To support its arguments, Petitioner identifies certain passages in Hogege, explains the significance of each passage with respect to the corresponding claim limitation, and articulates reasons to modify aspects of Hogege. *Id.* For each limitation of claims 1 and 18, Petitioner argues that Hogege discloses the limitation, and only relies expressly on obviousness as an alternative argument for certain limitations. *See, e.g., id.* at 30, 34 n.7, 40, 45, 52, 54–55, 74. Those alternative obviousness arguments are generally not in dispute, and we do not discuss them unless relevant to one of the disputed limitations below. We turn now to the parties’ contentions.

#### *(1) General Arguments as to the Claimed Inventions*

Patent Owner first presents several arguments as to why the processes of Hogege and the ’986 patent are “fundamentally different” and how they “offer different advantages.” PO Resp. 5–10. As to the allegedly different

processes, Patent Owner argues that “[t]he process and logic (temporal) flow of Hogege starts with and depends on user designation of content” and that “all steps of Hogege for identifying and providing editing functions must be performed each time the user selects an image or other content,” whereas, the ’986 patent “claims a method of using a distribution rule that targets a group of end-users in order to distribute image processing functions to end users based on the distribution rule defining a sensor data condition.” PO Resp. 5, 6.<sup>7</sup> As to the alleged different benefits, Patent Owner argues that Hogege “is simply not a workable solution for real-time large-scale marketing and promotional campaigns” and that,

[i]nstead of providing a tailored list of visual content editing functions to a user only after content is selected, as in Hogege, the ’986 patent is designed so that a brand manager, for example, can distribute promotional content to a targeted group of users based on sensor data, such as the user’s location or weather events, before digital images are selected or even created.

PO Resp. 8–9 (citing Ex. 1001, 5:65–6:23, 6:50–58, 11:38–51, 13:27–39). According to Patent Owner, the ’986 patent “provides an efficient method to send, for example, promotional vodka content to club-goers, as it does not require a user to select visual content to initiate the process and does not require the process to repeat itself for each selected image.” *Id.* at 10 (citing Ex. 1001, 11:27–38, 18:65–21:35).

We do not agree with Patent Owner’s arguments. As argued by Petitioner, Patent Owner fails to tie these distinctions, allegedly based either in process differences or benefits lacking in Hogege, to any “particular

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<sup>7</sup> Both Patent Owner and Petitioner italicize “Hogege” in the briefing. We omit such italicization from quotations in the briefing.

limitations of the challenged claims and show such limitations are not taught or suggested by Hogege.” Pet. Reply 2; *id.* at 5 (arguing that “these arguments are largely untethered to any particular claim element, and therefore are not particularly relevant” (citing Parulski Reply Decl. ¶ 24)); *see also In re Self*, 671 F.2d 1344, 1348 (CCPA 1982) (rejecting arguments “not based on limitations appearing in the claims”). For example, Patent Owner fails to identify language in the independent claims (or elsewhere) that *requires* the use of the recited methods on “real-time large-scale marketing and promotional campaigns.” PO Resp. 8. Moreover, even in a lengthy discussion of why the ’986 patent allegedly “expressly describes *and claims* distributing processing functions without first creating or selecting content” (PO Sur-reply 3 (emphasis added)), Patent Owner does not actually identify any specific claim language that allegedly adds the limitations argued. *See id.* at 3–5 (entire argument).

*(2) Elements 1b and 18c*

The “Distribution Rule” Limitations

Elements 1b and 18c each recite, in part: “each of the digital media content processing functions associated with at least one distribution rule defining a sensor data condition.” Ex. 1001, 23:49–51, 24:64–67 (“the ‘distribution rule’ limitation”). Petitioner contends that Hogege as modified satisfies this limitation and discusses why one of ordinary skill in the art at the time of the invention would have had reason to modify Hogege as proposed. *See* Pet. 33–42, 72; Parulski Pet. Decl. ¶¶ 217–236, 353–357.

Petitioner argues that Hogege teaches that its visual content editing functions are “associated with at least one distribution rule defining a sensor data condition” as recited because a subset of functions are selected and

distributed based on sensed conditions, such as client terminal location. Pet. 33–42 (citing Parulski Pet. Decl. ¶¶ 217–236); *see* Pet. 33 (“Hogeg teaches each of its digital media content processing functions (visual content editing functions discussed in [1a], [1e]) are associated with at least one distribution rule defining a sensor data condition (*e.g.*, selection module 105 uses a set of conditions, or distribution rule(s), which define a geographic location, or particular sensor data condition, and selects/distributes the associated visual content editing function when the conditions are satisfied).”).

More specifically, as to the recited “at least one distribution rule,” Petitioner states that Hogeg “teaches a set of conditions defining a function or action (*e.g.*, a rule) for selecting and distributing visual content editing functions” and that “Hogeg teaches its system applies a conditional selection process to select/distribute a subset of functions based on one or more of client terminal location, velocity, current events, demographics, and user data.” Pet. 33–34 (citing Ex. 1004 ¶¶ 8–18, 43, 54–74). According to Petitioner, one of ordinary skill in the art “would have understood Hogeg’s selection/distribution processes to utilize distribution rules, as they apply a set of conditions (*e.g.*, if the request is from a particular location) that, when satisfied, result in actions (*e.g.*, select/distribute a particular associated visual content editing function(s) relevant to the location).” Pet. 34 (citing Parulski Pet. Decl. ¶ 218). Petitioner also explains why “Hogeg teaches its distribution rule, or conditional selection process, is both ‘defining a sensor data condition’ and is ‘associated with’ its visual content editing functions” as recited in the “distribution rule” limitations. *See* Pet. 35–42 (citing Parulski Pet. Decl. ¶¶ 222–236).

Patent Owner first argues that Petitioner has “failed to meet its burden to show that Hogeg discloses or renders obvious the use of a ‘distribution rule defining a sensor data condition’” as recited in the “distribution rule” limitations. PO Resp. 17; *id.* at 15–17 (entire argument). Patent Owner asserts that Petitioner applies an “incorrect definition of ‘rule’” and thus “provides no basis to support a finding that Hogeg discloses any rule for *targeting a group of end-users* based on a sensor data condition from the mobile device.” *Id.* at 15. We disagree.

Petitioner quotes the entire passage from column 6 of the ’986 patent discussed above as to the claim construction of “distribution rule,” and then discusses why “Hogeg’s selection conditions are no different.” Pet. 34 (discussing Ex. 1001, 6:3–14) (citing Ex. 1001, Fig. 14; Parulski Pet. Decl. ¶ 219). Petitioner explains that Hogeg discloses “rules that determine that ‘only a group of end users having certain characteristics and/or match a certain requirement’ receive a particular visual content editing function (*e.g.*, a client terminal at a particular location will receive a location-relevant function).” *Id.* (quoting Ex. 1001, 6:3–14) (citing Parulski Pet. Decl. ¶ 220).

The record supports Petitioner’s argument that the system in Hogeg “targets a group of end-users” in that it assesses which of the users are, for example, at a specific location and then sends only those users a visual editing function relevant to the users’ location. For example, in a passage cited by Petitioner as to a “conditional selection process to select/distribute a subset of functions” (Pet. 33), Hogeg discloses that “if the positional data is indicative that the visual content was captured in New York, a visual content editing function which provides an overlay of the statue of liberty and/ or a sound overlay of the song New York [N]ew York may be provided.”



Ex. 1004 ¶ 58, *cited at* Pet. 33. This system “target[s] a group of end-users” in New York based on sensor data in that *other* end-users—such as ones indicated as being in California—*do not* receive the New York overlay.

Patent Owner attempts to distinguish Hogeg’s process in that the content editing functions are sent in response to image selection by the user. *See* PO Resp. 16 (“Thus, what Hogeg discloses is a process for sending content editing functions ad hoc based on the characteristics of specific pieces of content that are manually identified by a user. Nothing in Hogeg, however, teaches a system or process capable of targeting a group of end-users based on a sensor data condition from their mobile devices.”). This distinction, however, is not supported by the claims.

Elements 1b and 18c require a certain type of “distribution rule”—specifically one “defining a sensor data condition”—which Hogeg teaches for the reasons discussed above, but the claims *do not preclude* a user initiating the overall process with selection of an image. Stated differently (by Petitioner in the Reply), “whatever *initiates* Hogeg’s process makes no difference to Hogeg’s ‘distribution rules’” because “Hogeg’s content editing functions are still distributed according to, for example, client terminal location . . . and therefore Hogeg still uses distribution rules that target end users (*e.g.*, users at a particular location).” Pet. Reply 8 (citing Parulski Reply Decl. ¶ 40)).

Patent Owner also argues that the “distribution rule,” as recited and defined, must “target a group of end-users” rather than, for example, a single user. *See* PO Sur-reply 2–3. According to Patent Owner, “Hogeg does not suggest targeting such a group. Quite the contrary, Hogeg discusses the needs, preferences, visual content, data, requests, selections, social profile,

etc. of a single ‘user.’” *Id.* at 8 (citing Ex. 1004 ¶¶ 37, 45, 47). We do not agree with this argument.

Even if Petitioner’s briefing sometimes includes the singular form “user” to discuss the teachings of Hogeg (*see* PO Sur-reply 8 (citing Pet. Reply 6, 9–12)) and even if some of the disclosures in Hogeg highlighted by Patent Owner include the singular form “user,” the record supports that one of ordinary skill in the art would have understood the disclosures in Hogeg—including those relating to the identified “distribution rule” based on location—to apply to groups of *more than one* end-user. The testimony of Mr. Parulski supports this finding. *See* Parulski Reply Decl. ¶ 50 (stating that one of ordinary skill in the art “would have understood Hogeg’s examples related to providing real-time news, information, or sports data based on user’s current location would be directed to a group of users at the specified location”), *cited at* Pet. Reply 12.

Moreover, as noted by Petitioner, even though the “receiving” step in each of elements 1c and 18b requires “receiving . . . sensor data from each of a plurality of mobile devices,” the “distributing” step in each of elements 1d and 18d, and the “wherein” clause in each of elements 1e and 18e only recite “at least one mobile device.” *See* Pet. Reply 12–13. Thus, the “distributing” step that implements the “distribution rule” in the limitation at issue need only involve one user. Patent Owner does not address this issue.

Next, Patent Owner argues that Hogeg “does not contemplate the distribution rule of the present invention, which targets a group of users,” because “Hogeg describes providing functions based on visual content data” and thus, “at best, Hogeg targets image content, regardless of the user.” PO Sur-reply 9 (citing Ex. 1004 ¶¶ 49, 53–55). Patent Owner adds that

“Hogeg’s targeted visual content may have derived from an external image library.” *Id.* (citing Ex. 1004 ¶ 47). We do not agree with this argument because these *additional disclosures* in Hogeg do not undermine the disclosures in Hogeg relied on by Petitioner as to a “distribution rule” based on client terminal location. *See* Pet. 33–42.

For the reasons above, we find, based on the complete record, that Petitioner has demonstrated by a preponderance of the evidence that Hogeg as modified discloses the “distribution rule” limitation, that Petitioner has adequately explained why one of ordinary skill in the art would have modified Hogeg as proposed, and that there would have been a reasonable expectation of success.

#### The Rest of Elements 1b and 18c

We turn now to the rest of elements 1b and 18c—i.e., other than the “distribution rule” limitations. For these aspects, Petitioner discusses why Hogeg, as modified, satisfies the additional limitations and discusses why one of ordinary skill in the art at the time of the invention would have had reason to modify Hogeg as proposed. *See* Pet. 28–33, 72; Parulski Pet. Decl. ¶¶ 209–216, 353–357. The record evidence, as presented, supports Petitioner’s position as to these additional limitations. Patent Owner does not present arguments addressing these limitations.

We find, based on the complete record, that Petitioner has demonstrated by a preponderance of the evidence that Hogeg, as modified, satisfies the remaining limitations in elements 1b and 18c, that Petitioner has adequately explained why one of ordinary skill in the art would have modified Hogeg as proposed, and that there would have been a reasonable expectation of success.

*(3) The Remaining Limitations in Independent Claims 1 and 18*

To address the remaining limitations in independent claims 1 and 18, Petitioner discusses why Hogege, as modified, satisfies the additional limitations in these claims and discusses why one of ordinary skill in the art at the time of the invention would have had reason to modify Hogege as proposed. *See* Pet. 24–28, 42–55, 69–71, 73–75; Parulski Pet. Decl. ¶¶ 199–208, 237–272, 341–352, 358–363. The record evidence, as presented, supports Petitioner’s position as to the additional limitations in the independent claims. Patent Owner does not present arguments addressing these limitations.

We find, based on the complete record, that Petitioner has demonstrated by a preponderance of the evidence that Hogege, as modified, satisfies the remaining limitations in claims 1 and 18. We also determine that Petitioner has adequately explained why one of ordinary skill in the art would have modified Hogege and that there would have been a reasonable expectation of success.

*(4) Conclusion as to Independent Claims 1 and 18*

For the reasons above, we determine, based on the complete record and having weighed the underlying factual findings in the overall obviousness assessment, that Petitioner has demonstrated by a preponderance of the evidence that claims 1 and 18 would have been obvious based on Hogege.

*b. Claims 2, 4–6, 8–14, 16, 19, 21–23, 25–31, and 33*

Claims 2, 4–6, 8–14, and 16 depend from independent claim 1, and claims 19, 21–23, 25–31, and 33 depend from independent claim 18. To address these claims, Petitioner discusses why Hogege, as modified, satisfies

the additional limitations in these claims and discusses why one of ordinary skill in the art at the time of the invention would have had reason to modify Hoge as proposed. *See* Pet. 55–67, 69, 75–79; Parulski Pet. Decl. ¶¶ 273–333, 338–340, 364–375, 377.

The record evidence, as presented, supports Petitioner’s position as to the additional limitations in these dependent claims. Patent Owner does not present arguments addressing these claims. We find, based on the complete record, that Petitioner has demonstrated by a preponderance of the evidence that Hoge, as modified, satisfies the additional limitations in claims 2, 4–6, 8–14, 16, 19, 21–23, 25–31, and 33. We also determine that Petitioner has adequately explained why one of ordinary skill in the art would have modified Hoge and that there would have been a reasonable expectation of success. Based on the complete record and having weighed the underlying factual findings in the overall obviousness assessment, we determine, that Petitioner has demonstrated by a preponderance of the evidence that claims 2, 4–6, 8–14, 16, 19, 21–23, 25–31, and 33 would have been obvious based on Hoge.

*c. Claims 15 and 32*

Claim 15 depends from claim 1 and claim 32 depends from claim 18, with both claims 15 and 32 adding the requirement that “the at least one digital media content processing function is configured to be used in a time interval of few seconds or less by an application executed on at least one of the mobile devices.” Ex. 1001, 24:46–49, 26:23–26. Petitioner contends that Hoge as modified satisfies these added limitations. *See* Pet. 67–68 (claim 15), 78 (relying on the discussion of claim 15 for claim 32).

Specifically, Petitioner states that “Hogeg renders Claim 15 obvious because it teaches its visual content editing functions operate in real-time with real-time information, as discussed regarding Claim 14.” Pet. 67–68 (citing Ex. 1004 ¶¶ 38, 54, 60–63, 74; Parulski Pet. Decl. ¶¶ 334, 335, 337). According to Petitioner, one of ordinary skill in the art “would have understood these teachings as indicating Hogeg’s visual content editing functions may incorporate information based on real-time events, such as current events in a city or a sports match at a stadium” and “would have further understood, because Hogeg collects and distributes real-time content, the client terminal would also have used such content in real time when it is relevant (and before the next real-time content becomes available).” Pet. 68. Petitioner adds that one of ordinary skill in the art “would have understood quick updating of the visual content editing functions and immediate use of those functions on client terminal 102 was important in Hogeg” and thus, “[b]ased in this understanding, it would have been obvious to enable Hogeg’s visual content editing functions to be used within a few seconds or less, so the adjusted visual content could be immediately viewed, uploaded, or shared.” *Id.* (citing Parulski Pet. Decl. ¶ 336). Petitioner notes that this statement applies whether one of ordinary skill in the art would have understood “used” as “*initiating* or *completing* use of the function in a few seconds.” Pet. 68 n.12.

Patent Owner argues that Petitioner fails to show that Hogeg discloses the additional limitations of claims 15 and 32. *See* PO Resp. 17–19; PO Sur-reply 9–11. Specifically, Patent Owner asserts that

Hogeg’s process requires numerous steps to be performed before an image processing function is set to be used, including generating visual content data indicative of where the image was

taken; the user selecting that particular image for editing, transmitting the visual content data from that image to a server, selecting the appropriate content editing functions at the server based on the visual content data, and transmitting the editing functions back to the user's device.

PO Resp. 18. According to Patent Owner, "Petitioner offers no evidence that this process would take a few seconds or less." *Id.* Patent Owner contends that the issue here is "how long it takes before a function is sent to be used by an application on each mobile device." *Id.* at 19.

We disagree with Patent Owner's proposed construction of the added limitations of claims 15 and 32. For the reasons below, the "time interval of [a] few seconds or less" does not relate to "how long it takes before a function is sent to be used by an application on each mobile device" as argued by Patent Owner (PO Resp. 19), but rather, as argued by Petitioner (Pet. Reply 14–15), the "time interval" specifies how long the recited "processing function" takes to process an image. *See* Pet. Reply 14 ("This is what [one of ordinary skill in the art] would have understood Claim 15 to recite – the use of the received processing function to ***process an image*** in a few seconds or less. In other words, all that is required by the language of Claim 15 is that ***after*** the processing function has been received, it can be used by an application on the mobile device in 'a few seconds or less.'" (citing Parulski Reply Decl. ¶ 70).

Petitioner's understanding of the requirement added by the limitations in claims 15 and 32 is supported by the express language of their independent claims. Elements 1e and 18e both recite what the "processing function" is "configured to be used" to do—"process a digital media content to create an output digital media content." *See* Ex. 1001, 23:63–67, 25:10–14 (both reciting "wherein the at least one digital media content processing

function is configured to be used by an application executed on the at least one mobile device to process a digital media content to create an output digital media content”). And claims 15 and 32, which depend directly from independent claims 1 and 18, then repeat the “configured to be used” phrasing and specify the “time interval” for the “process” recited in elements 1e and 18e—a “few second or less.” *Id.* at 24:46–49, 26:23–26. Thus, the record supports Petitioner’s proposed understanding of the additional limitations of claims 15 and 32 as specifying the “time interval” for how long the recited “processing function” takes to process an image.

We do not agree with Patent Owner’s argument that “[c]laim 1 recites a four-step process to make a processing function ‘configured to be used’” such that the “time interval” relates to the time to perform, for example, elements 1b through 1d in claim 1. *See* PO Sur-reply 10. For the reasons discussed above, both dependent claims 15 and 32 and their independent claims 1 and 18 recite “configured to be used” in a manner to link the recited “time interval” to the “process” recited in the independent claims. Notably, for this argument, Patent Owner cites no intrinsic or extrinsic evidence, including declarant testimony, in support of its proposed understanding. *See id.*; PO Resp. 18 (top paragraph). We find Petitioner’s supporting declarant testimony credible on this issue because it closely tracks the language of the claims. *See* Parulski Reply Decl. ¶ 74 (stating that claim 15 “merely requires the forwarded processing function to be *used* (e.g., not matched and distributed) in a few second or less”).

Patent Owner also argues that Petitioner’s discussion of the proper understanding of claims 15 and 32 in the Reply is “belated.” PO Sur-reply 9. We disagree. Petitioner made clear in the Petition that its position



as to these claims at least *included* the position that the “time interval” is to “complet[e] use of the function.” *See* Pet. 68 n.12. For example, Petitioner states that “it would have been obvious to enable Hogeg’s visual content editing functions to be used within a few seconds or less, so the adjusted visual content could be immediately viewed, uploaded, or shared.” Pet. 68 (citing Parulski Pet. Decl. ¶ 336). And the evidence developed at trial supports that one of ordinary skill in the art would have understood the identified “processing function” in Hogeg to perform the function of “process[ing] a digital media content to create an output digital media content” (as recited in the independent claims) in the “time interval” recited in claims 15 and 32. For example, in unopposed testimony, Mr. Parulski states that one of ordinary skill in the art “would have understood that, in step 207 in Hogeg’s FIG. 3, the process of adjusting the visual content using the selected visual content editing function (*e.g.*, overlaying a Nike logo on a small portion of the image) would have been completed in a few seconds or less” and that the time for performing an image processing function “is an important aspect of mobile applications (and, for that matter, most computer applications).” Parulski Reply Decl. ¶ 72, *cited at* Pet. Reply 15. Patent Owner does not address this evidence in its briefing. *See* PO Sur-reply 9–11. We find, based on the complete record, that Petitioner has demonstrated by a preponderance of the evidence that Hogeg, as modified, satisfies the added limitations in claims 15 and 32. We also determine that Petitioner has adequately explained why one of ordinary skill in the art would have modified Hogeg and that there would have been a reasonable expectation of success. Thus, based on the complete record and having weighed the underlying factual findings in the overall obviousness assessment, we

determine that Petitioner has demonstrated by a preponderance of the evidence that claims 15 and 32 would have been obvious based on Hoge as modified.

### III. CONCLUSION

Upon consideration of the briefing and the evidence of record, we determine that Petitioner has proven by a preponderance of the evidence that claims 1, 2, 4–6, 8–16, 18, 19, 21–23, and 25–33 of the '986 patent would have been obvious based on Hoge.<sup>8</sup>

In summary:

<b>Claims</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/ Basis</b>	<b>Claims Shown Unpatentable</b>	<b>Claims Not Shown Unpatentable</b>
1, 2, 4–6, 8–16, 18, 19, 21–23, 25–33	103(a)	Hoge	1, 2, 4–6, 8– 16, 18, 19, 21–23, 25–33	
<b>Overall Outcome</b>			<b>1, 2, 4–6, 8– 16, 18, 19, 21–23, 25–33</b>	

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<sup>8</sup> Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this decision, we draw Patent Owner's attention to the April 2019 Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding, 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. *See* 37 C.F.R. §§ 42.8(a)(3), (b)(2).

IV. ORDER

Accordingly, it is hereby:

ORDERED that Petitioner has proven by a preponderance of the evidence that claims 1, 2, 4–6, 8–16, 18, 19, 21–23, and 25–33 of the '986 patent are unpatentable; and

FURTHER ORDERED that, because this is a Final Written Decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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