

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner,

v.

BLACKBERRY LTD.,
Patent Owner.

Case IPR2017-00911
Patent 8,745,149 B2

Before SALLY C. MEDLEY, ROBERT J. WEINSCHENK, and
RICHARD H. MARSCHALL, *Administrative Patent Judges*.

WEINSCHENK, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a)

I. INTRODUCTION

Google LLC (“Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting an *inter partes* review of claims 1–17 (“the challenged claims”) of U.S. Patent No. 8,745,149 B2 (Ex. 1001, “the ’149 patent”). BlackBerry Limited (“Patent Owner”) filed a Preliminary Response (Paper 6, “Prelim. Resp.”) to the Petition. On August 30, 2017, we instituted an *inter partes* review of the challenged claims of the ’149 patent on the following grounds:

Claims	Statutory Basis	Applied References
1–5, 9–13, and 17	35 U.S.C. § 103(a) ¹	Appelman et al., PCT Patent Application Publication No. WO 01/24036 A2 (filed Sept. 21, 2000, published Apr. 5, 2001) (Ex. 1012, “Appelman”) and Toshio, Japanese Patent Application Publication No. H03-89639 (filed Aug. 31, 1989, published Apr. 15, 1991) (Ex. 1007, “Toshio”)
1, 5–7, 9, 13–15, and 17	35 U.S.C. § 103(a)	Appelman and Milton et al., U.S. Patent No. 5,631,949 (filed May 22, 1995, issued May 20, 1997) (Ex. 1006, “Milton”)
8 and 16	35 U.S.C. § 103(a)	Appelman, Toshio, and MacPhail, U.S. Patent No. 6,661,434 B1 (filed Apr. 13, 2000, issued Dec. 9, 2003) (Ex. 1009, “MacPhail”)

¹ The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, which was enacted on September 16, 2011, made amendments to 35 U.S.C. §§ 102, 103. AIA § 3(b), (c). Those amendments became effective on March 16, 2013. *Id.* at § 3(n). Because the challenged claims of the ’149 patent have an effective filing date before March 16, 2013, any citations herein to 35 U.S.C. §§ 102, 103 are to their pre-AIA versions.

Claims	Statutory Basis	Applied References
8 and 16	35 U.S.C. § 103(a)	Appelman, Milton, and MacPhail

Paper 7 (“Dec. on Inst.”), 19–20.

After institution, Patent Owner filed a Response (Paper 17, “PO Resp.”) to the Petition, and Petitioner filed a Reply (Paper 20, “Pet. Reply”) to the Response. Petitioner submitted a Declaration of Dr. Dan R. Olsen Jr. (Ex. 1002) with the Petition, and Patent Owner submitted a transcript of the deposition of Dr. Olsen (Ex. 2006) with the Response. Patent Owner submitted a Declaration of Dr. George T. Ligler (Ex. 2007) with the Response, and Petitioner submitted a transcript of the deposition of Dr. Ligler (Ex. 1018) with the Reply. An oral hearing was held on May 30, 2018, and a transcript of the hearing is included in the record.² Paper 27 (“Tr.”).

We issue this Final Written Decision pursuant to 35 U.S.C. § 318(a). For the reasons set forth below, Petitioner has shown by a preponderance of the evidence that claims 1–17 of the ’149 patent are unpatentable.

A. Related Proceedings

The parties indicate that the ’149 patent is the subject of the following district court case: *BlackBerry Ltd. v. BLU Products, Inc.*, No. 1:16-cv-23535 (S.D. Fla.). Pet. 1; Paper 4, 1. The parties also indicate that Petitioner filed another petition requesting an *inter partes* review of the ’149 patent in IPR2017-00912. Pet. 1; Paper 4, 1.

² The oral hearing included a related proceeding, IPR2017-00912. Paper 24.

B. *The '149 Patent*

The '149 patent relates to “a handheld electronic device and a method for providing information representative of the times of certain communications in a messaging environment.” Ex. 1001, 1:20–24. The '149 patent explains that when a messaging conversation continues quickly, there generally is no need to display time information. *Id.* at 1:58–64. In other circumstances, though, “it may be desirable for information regarding certain timing aspects . . . to be available to a user,” but “the limited space available on a display of a handheld electronic device has made a solution difficult.” *Id.* at 1:65–2:2. To address this alleged problem, the '149 patent describes an electronic device that displays time information for a message only after the expiration of a predetermined period during which no additional messages are exchanged or only when a user manually requests time information. *Id.* at 5:31–38, 6:14–23, 7:11–19.

The '149 patent also explains that it is desirable to provide a user with additional time information “depending upon the prevailing circumstances” so that the user may have “an expedited understanding of the timing aspects of the message.” *Id.* at 7:37–40, 8:26–33. To address this alleged problem, the '149 patent describes a smart time stamp and an active time stamp. *Id.* at 7:37–50, 7:59–8:5. A smart time stamp displays first time information, such as “2:44 pm,” for a message in a conversation. *Id.* at 7:37–50. If the conversation is not resumed until the following day, the smart time stamp automatically changes the first time information to second time information, such as “2:44 pm yesterday,” to reflect the change in day. *Id.* An active time stamp displays first time information, such as “one minute ago,” for a message in a conversation, and then changes the first time information to

second time information, such as “two minutes ago,” as time progresses. *Id.* at 7:59–8:5.

C. *Illustrative Claim*

Claims 1, 9, and 17 are independent. Claim 1 is reproduced below.

1. A method of displaying an instant messaging conversation on a display of an electronic device, the method comprising:

- displaying a conversation of instant messages;
- displaying a first time information for an instant message in the conversation in response to a first input; and
- automatically changing the first time information for the instant message to a second time information as time progresses and displaying the second time information instead of the first time information.

Ex. 1001, 8:48–57.

II. ANALYSIS

A. *Level of Ordinary Skill in the Art*

Petitioner argues that a person of ordinary skill in the art would have had “at least a B.S. degree in computer science, electrical engineering, or equivalent thereof, and at least two years of experience in the relevant field, e.g., graphical user interfaces,” but notes that “[m]ore education can supplement practical experience and vice versa.” Pet. 5–6 (citing Ex. 1002 ¶¶ 13–14). Patent Owner argues that a person of ordinary skill in the art would have had “at least a bachelor’s degree in computer science, electrical engineering, or the equivalent, and at least two years of experience in designing user interfaces for mobile devices such as cellular telephones, personal digital assistances (PDA), or other handheld devices.” PO Resp. 9–10 (citing Ex. 2007 ¶ 41). The parties’ respective definitions of the level of

ordinary skill in the art are similar. Patent Owner contends, though, that Petitioner’s definition improperly focuses on “generic” user interfaces, rather than user interfaces specifically for mobile devices. PO Resp. 10 (citing Ex. 2007 ¶ 42).

We are not persuaded by Patent Owner’s contention that a person of ordinary skill in the art must have experience in designing user interfaces for mobile devices. As Patent Owner points out, portions of the specification of the ’149 patent describe a “handheld electronic device.” Ex. 1001, 1:20–24, 2:9–32. But other portions of the specification, as well as the claims, describe an “electronic device” more generally, and, thus, are not limited to a handheld or mobile device. *Id.* at 2:33–3:7, 8:48–57, 9:9–22, 10:15–25. Therefore, based on the evidence of record, including the types of problems and solutions described in the ’149 patent and the asserted prior art, we agree with and adopt Petitioner’s definition of the level of ordinary skill in the art. Pet. 5–6; Ex. 1002 ¶¶ 13–14.

B. *Claim Construction*

The claims of an unexpired patent are interpreted using the broadest reasonable interpretation in light of the specification of the patent in which they appear.³ 37 C.F.R. § 42.100(b); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–45 (2016). “Under a broadest reasonable interpretation, words of the claim must be given their plain meaning, unless such meaning is inconsistent with the specification and prosecution history.” *TriVascular, Inc. v. Samuels*, 812 F.3d 1056, 1062 (Fed. Cir. 2016). An applicant may provide a definition of a term in the specification with reasonable clarity,

³ We would construe the claim term discussed below the same under *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc).

deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994). In the absence of such a definition, limitations are not to be read into the claims from the specification. *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993).

1. *Automatically*

Claim 1 recites “automatically changing the first time information for the instant message to a second time information as time progresses and displaying the second time information instead of the first time information.” Ex. 1001, 8:54–57. Claims 9 and 17 recite similar limitations. *Id.* at 9:19–22, 10:22–25. Petitioner proposes construing the term “automatically” to mean “by itself with little or no direct human control.” Pet. Reply 2.

Petitioner argues that its proposed construction is supported by the claim language, specification, prosecution history, and certain extrinsic evidence. *Id.* at 2–7. Petitioner further contends that the term “automatically” only modifies the term “changing” in the challenged claims and does not modify the term “displaying.” *Id.* at 9–12. Patent Owner proposes construing the term “automatically” to mean “not manually initiated.” PO Resp. 12. Patent Owner argues that its proposed construction is supported by the claim language, specification, prosecution history, and certain extrinsic evidence. *Id.* at 12–16. Patent Owner further contends that the term “automatically” modifies both the terms “changing” and “displaying” in the challenged claims. *Id.* at 16–18.

In the Decision on Institution, we adopted Patent Owner’s proposed construction. Dec. on Inst. 8. We see no reason to deviate from that determination. The specification of the ’149 patent supports Patent Owner’s proposed construction that the term “automatically” means “not manually

initiated.” Specifically, the ’149 patent distinguishes between a manual operation and an automatic operation. For example, the ’149 patent states that if a time stamp for a message is desired, “the user may activate a user interface . . . , which can *manually* cause the output of an inserted time stamp.” Ex. 1001, 6:19–23 (emphasis added). In contrast, the ’149 patent states that if a first time stamp is displayed for a message and the conversation is not resumed until the following day, the first time stamp “could be configured to *automatically* change from being displayed as ‘2:44 pm’ . . . to being displayed as, for instance, . . . ‘2:44 pm yesterday.’” *Id.* at 7:40–50 (emphasis added). Thus, because the ’149 patent distinguishes between a manual operation and an automatic operation, the ’149 patent indicates that an automatic operation is not manually initiated.

Petitioner appears to agree that the specification of the ’149 patent distinguishes between a manual operation and an automatic operation, but attempts to further explain the difference between them. Pet. Reply 4 (“[T]he use of ‘automatically’ and ‘manually’ in the specification convey that an operation initiated by direct human control is manually performed and that an operation may be automatically performed even if it is the result of a different prior operation that is manually initiated.”). However, Petitioner’s use of the phrase “little or no direct human control” in its proposed construction injects ambiguity into the challenged claims. Tr. 7:4–9. Thus, we do not adopt Petitioner’s proposed construction. As discussed below, though, we clarify what it means for an operation to be “not manually initiated” in the context of the challenged claims.

In the Decision on Institution, we agreed with Patent Owner that the term “automatically” modifies the terms “changing” and “displaying” in the

challenged claims. Dec. on Inst. 8. We see no reason to deviate from that determination. The specification and prosecution history of the '149 patent support Patent Owner's position that the term "automatically" modifies the terms "changing" and "displaying" in the challenged claims. The '149 patent states that if a first time stamp is displayed for a message and the conversation is not resumed until the following day, the first time stamp "could be configured to *automatically change* from being *displayed* as '2:44 pm' . . . to being *displayed* as, for instance, . . . '2:44 pm yesterday.'" Ex. 1001, 7:40–50 (emphases added). This portion of the '149 patent indicates that the automatic change is made to the *displayed* time stamp, thereby indicating that the term "automatically" also modifies the term "displaying" in the challenged claims. Further, during prosecution, the Examiner rejected the pending independent claims as being unpatentable over Appelman '497⁴ and Lapuyade.⁵ Ex. 1004, 237, 245–249. In response to the rejection, Patent Owner amended the pending independent claims "to clarify the protection being sought by *combining* the [changing and displaying] operations and specifying that the 'changing' is done automatically." *Id.* at 236 (emphasis added). Patent Owner's statement during prosecution that it was combining the changing and displaying operations indicates that both operations are performed automatically.

Petitioner contends that the term "automatically" appears immediately before the term "changing" in the challenged claims, but not immediately

⁴ Appelman et al., U.S. Patent No. 7,181,497 B1 (filed Jan. 22, 2003, issued Feb. 20, 2007) (Ex. 2001, "Appelman '497").

⁵ Lapuyade et al., U.S. Patent No. 7,219,109 B1 (filed Aug. 27, 2001, issued May 15, 2007) (Ex. 2002, "Lapuyade").

before the term “displaying.” Pet. Reply 9. Thus, according to Petitioner, the term “automatically” only modifies the term “changing.” *Id.* at 10. We disagree. As discussed above, the specification of the ’149 patent indicates that the term “automatically” applies to both the changing and displaying operations. Ex. 1001, 7:40–50. Petitioner also contends that Patent Owner stated during prosecution that only the changing operation is performed automatically. Pet. Reply 10. We disagree. As discussed above, Patent Owner stated during prosecution that it was combining the changing and displaying operations. Ex. 1004, 236.

In the Decision on Institution, we clarified that in the context of the challenged claims, the term “automatically” only applies to the specific operations of changing and displaying time information, and that other prior operations can be manually initiated. Dec. on Inst. 8. We see no reason to deviate from that determination. The specification of the ’149 patent supports our clarification. In particular, the ’149 patent describes a manual embodiment in which a user manually initiates the specific operation of displaying time information. Ex. 1001, 6:19–23, 7:11–19. For example, the ’149 patent states that by “moving a cursor 374 or other pointing device or other device in proximity to a given message 368 a corresponding requested time stamp is output adjacent the message 368.” *Id.* at 7:11–16.

In contrast, the ’149 patent describes an automatic embodiment in which a user manually initiates a prior operation, but the displayed time information changes automatically. *Id.* at 5:62–6:2, 7:40–50. Specifically, the ’149 patent explains that a user *manually* resumes an instant messaging conversation by sending another message. *Id.* at 5:62–6:2. The ’149 patent further states that “if the first time stamp 84 of FIG. 4 was output as

indicated above, and *if the conversation was not resumed until the following day*, the first time stamp 84 potentially could be configured to *automatically change* from being displayed as ‘2:44 pm’ . . . to being displayed as, for instance, . . . ‘2:44pm yesterday.’” *Id.* at 7:40–50 (emphases added). As such, according to the ’149 patent, when a user *manually* resumes an instant messaging conversation from a previous day, the displayed time information *automatically changes* to reflect the change in day. *Id.* at 5:62–6:2, 7:40–50. Thus, although the user manually initiates the prior operation of resuming the instant messaging conversation, the user does not manually initiate the specific operation of changing the displayed time information.

The prosecution history also supports our clarification. During prosecution, the Examiner rejected the pending independent claims as being unpatentable over Appelman ’497 and Lapuyade. Ex. 1004, 237, 245–249. According to Patent Owner, Lapuyade teaches that a user manually “select[s] an option to change to a new time zone.” *Id.* at 238. In other words, in Lapuyade, a user manually initiates the specific operation of changing the displayed time information.⁶ In response to the rejection, Patent Owner amended the pending independent claims “to clarify the protection being sought by combining the [changing and displaying] operations and specifying that the ‘changing’ is done automatically.” *Id.* at 236. Patent Owner then argued that the amended independent claims were

⁶ Patent Owner similarly acknowledges in this case that “Lapuyade’s disclosure is clear that the displayed time information (*e.g.*, the displayed time for a calendar entry) is changed manually, such as when the user instructs the system to ‘change display time zone’ via button 724, or by ‘tap[ing] the displayed time zone in box 718 to make a selection of a correct local time zone.’” PO Resp. 7 (citing Ex. 2002, 6:21–43).

distinguishable from Lapuyade because “[a]lthough Lapuyade shows a prompt allowing the user to select an option to change to a new time zone, it is unclear to Applicant how such a feature would suggest automatically changing time information in an instant messaging conversation.” *Id.* at 70. Patent Owner’s argument regarding Lapuyade indicates that the term “automatically” was added to the pending independent claims to distinguish prior art that taught manually initiating the specific operation of changing the displayed time information.

Patent Owner disagrees with our clarification. PO Resp. 18–20. First, Patent Owner points to the portion of the ’149 patent that describes a smart time stamp. *Id.* at 18–19. Patent Owner contends that “the passage of time is the cause of the automatically updated display” and “*not* an intervening manual action by the user.” *Id.* Patent Owner’s argument is not persuasive. The relevant portion of the ’149 patent states:

In this regard, and in accordance with another aspect of the invention, a given time stamp may be a *smart time stamp* and provide additional information *depending upon the prevailing circumstances*. For instance, if the first time stamp 84 of FIG. 4 was output as indicated above, and *if the conversation was not resumed until the following day*, the first time stamp 84 potentially could be configured to *automatically* change from being displayed as “2:44 pm” on the day of communication of the non-responded-to message 80 to being displayed as, for instance, “2:44 pm Thursday” or, for instance, “2:44 PM Sep. 17, 2004” or, for instance, “2:44 pm yesterday” on the following day, although other configurations will be apparent and will be within the concept of the invention.

Ex. 1001, 7:37–50 (emphases added). As discussed above, the ’149 patent explains that a user *manually* resumes an instant messaging conversation by sending another message. *Id.* at 5:62–6:2. Thus, the smart time stamp

described in the '149 patent automatically changes the displayed time information *after* a user manually resumes an instant messaging conversation from a previous day. *Id.* at 7:37–50.

Second, Patent Owner points to the portion of the '149 patent that describes an active time stamp, which, according to Patent Owner, automatically changes “without requiring any intervening manual input to prompt the updated display.” PO Resp. 19 (citing Ex. 1001, 7:59–64). The portion of the '149 patent cited by Patent Owner states:

Such a time stamp 478 could be configured to be an *active time stamp*, meaning that it would change as time progressed. For instance, the time stamp 478 could progressively change from saying “less than one minute ago” to saying “one minute ago”, “two minutes ago”, “forty-five minutes ago”, and the like as time progressed.

Ex. 1001, 7:59–64 (emphasis added). We understand this active time stamp to be different than the smart time stamp discussed above. *Compare id.* at 7:37–50, *with id.* at 7:59–64. And we are not persuaded that the term “automatically” in the challenged claims is limited to just the active time stamp described in the '149 patent. As discussed above, the '149 patent describes the smart time stamp as “automatically” changing the displayed time information after a user manually resumes an instant messaging conversation from a previous day. *Id.* at 5:62–6:2, 7:37–50.

For the foregoing reasons, we adopt Patent Owner’s proposed construction of the term “automatically.” Specifically, we construe the term “automatically” to mean “not manually initiated.” We clarify, though, that in the context of the challenged claims, the term “automatically” only

applies to the specific operations of changing and displaying time information, and that other prior operations can be manually initiated.⁷

2. *First Input*

Petitioner proposes construing the term “first input.” Pet. 13. Patent Owner responds that the term “first input” does not require express construction. PO Resp. 11. We determine that the term “first input” does not require express construction to resolve the parties’ disputes regarding the asserted grounds of unpatentability in this case. *See infra* Sections II.C–II.E; *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) (“[O]nly those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy.”).

C. *Obviousness of Claims 1–5, 9–13, and 17 over Appelman and Toshio*

Petitioner argues that claims 1–5, 9–13, and 17 would have been obvious over Appelman and Toshio. Pet. 2. 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 the 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 ordinary

⁷ Our clarification regarding the term “automatically” is only pertinent to our analysis of the asserted grounds of unpatentability that include Milton. *See infra* Section II.D.2.

skill in the art; and (4) any objective indicia of non-obviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

We have considered the parties’ arguments and supporting evidence, and we determine that Petitioner has shown by a preponderance of the evidence that claims 1–5, 9–13, and 17 would have been obvious over Appelman and Toshio.

1. *Overview of Appelman and Toshio*

Appelman relates to “a messaging application (e.g., e-mail, instant messaging, chat rooms, etc.) user interface.” Ex. 1012, 1:6–8.⁸ In particular, Appelman teaches a user interface with an output text field that displays sent and received messages. *Id.* at 16:23–25. Each message includes a time stamp that shows the time (e.g., 13:20:05) at which the message was sent or received. *Id.* at 16:25–17:4, 18:2–22, Figs. 9, 12.

Toshio relates to “a selective call receiver with a display function, wherein the selective call receiver with a display function displays the changes over time.” Ex. 1007, 229. More specifically, Toshio’s selective call receiver “is configured as follows: a time function is provided to determine whether the date has been updated; when the date has been updated, the fact that the day the message was received is not today is memorized and displayed along with the incoming message and the receipt time.” *Id.* at 230. Toshio explains that displaying the number of elapsed days along with the receipt time for an incoming message “prevent[s] a user from being confused even in the case of multiple incoming messages received over several days.” *Id.* at 231.

⁸ We cite to the original page numbers of Appelman, rather than the page numbers added by Petitioner when Appelman was filed as Exhibit 1012.

2. *Claims 1, 9, and 17*

Claim 1 recites “[a] method of displaying an instant messaging conversation on a display of an electronic device, the method comprising: displaying a conversation of instant messages.” Ex. 1001, 8:48–51.

Appelman teaches an electronic device that displays a conversation of instant messages. Pet. 15–17; Ex. 1012, 1:27–31, 2:12–18, 7:14–15, 20:3–22, Fig. 19. Patent Owner does not dispute that the combination of Appelman and Toshio teaches the above limitation of claim 1.

Claim 1 recites “displaying a first time information for an instant message in the conversation in response to a first input.” Ex. 1001, 8:52–53. Appelman teaches displaying an absolute time stamp for an instant message in a conversation in response to a user sending or receiving a message. Pet. 17–19; Ex. 1002 ¶ 41; Ex. 1012, 16:25–17:4, 18:2–22, Fig. 12. Patent Owner does not dispute that the combination of Appelman and Toshio teaches the above limitation of claim 1.

Claim 1 recites “automatically changing the first time information for the instant message to a second time information as time progresses and displaying the second time information instead of the first time information.” Ex. 1001, 8:54–57. Toshio teaches a call receiver that displays the time a message was received. Pet. 20–21; Ex. 1007, 229–231. Toshio also teaches that when the date changes, the call receiver automatically changes the receipt time for the message to indicate that it was received the previous day, such as by adding a simple mark. Pet. 20–21; Ex. 1007, 230 (“[W]hen the date has been updated, the fact that the day the message was received is not today is memorized and displayed along with the incoming message and the receipt time.”), 231 (“The display of the number of elapsed days of this

incoming message does not need to be a complicated one; a simple mark may be used.”). In other words, Toshio teaches automatically changing the time information for a message from just the receipt time to a combination of the receipt time and the number of elapsed days. Pet. 20–21; Ex. 1002 ¶ 43; Ex. 1007, 230–231.

Patent Owner responds that Toshio does not teach automatically changing and displaying time information as time progresses.⁹ PO Resp. 21–27. Specifically, Patent Owner argues that “[a]t best, Toshio’s call receiver automatically updates a variable stored in memory that represents ‘the number of days’ since a message was received, but the Petition provides no explanation for how it would ‘*automatically*’ display the changed information, as required by the claims.” *Id.* at 22 (citing Ex. 2007 ¶ 58). Patent Owner further argues that Toshio teaches a manual display function that “chang[es] the displayed information only ‘depending on’ or ‘according to’ whether the user needs to view her messages.” PO Resp. 22–23 (citing Ex. 1007, 229–231; Ex. 2007 ¶ 58).

Patent Owner’s argument is not persuasive because it addresses Toshio individually, not the combination of Appelman and Toshio proposed by Petitioner. *See In re Keller*, 642 F.2d 413, 426 (CCPA 1981) (“[O]ne cannot show non-obviousness by attacking references individually where, as here, the rejections are based on combinations of references.”). As discussed above, Appelman teaches *displaying* an absolute time stamp for an

⁹ Because Petitioner has shown sufficiently that the combination of Appelman and Toshio teaches the limitations of claim 1, we do not address what Patent Owner refers to as Petitioner’s “backup” argument regarding the background knowledge and perspective of a person of ordinary skill in the art. *See* PO Resp. 33–38.

instant message in a conversation (Ex. 1012, 16:25–17:4, 18:2–22, Fig. 12), and Toshio teaches automatically *changing* a receipt time (i.e., an absolute time) for a message to a combination of the receipt time and the number of elapsed days (Ex. 1002 ¶ 43; Ex. 1007, 230–231). Petitioner asserts that it would have been obvious to modify Appelman’s absolute time stamp to automatically change to include an indication of the number of elapsed days based on the age of the message as taught by Toshio. Pet. 21; Ex. 1002 ¶ 44. Thus, even if Toshio only teaches automatically changing time information as time progresses, the combination of Appelman and Toshio teaches automatically changing *and* displaying time information as time progresses.¹⁰ Pet. 21; Ex. 1002 ¶ 44.

Independent claims 9 and 17 recite limitations similar to those discussed above for claim 1. Ex. 1001, 9:9–22, 10:15–25. Other than the arguments discussed above for claim 1, Patent Owner does not raise any arguments specific to claims 9 and 17.

¹⁰ Moreover, although not necessary to our determination, we note that Toshio alone teaches automatically changing *and* displaying time information as time progresses. Specifically, even if a user manually retrieves a message (*see* PO Resp. 22–27), Toshio does not teach that the user manually initiates the specific operation of displaying time information for the message. Rather, Toshio teaches that “a time function is provided to determine whether the date has been updated; when the date has been updated, the fact that the day the message was received is not today is memorized and displayed along with the incoming message and the receipt time.” Ex. 1007, 230. In other words, when a user retrieves a message, Toshio’s call receiver automatically displays time information for the message. *Id.*; Ex. 1002 ¶ 43.

3. *Claims 2 and 10*

Claim 2 depends from claim 1, and recites “wherein the first time information comprises an absolute time.” *Id.* at 8:58–59. Claim 10 depends from claim 9, and recites a similar limitation. *Id.* at 9:23–24. Appelman teaches displaying an absolute time stamp for an instant message in a conversation in response to a user sending or receiving a message. Pet. 17–19, 27; Ex. 1002 ¶ 41; Ex. 1012, 16:25–17:4, 18:2–22, Fig. 12. Other than the arguments discussed above for claims 1 and 9, Patent Owner does not dispute that the combination of Appelman and Toshio teaches the limitation of claims 2 and 10.

4. *Claims 3 and 11*

Claim 3 depends from claim 2, and recites “wherein the second time information further comprises additional information.” Ex. 1001, 8:60–61. Claim 11 depends from claim 10, and recites a similar limitation. *Id.* at 9:25–26. Toshio teaches that when the date changes, the call receiver automatically changes the receipt time for a message to indicate that it was received the previous day, such as by adding a simple mark. Pet. 20–21, 27–28; Ex. 1007, 230–231. Other than the arguments discussed above for claims 1 and 9, Patent Owner does not dispute that the combination of Appelman and Toshio teaches the limitation of claims 3 and 11.

5. *Claims 4 and 12*

Claim 4 depends from claim 3, and recites “wherein the additional information comprises an indication of a day on which the instant message was sent.” Ex. 1001, 8:62–64. Claim 12 depends from claim 11, and recites a similar limitation. *Id.* at 10:1–3. Toshio teaches that when the date changes, the call receiver automatically changes the receipt time for a

message to indicate that it was received the previous day, such as by adding a simple mark. Pet. 20–21, 28; Ex. 1007, 230–231. Other than the arguments discussed above for claims 1 and 9, Patent Owner does not dispute that the combination of Appelman and Toshio teaches the limitation of claims 4 and 12.

6. *Claims 5 and 13*

Claim 5 depends from claim 1, and recites “wherein at least one of the first time information and the second time information comprises a relative time.” Ex. 1001, 8:65–67. Claim 13 depends from claim 9, and recites a similar limitation. *Id.* at 10:4–6. Toshio teaches that when the date changes, the call receiver automatically changes the receipt time for a message to indicate that it was received the previous day (i.e., a relative time), such as by adding a simple mark. Pet. 20–21, 29; Ex. 1007, 230–231. Other than the arguments discussed above for claims 1 and 9, Patent Owner does not dispute that the combination of Appelman and Toshio teaches the limitation of claims 5 and 13.

7. *Reasons for Combining Appelman and Toshio*

Petitioner argues that a person of ordinary skill in the art would have had reason to combine the cited teachings of Appelman and Toshio. Pet. 21–26 (citing Ex. 1002 ¶¶ 44–51). We agree with and adopt Petitioner’s reasoning. Specifically, Appelman and Toshio relate to the same field of endeavor as the ’149 patent, namely, message communications. Pet. 25; Ex. 1001, Abstract, 1:20–24; Ex. 1002 ¶ 50; Ex. 1007, 230 (“[T]he objective of the present invention is to provide a selective call receiver with a display function useful when displaying an incoming message on a day after the message was received.”); Ex. 1012, 1:6–8. Appelman and Toshio also are

reasonably pertinent to a particular problem with which the inventors of '149 patent are involved, namely, improving the indication of time information for message communications. Pet. 25–26; Ex. 1001, 7:37–50, 8:26–33; Ex. 1002 ¶ 50; Ex. 1007, 230 (“[W]hen a message is read after several incoming calls are received over several days, [the message] is displayed in a state where it is impossible for a user to know which date the incoming call time belongs to.”); Ex. 1012, 16:23–17:4.

It would have been obvious to modify Appelman so that the absolute time stamp for an instant message automatically changes to include an indication of the number of elapsed days as taught by Toshio. Pet. 21; Ex. 1002 ¶ 44. Specifically, a person of ordinary skill in the art would have recognized that including an indication of the number of elapsed days would have improved the usefulness and convenience of Appelman’s absolute time stamp. Pet. 21; Ex. 1002 ¶ 44. For example, Appelman’s absolute time stamp initially would have allowed a user to determine when a message was sent or received. Pet. 22; Ex. 1002 ¶ 46. However, when the date changes, Appelman’s absolute time stamp (e.g., 07:34:57) may not provide the user with sufficient temporal context. Pet. 22; Ex. 1002 ¶ 46; Ex. 1012, Fig. 12. Thus, a person of ordinary skill in the art would have recognized the benefit of adding an indication of the number of elapsed days for a message received on a previous day. Pet. 22–23; Ex. 1002 ¶ 46.

Further, the combination of Appelman and Toshio would have been within the capabilities of a person of ordinary skill in the art. Pet. 23–24; Ex. 1002 ¶ 47. Appelman teaches displaying an absolute time stamp for an instant message in a conversation. Pet. 17–19; Ex. 1012, 16:25–17:4, 18:2–22, Fig. 12. Thus, a person of ordinary skill in the art would have

recognized that Appelman would only need to be modified to incorporate Toshio's teaching of automatically changing an absolute time to include an indication of the number of elapsed days for a message received on a previous day. Pet. 23–24; Ex. 1002 ¶ 47. That modification would have been straightforward for a person of ordinary skill in the art. Pet. 24; Ex. 1002 ¶ 48.

Patent Owner responds that a person of ordinary skill in the art would not have combined Appelman and Toshio because they are directed to different contexts. PO Resp. 39–43. Specifically, Patent Owner argues that Appelman relates to a dynamic, urgent, and interactive instant messaging system, whereas Toshio relates to reporting days-old telephone messages. *Id.* at 40 (citing Ex. 2007 ¶¶ 61–68).

Patent Owner's argument is not persuasive. "The Supreme Court's decision in *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398 . . . (2007), directs us to construe the scope of analogous art broadly." *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1238 (Fed. Cir. 2010). As such, "[t]he field of endeavor of a patent is not limited to the specific point of novelty, the narrowest possible conception of the field, or the particular focus within a given field." *Unwired Planet, LLC v. Google Inc.*, 841 F.3d 995, 1001 (Fed. Cir. 2016). As discussed above, the field of endeavor for the '149 patent is message communications. Ex. 1001, Abstract, 1:20–24; Ex. 1002 ¶ 50. Although Appelman focuses particularly on instant messages and Toshio focuses particularly on telephone messages, Appelman and Toshio both are directed to the same field of endeavor as the '149 patent, namely, message communications. Ex. 1007, 230 ("[T]he objective of the present invention is to provide a selective call receiver with a display function useful when

displaying an incoming message on a day after the message was received.”); Ex. 1012, 1:6–8. Moreover, as discussed in more detail below, Appelman describes an instant messaging session in which messages are exchanged over the course of several hours, and, as such, Appelman is not limited to urgent instant messaging. Ex. 1012, 10:9–22, Fig. 9. Thus, we are not persuaded by Patent Owner’s argument that a person of ordinary skill in the art would not have combined Appelman and Toshio due to their “vastly different contexts.” PO Resp. 40.

Patent Owner also responds that Petitioner’s reason for combining Appelman and Toshio is derived from hindsight. PO Resp. 43–47. Specifically, Patent Owner argues that “Petitioner does not point to any disclosure in Appelman that would prompt one of ordinary skill in the art to be concerned about days-old messages, nor any disclosure in Toshio that would teach one of ordinary skill that instant messaging would have a similar problem.” *Id.* at 45. Further, according to Patent Owner, Toshio’s system of reporting days-old telephone messages has no applicability to Appelman’s system that is “usable only when a user is logged in and using their computer.” *Id.* at 41–43 (citing Ex. 2007 ¶¶ 48–54, 61–70). Thus, Patent Owner contends that Petitioner “seeks to solve a ‘problem’ with Appelman that it does not justify in the context of that reference,” and “Petitioner’s motivation instead appears inspired by the ’149 patent’s disclosure of the invention.” PO Resp. 45–46.

Patent Owner’s argument is not persuasive. Even if Appelman requires a user to be logged in to its instant messaging system to send or receive a message, we are not apprised of any portion of Appelman that limits the duration of an instant messaging session. *See id.* at 39–47. In fact,

Appelman describes an instant messaging session in which one message was sent or received at 6:34:11 and another message was sent or received at 13:10:23, which indicates that the instant messaging session lasted over six hours. Ex. 1012, 10:9–22, Fig. 9. As a result, a person of ordinary skill in the art would have recognized that a user of Appelman’s instant messaging system could have encountered the problem of receiving messages during a time period that spans different days. Pet. 22–23; Ex. 1002 ¶ 46; Ex. 1007, 230. And, as discussed above, a person of ordinary skill in the art would have recognized the benefit of modifying Appelman’s absolute time stamp to automatically add an indication of the number of elapsed days for a message received on a previous day. Pet. 22–23; Ex. 1002 ¶ 46; Ex. 1007, 230 (“[W]hen a message is read after several incoming calls are received over several days, [the message] is displayed in a state where it is impossible for a user to know which date the incoming call time belongs to.”).

8. *Summary*

For the reasons discussed above, we determine that Petitioner has shown by a preponderance of the evidence that claims 1–5, 9–13, and 17 would have been obvious over Appelman and Toshio.

D. *Obviousness of Claims 1, 5–7, 9, 13–15, and 17 over Appelman and Milton*

Petitioner argues that claims 1, 5–7, 9, 13–15, and 17 would have been obvious over Appelman and Milton. Pet. 2. We have considered the parties’ arguments and supporting evidence, and we determine that Petitioner has shown by a preponderance of the evidence that claims 1, 5–7, 9, 13–15, and 17 would have been obvious over Appelman and Milton.

1. *Overview of Milton*

Milton relates to “a message retrieval system which reports an associated time with each message retrieved by the subscriber from his mailbox.” Ex. 1006, 1:6–9. Milton explains that if a message was received less than 24 hours ago, the message retrieval system converts the associated time for that message into an elapsed time, namely, the number of hours and minutes since the message was received. *Id.* at 1:60–61, 3:54–4:1. On the other hand, if a message was received more than 24 hours ago, the message retrieval system converts the associated time for that message into an absolute time, namely, the month and day the message was received. *Id.* at 1:67–2:4, 4:9–13.

2. *Claims 1, 9, and 17*

Claim 1 recites “[a] method of displaying an instant messaging conversation on a display of an electronic device, the method comprising: displaying a conversation of instant messages.” Ex. 1001, 8:48–51. Appelman teaches an electronic device that displays a conversation of instant messages. Pet. 15–17, 37; Ex. 1012, 1:27–31, 2:12–18, 7:14–15, 20:3–22, Fig. 19. Patent Owner does not dispute that the combination of Appelman and Milton teaches the above limitation of claim 1.

Claim 1 recites “displaying a first time information for an instant message in the conversation in response to a first input,” and “automatically changing the first time information for the instant message to a second time information as time progresses and displaying the second time information instead of the first time information.” Ex. 1001, 8:52–57. Appelman teaches displaying a time stamp for an instant message in a conversation in response to a user sending or receiving a message (i.e., a first input). Pet.

17–19, 37–38; Ex. 1002 ¶ 41; Ex. 1012, 16:25–17:4, 18:2–22, Fig. 12. Milton teaches automatically changing an elapsed time that provides a number of hours and minutes (i.e., first time information) for a message received less than 24 hours ago to an absolute time that provides a month and day (i.e., second time information) when the message was received more than 24 hours ago. Pet. 38–39, 42–43; Ex. 1006, 1:60–61, 1:67–2:4, 3:54–4:13.

Patent Owner responds that Milton does not teach automatically changing and displaying time information as time progresses.¹¹ PO Resp. 27–33. First, Patent Owner argues that Milton “does not disclose ‘*displaying*’ anything—its only output is audio.” *Id.* at 29. As such, according to Patent Owner, “there is no time information to change—the previous report was an audio signal, and that audio signal is not ‘changed’ based on a new time report.” *Id.* at 32. Patent Owner’s argument is not persuasive because it addresses Milton individually, not the combination of Appelman and Milton proposed by Petitioner. *See Keller*, 642 F.2d at 426 (“[O]ne cannot show non-obviousness by attacking references individually where, as here, the rejections are based on combinations of references.”). As discussed above, Appelman teaches *displaying* a time stamp for an instant message in a conversation (Ex. 1012, 16:25–17:4, 18:2–22, Fig. 12), and Milton teaches automatically *changing* an elapsed time for a message to an absolute time when the message was received more than 24 hours ago (Ex.

¹¹ Because Petitioner has shown sufficiently that the combination of Appelman and Milton teaches the limitations of claim 1, we do not address what Patent Owner refers to as Petitioner’s “backup” argument regarding the background knowledge and perspective of a person of ordinary skill in the art. *See* PO Resp. 33–38.

1006, 1:60–61, 1:67–2:4, 3:54–4:13). Petitioner asserts that it would have been obvious to modify Appelman’s time stamp to display an elapsed time initially and to automatically change to an absolute time when the message was received more than 24 hours ago as taught by Milton. Pet. 39–40, 42–43; Ex. 1002 ¶¶ 74, 79. Thus, even if Milton only teaches automatically changing time information as time progresses, the combination of Appelman and Milton teaches automatically changing *and* displaying time information as time progresses. Pet. 39–40, 42–43; Ex. 1002 ¶¶ 74, 79.

Second, Patent Owner argues that “[t]he only scenario where Milton discloses ‘*changing*’ the 32-bit timestamp from its absolute value to a relative value is as part of the user’s manual message retrieval.” PO Resp. 29. According to Patent Owner, “a user manually invoking a ‘retrieval module’ is not the same as ‘*automatically changing the first time information . . . to a second time information as time progresses.*’” *Id.* at 30 (citing Ex. 2007 ¶¶ 72–73). Patent Owner’s argument is not persuasive. As discussed above, we clarify that the term “automatically” only applies to the specific operations of changing and displaying time information, and that other prior operations can be manually initiated. *See supra* Section II.B.1. Milton teaches that a user manually accesses the message retrieval system to retrieve a message (Ex. 1006, 3:48–54), but Milton does not teach that the user manually initiates changing an elapsed time to an absolute time. Rather, Milton teaches that the elapsed time automatically changes to an absolute time when a message was received more than 24 hours ago. *Id.* at 1:60–61, 1:67–2:4, 3:54–4:13.

Third, Patent Owner argues that “Milton discloses reporting a message’s time stamp exactly once, without delay when the user requests

playback of their messages,” and, thus, “[t]here is no disclosure of this time stamp being played back again absent a subsequent, manually initiated request to playback the user’s messages.” PO Resp. 32 (citing Ex. 2006, 162:13–163:12, 165:22–166:22). Patent Owner’s argument again is not persuasive because it addresses Milton individually, not the combination of Appelman and Milton proposed by Petitioner. *See Keller*, 642 F.2d at 426 (“[O]ne cannot show non-obviousness by attacking references individually where, as here, the rejections are based on combinations of references.”). As discussed above, Petitioner asserts that it would have been obvious to modify Appelman’s time stamp to display an elapsed time initially and to automatically change to an absolute time when the message was received more than 24 hours ago as taught by Milton. Pet. 39–40, 42–43; Ex. 1002 ¶¶ 74, 79. Thus, in the combination of Appelman and Milton, the displayed elapsed time (i.e., first time information) automatically changes to an absolute time (i.e., second time information) when the message was received more than 24 hours ago (i.e., as time progresses). Pet. 39–40, 42–43; Ex. 1002 ¶¶ 74, 79.

Independent claims 9 and 17 recite limitations similar to those discussed above for claim 1. Ex. 1001, 9:9–22, 10:15–25. Other than the arguments discussed above for claim 1, Patent Owner does not raise any arguments specific to claims 9 and 17.

3. *Claims 5 and 13*

Claim 5 depends from claim 1, and recites “wherein at least one of the first time information and the second time information comprises a relative time.” *Id.* at 8:65–67. Claim 13 depends from claim 9, and recites a similar limitation. *Id.* at 10:4–6. In the combination of Appelman and Milton, the

displayed first time information is an elapsed time. Pet. 38–40, 42–43, 45–46; Ex. 1002 ¶¶ 74, 79, 85; Ex. 1006, 1:60–61, 1:67–2:4, 3:54–4:13. Other than the arguments discussed above for claims 1 and 9, Patent Owner does not dispute that the combination of Appelman and Milton teaches the limitation of claims 5 and 13.

4. *Claims 6 and 14*

Claim 6 depends from claim 5, and recites “wherein the second time information comprises an absolute time after expiration of a predetermined duration of time.” Ex. 1001, 9:1–3. Claim 14 depends from claim 13, and recites a similar limitation. *Id.* at 10:7–9. In the combination of Appelman and Milton, the displayed elapsed time (i.e., first time information) automatically changes to an absolute time (i.e., second time information) when the message was received more than 24 hours ago. Pet. 38–40, 42–43, 46; Ex. 1002 ¶¶ 74, 79, 86; Ex. 1006, 1:60–61, 1:67–2:4, 3:54–4:13. Other than the arguments discussed above for claims 1 and 9, Patent Owner does not dispute that the combination of Appelman and Milton teaches the limitation of claims 6 and 14.

5. *Claims 7 and 15*

Claim 7 depends from claim 1, and recites “wherein the first time information is displayed for only a predetermined duration of time.” Ex. 1001, 9:4–5. Claim 15 depends from claim 9, and recites a similar limitation. *Id.* at 10:10–12. In the combination of Appelman and Milton, the elapsed time (i.e., first time information) is displayed only when a message was received less than 24 hours ago. Pet. 38–40, 42–43, 46–47; Ex. 1002 ¶¶ 74, 79, 87; Ex. 1006, 1:60–61, 1:67–2:4, 3:54–4:13. Other than the arguments discussed above for claims 1 and 9, Patent Owner does not

dispute that the combination of Appelman and Milton teaches the limitation of claims 7 and 15.

6. *Reasons for Combining Appelman and Milton*

Petitioner argues that a person of ordinary skill in the art would have had reason to combine the cited teachings of Appelman and Milton. Pet. 37–45 (citing Ex. 1002 ¶¶ 72–84). We agree with and adopt Petitioner’s reasoning. Specifically, Appelman and Milton relate to the same field of endeavor as the ’149 patent, namely, message communications. Pet. 41; Ex. 1001, Abstract, 1:20–24; Ex. 1002 ¶ 76; Ex. 1006, 1:6–9; Ex. 1012, 1:6–8. Appelman and Milton also are reasonably pertinent to a particular problem with which the inventors of ’149 patent are involved, namely, improving the indication of time information for message communications. Pet. 41; Ex. 1001, 7:37–50, 8:26–33; Ex. 1002 ¶ 76; Ex. 1006, 1:51–2:4; Ex. 1012, 16:23–17:4.

It would have been obvious to modify Appelman’s time stamp to display an elapsed time (rather than an absolute time) initially for a sent or received message as taught by Milton. Pet. 39–40; Ex. 1002 ¶ 74. Specifically, a person of ordinary skill in the art would have recognized that displaying an elapsed time initially would have allowed a user to quickly determine a course of action because the user would not have to count back from the current time to determine how long ago a message was sent or received. Pet. 39–40; Ex. 1002 ¶ 74. It also would have been obvious to modify Appelman’s time stamp to automatically change from an elapsed time to an absolute time when the message was sent or received more than 24 hours ago as taught by Milton. Pet. 42–43; Ex. 1002 ¶¶ 78–80. In particular, a person of ordinary skill in the art would have recognized that, as

time progresses, displaying an absolute time instead of an elapsed time would have made it easier for a user to determine when a message was sent or received. Pet. 42–43; Ex. 1002 ¶ 80.

Further, the combination of Appelman and Milton would have been within the capabilities of a person of ordinary skill in the art. Pet. 40–41, 43–44; Ex. 1002 ¶¶ 75, 81. Appelman teaches displaying a time stamp for an instant message in a conversation. Pet. 17–19; Ex. 1012, 16:25–17:4, 18:2–22, Fig. 12. Thus, a person of ordinary skill in the art would have recognized that Appelman would only need to be modified to incorporate Milton’s teaching of automatically changing an elapsed time to an absolute time based on a predetermined time interval, such as a 24-hour time interval. Pet. 40–41, 43–44; Ex. 1002 ¶¶ 75, 81. That modification would have been straightforward for a person of ordinary skill in the art. Pet. 40–41, 43–44; Ex. 1002 ¶¶ 75, 81.

Patent Owner responds that Milton is not analogous art with respect to the ’149 patent. PO Resp. 47–52. First, Patent Owner argues that Milton is not from the same field of endeavor as the ’149 patent. *Id.* at 48–50. Specifically, Patent Owner contends that the field of endeavor for the ’149 patent is graphical user interfaces for mobile devices. *Id.* at 48 (citing Ex. 1001, 1:20–24, Figs. 4–10; Ex. 2006, 29:18–23; Ex. 2007 ¶ 75). According to Patent Owner, “Milton discloses a non-graphical voicemail system, with no discussion of electronic devices or mobile devices with displays at all.” PO Resp. 48 (citing Ex. 1006, 1:6–26).

Patent Owner’s argument is not persuasive. As discussed above, “[t]he Supreme Court’s decision in *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398 . . . (2007), directs us to construe the scope of analogous art

broadly.” *Wyers*, 616 F.3d at 1238. As such, “[t]he field of endeavor of a patent is not limited to the specific point of novelty, the narrowest possible conception of the field, or the particular focus within a given field.”

Unwired Planet, 841 F.3d at 1001. As Patent Owner points out, portions of the ’149 patent describe a “handheld electronic device.” Ex. 1001, 1:20–22, 2:16–17. But other portions of the specification, as well as the claims, describe an “electronic device” more generally, and, thus, are not limited to a handheld or mobile device. *Id.* at 2:33–3:7, 8:48–57, 9:9–22, 10:15–25; Ex. 1018, 77:25–78:8; Tr. 53:20–54:1. Further, the ’149 patent broadly relates to “a method for providing information representative of the times of certain communications in a messaging environment.” Ex. 1001, 1:22–24; *see id.* at 2:17–20. Milton similarly relates to “report[ing] an associated time with each message retrieved by the subscriber from his mailbox.” Ex. 1006, 1:6–9. As a result, we determine that Milton and the ’149 patent both are in the field of message communications.¹² Ex. 1002 ¶ 76; *see Unwired Planet*, 841 F.3d at 1001 (“Here, both Galitz and the ’205 patent are in the field of interface design, with Galitz focusing on graphical user interfaces and the ’205 patent focusing on interfaces for location-based services.”).

Second, Patent Owner argues that Milton is not reasonably pertinent to the particular problem with which the inventors of the ’149 patent are involved. PO Resp. 50–52. Patent Owner contends that the particular

¹² Patent Owner argues that Petitioner’s definition of the level of ordinary skill in the art limits the field of endeavor of the ’149 patent to graphical user interfaces. PO Resp. 49 (citing Pet. 5). Patent Owner, however, acknowledged at the oral hearing that Petitioner identifies graphical user interfaces only as an *example* of a field in which a person of ordinary skill in the art may have had experience. Tr. 55:3–7.

problem that concerned the inventors of the '149 patent was providing time information in a messaging environment using the limited space available on the display of a handheld electronic device. *Id.* at 50–51 (citing Ex. 1001, 1:65–2:5, 7:37–8:36; Ex. 2007 ¶ 77). Patent Owner alleges that Milton is not concerned “with the limited space available on the displays of handheld electronic devices,” but, rather, addresses “the problem of messages being received in or from different time zones.” PO Resp. 51 (citing Ex. 1006, 1:12–61; Ex. 2007 ¶ 78).

Patent Owner’s argument is not persuasive. As Patent Owner points out, portions of the '149 patent describe providing time information using the limited space available on the display of a “handheld electronic device.” Ex. 1001, 1:67–2:5. But, again, other portions of the specification, as well as the claims, describe an “electronic device” more generally, and, thus, are not limited to a handheld or mobile device. *Id.* at 2:33–3:7, 8:48–57, 9:9–22, 10:15–25; Ex. 1018, 77:25–78:8; Tr. 53:20–54:1. Further, the '149 patent states that the inventors are involved with providing “an improved method of providing an output” of time information that “provide[s] to the user an expedited understanding of the timing aspects of the message.” Ex. 1001, 2:33–3:7, 8:26–33. Milton similarly explains that “the value of the time associated and reported with each message retrieved by the subscriber will be diminished without the benefit of the present invention.” Ex. 1006, 3:9–12. As a result, we determine that Milton is reasonably pertinent to a particular problem with which the inventors of '149 patent are involved, namely, improving the indication of time information for message communications. Ex. 1002 ¶ 76.

Patent Owner also responds that Appelman and Milton are directed to different contexts because Appelman relates to a dynamic, urgent, and interactive instant messaging system, whereas Milton relates to reporting days-old telephone messages. PO Resp. 52–53 (citing Ex. 2007 ¶¶ 82–83). Further, Patent Owner argues that Petitioner’s combination seeks “to solve a problem with Appelman that it does not justify in the context of that reference” and is “inspired by the ’149 patent’s disclosure instead of the evidence of record.” PO Resp. 53–54 (citing Ex. 2007 ¶¶ 84–90).

Patent Owner’s argument is not persuasive. As discussed above, the field of endeavor for the ’149 patent is message communications. Ex. 1001, Abstract, 1:20–24; Ex. 1002 ¶ 76. Although Appelman focuses particularly on instant messages and Milton focuses particularly on telephone messages, Appelman and Milton both are directed to the same field of endeavor as the ’149 patent, namely, message communications. Ex. 1006, 1:6–9; Ex. 1012, 1:6–8. Further, even if Appelman requires a user to be logged in to its instant messaging system to send or receive a message, we are not apprised of any portion of Appelman that limits the duration of an instant messaging session. See PO Resp. 52–54. In fact, Appelman describes an instant messaging session in which one message was sent or received at 6:34:11 and another message was sent or received at 13:10:23, which indicates that the instant messaging session lasted over six hours. Ex. 1012, 10:9–22, Fig. 9. Thus, a person of ordinary skill in the art would have recognized that a user of Appelman’s instant messaging system could have encountered the problem of receiving messages over an extended period of time. Pet. 42–43; Ex. 1002 ¶¶ 78–80. And, a person of ordinary skill in the art would have recognized that, as time progresses, displaying an absolute time instead of an

elapsed time would have made it easier for a user to determine when a message was sent or received. Pet. 42–43; Ex. 1002 ¶ 80.

7. *Summary*

For the reasons discussed above, we determine that Petitioner has shown by a preponderance of the evidence that claims 1, 5–7, 9, 13–15, and 17 would have been obvious over Appelman and Milton.

E. *Obviousness of Claims 8 and 16 over Appelman, Toshio, and MacPhail; and Appelman, Milton, and MacPhail*

Petitioner argues that claims 8 and 16 would have been obvious over 1) Appelman, Toshio, and MacPhail; and 2) Appelman, Milton, and MacPhail. Pet. 2–3. We have considered the parties’ arguments and supporting evidence, and we determine that Petitioner has shown by a preponderance of the evidence that claims 8 and 16 would have been obvious over 1) Appelman, Toshio, and MacPhail; and 2) Appelman, Milton, and MacPhail.

Claim 8 depends from claim 1, and recites “wherein the first input comprises detecting a pointing device in proximity to the instant message.” Ex. 1001, 9:6–8, Certificate of Correction. Claim 16 depends from claim 9, and recites a similar limitation. *Id.* at 10:12–14. MacPhail teaches displaying a time stamp when a user positions a pointer over an object. Pet. 49; Ex. 1009, 9:66–10:11. Further, a person of ordinary skill in the art would have had reason to combine the cited teachings of MacPhail with Appelman (and Toshio or Milton) because hiding a time stamp until requested by the user would have avoided “unnecessarily cluttering” screen space on Appelman’s electronic device. Pet. 49–50; Ex. 1002 ¶¶ 93–94. Patent Owner does not raise any specific arguments relating to claims 8 and 16. We determine that Petitioner has shown by a preponderance of the

evidence that claims 8 and 16 would have been obvious over 1) Appelman, Toshio, and MacPhail; and 2) Appelman, Milton, and MacPhail.

III. CONCLUSION

Petitioner has shown by a preponderance of the evidence that claims 1–17 of the '149 patent are unpatentable.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that claims 1–17 of the '149 patent are shown 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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Patent 8,745,149 B2

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