

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AMAZON.COM, INC.,
AMAZON.COM SERVICES LLC,
AMAZON WEB SERVICES, INC., and
TWITCH INTERACTIVE, INC,
Petitioners,

v.

NL GIKEN INC,
Patent Owner.

IPR2024-01161
Patent 9,319,615 B2

Before MICHELLE N. WORMMEESTER, JOHN F. HORVATH, and
ANDREW L. NALVEN, *Administrative Patent Judges*.

NALVEN, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

Amazon.com Inc., Amazon.com Services LLC, Amazon Web Services, Inc., and Twitch Interactive, Inc. (collectively, “Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting *inter partes* review of claims 1–16 of U.S. Patent No. 9,319,615 B2 (Ex. 1001, “the ’615 patent”). NL Giken Inc. (“Patent Owner”) filed a Preliminary Response (Paper 8, “Prelim. Resp.”).

We have authority under 35 U.S.C. § 314 and 37 C.F.R. § 42.4(a). Pursuant to 35 U.S.C. § 314(a), an *inter partes* review may not be instituted “unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” After considering the Petition, the Preliminary Response, and associated evidence, we determine that Petitioner has demonstrated a reasonable likelihood of prevailing in demonstrating the unpatentability of at least one claim of the ’615 patent. Accordingly, we institute an *inter partes* review.

II. BACKGROUND

A. *Real Parties in Interest*

Petitioner identifies Amazon.com, Inc., Amazon.com Services, Inc., and Twitch Interactive, Inc. as real parties in interest. Pet. 73. Patent Owner identifies itself as real party in interest. Paper 4, 1 (Patent Owner’s Mandatory Notice).

B. *Related Proceedings*

The parties identify the following related district court cases: *NL Giken Inc. v. Apple Inc.*, No. 1:24-cv-00013 (D. Del.), and *NL Giken Inc. v. Amazon.com, Inc.*, No. 1:24-cv-00028 (D. Del.). See Pet. 73; Paper 4, 2.

C. The '615 Patent

The '615 patent describes a television system including a television set with a communication function for exchanging information to allow families in different homes to share experiences. Ex. 1001, 1:16–18, 5:43–46. The '615 patent describes first and second television sets communicating using a broadband connection. *Id.* at 6:27–32. Figure 1, reproduced below, illustrates the television set system. *Id.* at 4:32–33.

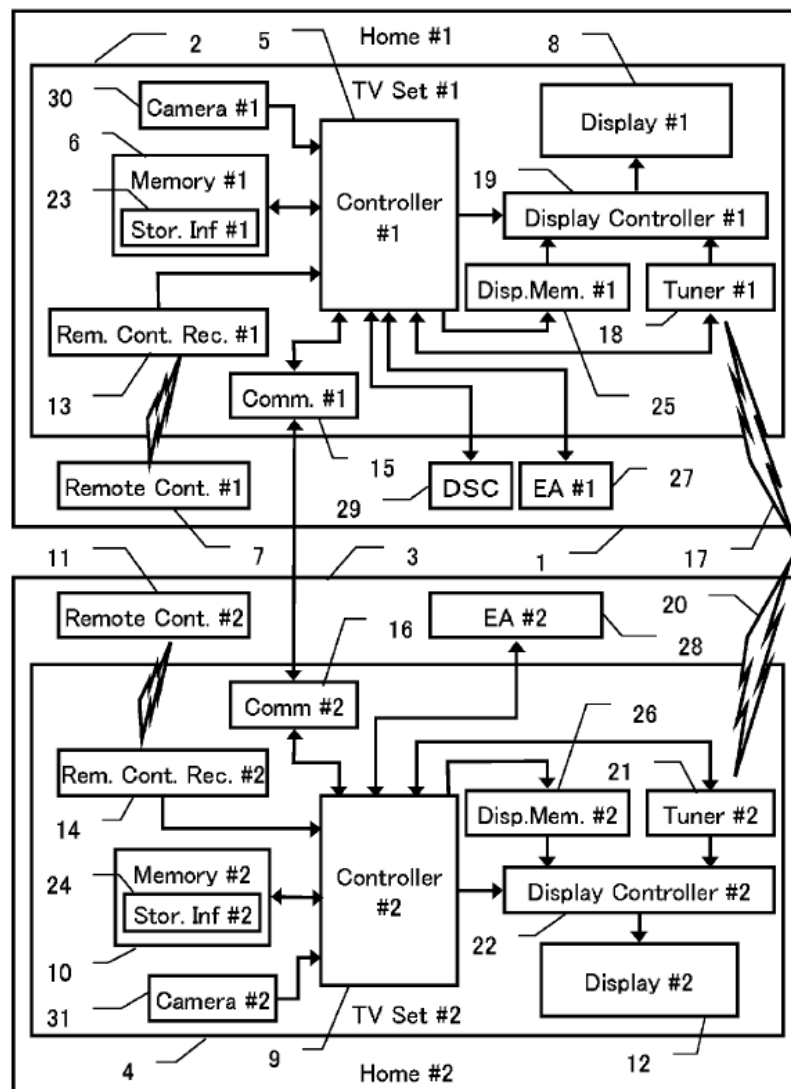


Fig.1

Figure 1 depicts first television set 2 and second television set 4. *Id.* at 5:27–31. The television sets communicate over a broadband connection via communicators 15 and 16. *Id.* at 6:27–32. Referring to television set 2 as exemplary, the '615 patent describes each television set as including a memory 6 storing television programs received over airwaves 17 or downloaded from the internet using communicator 15. *Id.* at 6:45–50. Memory 6 further includes first storage information 23 for storing e-mail received from television set 4 in second home 3. *Id.* at 6:51–53.

According to the '615 patent, television sets 2 and 4 automatically send an e-mail to each other indicating when a television is turned on or off and when a channel is changed. Ex. 1001, 6:66–7:3. The e-mails are automatically read and stored in first and second storage information 23 or 24. *Id.* at 7:3–5. Figure 2, reproduced below, illustrates the display of a television set. *Id.* at 4:34–36.

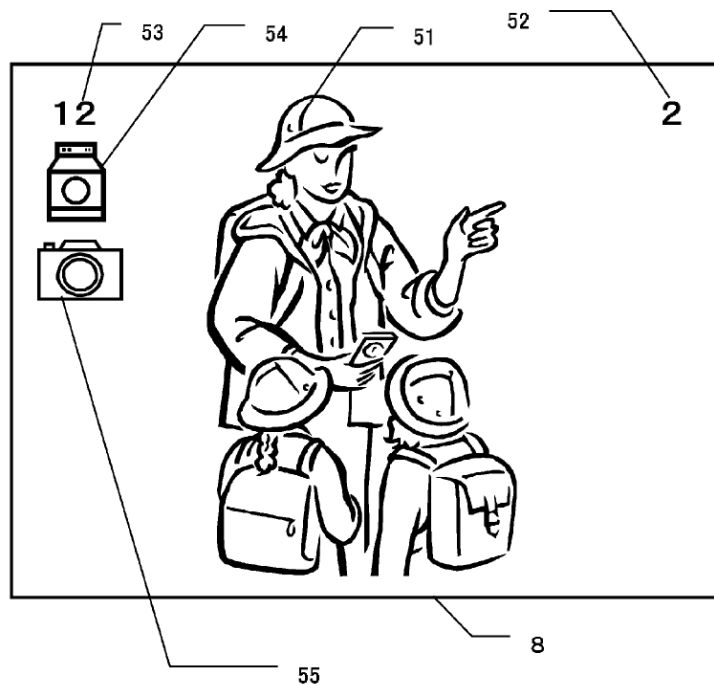


Fig.2

Figure 2 illustrates first display 8 on television set 2. *Id.* at 9:24–29. First display 8 shows broadcast program 51. *Id.* at 9:24–25. In the upper-right corner, first display 8 indicates channel number 52 that corresponds to the currently displayed broadcast program 51. *Id.* at 9:25–29. The upper-left corner of first display 8 provides information relating to television set 4 in second home 3 including channel number 53, electric appliance icon 54, and camera icon 55. *Id.* at 9:39–44, 9:49–52, 9:64–66. For example, first display 8 indicates that television set 4 in home 3 is tuned to channel 12, the washing machine in home 3 is currently working, and that photographs were sent from home 1 to home 3 but that home 3 has yet to send an email indicating that the photographs have been viewed. *Id.* at 9:30–34, 9:49–52, 9:64–10:1. The ’615 patent explains that by exchanging information, “both the families can mutually confirm their doing well,” and “feel themselves as if they are a company in the same room if they mutually know that they are sharing the same television program.” *Id.* at 7:12–16.

D. Illustrative Claim

Petitioner challenges claims 1–16 of the ’615 patent, where claims 1, 4, and 8 are independent claims. Claim 1 is illustrative of the claimed invention and is reproduced below with Petitioner’s labeling of elements in brackets.

1. [1.pre] A television set system comprising:
 - [1.a] a television function unit;
 - [1.b] a display arranged to display a broadcast program in accordance with the television function unit;
 - [1.c] a receiver arranged to receive, without request or acknowledgement, information of one definite broadcast program which can be displayed on the display and is identified

by a channel selection of another television set in another place;
and

[1.d] a manual controller arranged to change the display in response to a predetermined same manual operation from own motive of a viewer of the display on the basis of the information received by the receiver, the predetermined same manual operation from own motive having no influence on the channel selection of the another television set, but having influence solely on the change in the display of the own television set into the one definite broadcast program identified by the channel selection of the another television set with the information received by the receiver,

[1.e] wherein the information includes information of a broadcast program which is currently not displayed on the display, but can be displayed by a channel change, and

[1.f] wherein the manual controller is arranged to instantly carry out replacement of the currently displayed broadcast program with the one definite broadcast program identified by the channel selection of the another television set in response to the predetermined same manual operation, the same manual operation being universal regardless of the information and without any channel selecting operation,

[1.g] whereby same experience as that of a viewer of the another television set is possible from own motive of the viewer by means of the manual controller.

Ex. 1001, 48:8–41; Paper 6, 1.

E. Asserted Challenges to Patentability

Petitioner challenges claims 1–16 of the '615 patent as follows.

Pet. 8–68.

Claims Challenged	35 U.S.C. § ¹	References/Basis
1–8	103	Cooper ^{2,3}
1–16	103	Cooper and Slotznick ⁴

In support of its challenge, Petitioner relies on a Declaration of Dr. Chandrajit Bajaj (Ex. 1002).

III. DISCUSSION

A. Principles of Law

“In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the 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

¹ The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284 (2011), amended 35 U.S.C. § 103 effective March 16, 2013. Because the application from which the ’615 patent issued claims priority before this date, the pre-AIA version of § 103 applies.

² Cooper et al., U.S. Publ’n No. 2004/0231003 A1, published November 18, 2004 (“Cooper,” Ex. 1004).

³ Petitioner separately references the knowledge of a person of ordinary skill in the art. Pet. 1. When analyzing whether claims would have been obvious and whether it would have been obvious to modify prior art, it is always from the perspective of an ordinarily skilled artisan and one must consider knowledge generally available to one of ordinary skill in the art. *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (one considers “the background knowledge possessed by a person having ordinary skill in the art”). The knowledge of a person of ordinary skill in the art is, therefore, always a consideration and is not a separate basis in an obviousness challenge.

⁴ Slotznick, U.S. Publ’n No. 2001/0055951 A1, published December 27, 2001 (“Slotznick,” Ex. 1005).

shifts to the patent owner. *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015).

A claim is unpatentable under § 103(a) “if the differences between the subject matter sought to be patented 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.” 35 U.S.C. § 103(a); *see 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, objective indicia of non-obviousness (i.e., secondary considerations). *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).⁵

We consider Petitioner’s asserted challenges with the above-noted principles in mind.

B. Claim Construction

In an *inter partes* review proceeding, we construe a claim of a patent “using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. 282(b).” 37 C.F.R. § 42.100(b). That standard involves construing claims in accordance with the ordinary and customary meaning of such claims as would have been understood by one of ordinary skill in the art and the prosecution history pertaining to the patent. *See id.*; *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–14 (Fed. Cir. 2005) (en banc).

⁵ Neither party presents evidence of secondary considerations at this stage.

Petitioner proposes constructions for several claim terms. *See* Pet. 4–7. Patent Owner indicates that it “does not challenge Petitioners’ claim construction because the Petition fails regardless of the constructions adopted.” Prelim. Resp. 5.

Only those claim terms that are in controversy need to be construed, and only to the extent necessary to resolve the controversy. *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017). After reviewing the record, we determine that only the recitation “without request or acknowledgement” in claims 1, 4, and 8 requires express construction for purposes of this Decision.

Claim 1 recites in pertinent part “a receiver arranged to receive, *without request or acknowledgement*, information of one definite broadcast program which can be displayed on the display.” Ex. 1001, 48:8–41 (emphasis added). Independent claims 4 and 8 recite substantially similar limitations. *See id.* at 48:58–49:25, 49:47–50:32.

Addressing this limitation, Petitioner contends:

The limitation “without request or acknowledgement” is a qualifier for “receive . . . information of one definite broadcast program . . . identified by a channel selection of another television set in another place.” Accordingly, the limitation “without request or acknowledgement” is not a qualifier on other operations, such as an initial set up to establish a relationship between the claimed “television set system” and the “another television set in another place.”

Pet. 21.

Patent Owner “does not dispute that the claims can encompass devices utilizing *basic* communication handshake protocols.” Prelim. Resp. 6 n.4 (emphasis added). However, Patent Owner asserts that basic device

handshaking protocols would not include “a separate application program.”
Id. at 7.

On this record, we determine that the limitation “without request or acknowledgement” does not set forth any requirements as to a device handshaking process by which two devices agree to exchange information. Instead, we agree with Petitioner that “without request or acknowledgement” merely qualifies the step of “receiv[ing] . . . information of one definite broadcast program . . . identified by a channel selection of another television set in another place.” Pet. 21–22. Hence, the recitation of “without request or acknowledgement” only requires that a device receives information of one definite broadcast program from another device without requesting that information or acknowledging its reception.

Further, because the claim language only qualifies the step of receiving, it does not relate to device handshaking or restrict the type of device handshake by which one device determines the other devices to which it will send information and from which it will receive information. *See* Ex. 1001, 18:48–50. Petitioner’s proposed construction is consistent with the ’615 patent specification, which describes receiving information from another television as follows:

According to the above feature of this invention, the television display is automatically changed in response to the receipt of the information from a *predetermined* outside counterpart. Thus, any change in the *predetermined* outside counterpart is known on the own television set. The above function is also carried out on an existing communicator in the television set and automatically without any knowledge in addition to that in merely watching television.

Id. at 2:65–3:5 (emphases added). Then, separate from the above-quoted discussion of receiving information from another *predetermined* television

set, the '615 patent specification describes a device handshaking process for identifying that *predetermined* television set as “a process of setting the function relating to the automatic e-mail exchange between the o[n]e television set and the other television set.” *Id.* at 18:48–50. The '615 patent further discloses that a user may set the address for automatically sending e-mail at their own television (*id.* at 18:52–55) and may further “remotely control the second television set 4 to set the address for automatically sending e-mail.” *Id.* at 20:17–29.

Based on the foregoing, on this record, we determine that “without request or acknowledgement” requires that a device receives information of one definite program without issuing a request for that information or acknowledging its reception. We further determine that “without request or acknowledgement” does not relate to a device handshake process by which one device determines the other devices to which it will send information and from which it will receive information. The parties are invited to further address this claim construction issue during the course of trial.

C. Level of Ordinary Skill in the Art

Petitioner contends that a person of ordinary skill in the art (“POSITA”) would have had “a bachelor’s degree in electrical or computer engineering or a comparable field of study, plus approximately two to three years of professional experience with television and digital display systems, distributed multimedia communications, and networked computer systems, or other relevant industry experience.” Pet. 4 (citing Ex. 1002 ¶ 46). Patent Owner does not offer a position as to the level of ordinary skill in the art. *See generally* Prelim. Resp.

For purposes of this Decision, we adopt Petitioner’s assessment, which is consistent with the level of skill reflected in the Specification and asserted prior art.

D. Ground 1: Alleged Obviousness over Cooper and the Knowledge of a POSITA

Petitioner asserts that claims 1–8 of the ’615 patent would have been obvious over Cooper. Pet. 8–46. Patent Owner disagrees. Prelim. Resp. 6–17. For the reasons explained below, we determine that Petitioner has demonstrated a reasonable likelihood of prevailing in showing that claims 1–8 of the ’615 patent would have been obvious over Cooper and the knowledge of a POSITA.

Before addressing the parties’ arguments, we provide an overview of the Cooper reference.

1. Overview of Cooper

Cooper describes a television having an instant messaging user interface that indicates to a user the “television programming being viewed by [a] selected network user with which they are associated.” Ex. 1004, Abstract. Cooper’s television is connected to set-top box 500, which includes network communication card 514 for communicating with network server 506. *Id.* ¶ 39. Set-top box 500 receives TV signals from TV source 504 and includes tuner 510 to select a TV channel for viewing. *Id.* ¶ 38. Set-top box 500 “constructs a display that can include information received from the server 506 and/or from the TV source 504.” *Id.* ¶ 40. Set-top box 500 then sends the constructed display to a TV 502. *Id.*

Cooper further describes the display generated by set-top box 500 including TV-enhanced buddy list 1110 that shows the TV show or network

that each buddy 1108 of the TV user is watching. Ex. 1004 ¶ 60. Figure 11, reproduced below, illustrates the set-top box display including the TV-enhanced buddy list. *Id.* ¶¶ 33, 60.

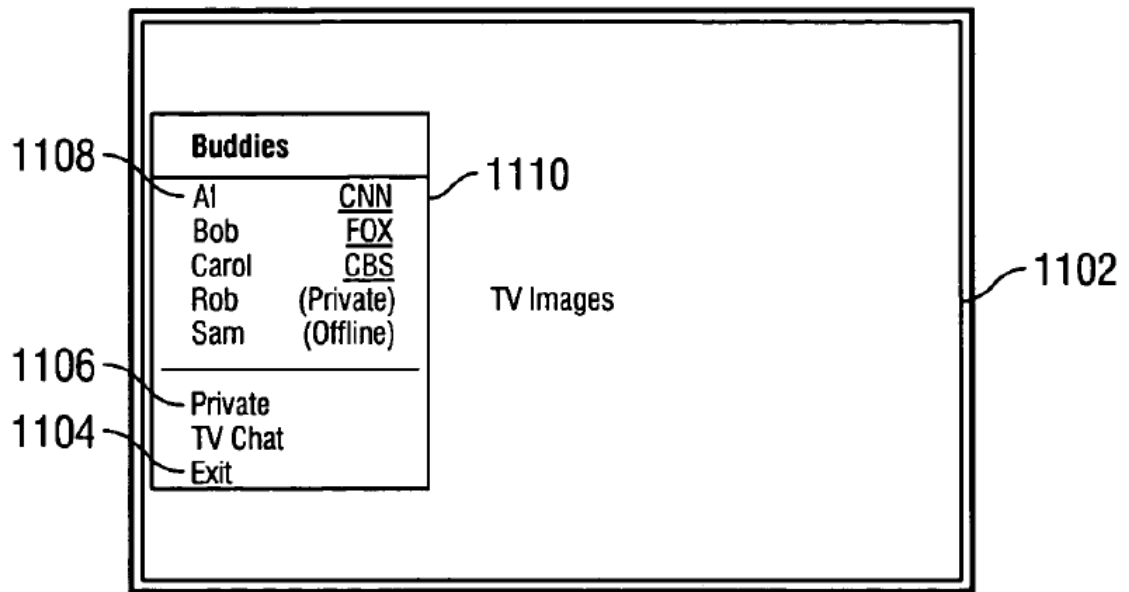


FIG. 11

Figure 11 depicts a display generated by set-top box 500 including TV program 1102 and TV-enhanced buddy list 1110. *Id.* ¶ 60. TV-enhanced buddy list 1110 shows the user watching the TV that is connected to set-top box 500 the TV show or network each listed buddy 1108 is watching. *Id.* According to Cooper, “the TV show and/or network 1110 can be displayed as a link . . . [b]y selecting the link, a user can watch the same show that a friend is watching.” *Id.*

Cooper describes a remote server hosting server data 1204 to provide the enhanced buddy list functions to networked set-top boxes such as set-top box 500. Ex. 1004 ¶ 61. According to Cooper, the server stores a buddy list 1208 for each user that is either permanently stored on the server 1204 or

transmitted to server 1204 by a set-top box when a user logs-on. *Id.*

Figure 12A, reproduced below, illustrates a flow diagram of the transmission of information to users on a buddy list. *Id.* ¶ 33.

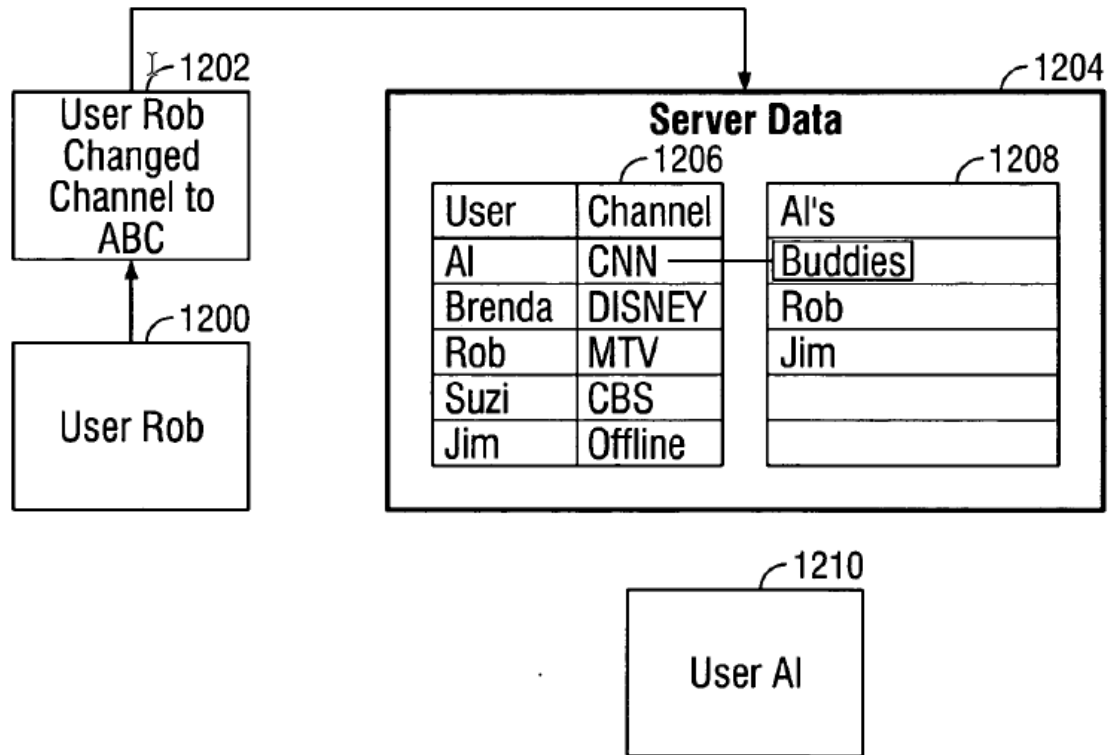


FIG. 12A

Figure 12A depicts server data 1204 including list 1206 of logged-in users and the TV show and/or network that each user is currently watching. *Id.* ¶ 61. Server data 1204 further stores a buddy list for each user, such as Al's buddy list 1208. *Id.* Figure 12A depicts step 1202 where “when a user changes channels, set-top box software transmits a message to the server including the name of the show and/or the network the user is presently viewing.” *Id.* In the depicted example, when User Rob changed their channel from MTV to ABC, Rob's set-top box sent the channel change information to the remote server. *Id.*, Fig. 12A, 1202.

Figure 12B, reproduced below, illustrates the server updating server data 1204, including user list 1206 to reflect the new viewing information, i.e., Rob’s channel change from MTV to ABC. Ex. 1004 ¶¶ 34, 61.

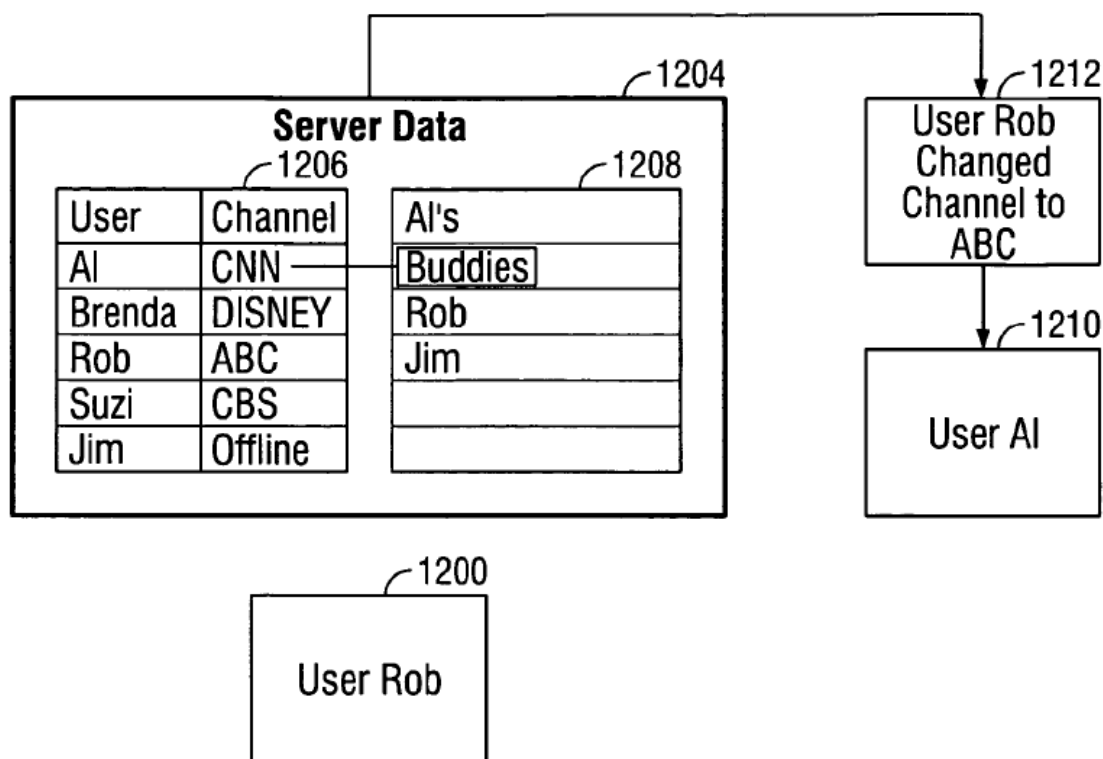


FIG. 12B

Figure 12B depicts steps 1210 and 1212, whereby the server informs User Al that User Rob on Al’s buddy list 1208 changed their channel to ABC. *Id.* ¶ 61. Cooper teaches that “[t]he server transmits a message 1212 to each logged-in user that included the channel changing user [i.e., Rob] in his or her [buddy] list.” *Id.*

2. Analysis of Independent Claims 1, 4, and 8

Claim 1 is directed to a “television set system.” Ex. 1001, 48:8–41. In addition to the preamble, which Petitioner designates as element 1.pre,

claim 1 recites various limitations, which Petitioner designates as limitations 1a through 1g. We address the preamble and each limitation in turn.

a. Claim 1

i. Preamble 1.pre

The preamble of claim 1 recites “a television set system.” Petitioner collectively identifies Cooper’s set-top box 500, television 502, and an input device such as mouse 103 as a television set system. Pet. 12 (citing Ex. 1004 ¶¶ 1, 3, 11, 38–40; Ex. 1002 ¶¶ 63–64).

Neither party takes a position on whether the preamble is limiting. At this stage of the proceeding, we do not determine whether the preamble is limiting, as we find Petitioner sufficiently shows that Cooper discloses the subject matter of the preamble.

ii. Limitation 1.a

Claim 1 further recites a “television function unit.” For this claim element, Petitioner identifies Cooper’s tuner 510 and analog-to-digital converter 512. Pet. 13 (citing Ex. 1004 ¶¶ 11, 38, 39, Figs. 1, 5, 6). According to Petitioner, Cooper’s tuner 510 and analog-to-digital converter 512 perform the functions of a television including receiving and processing television signals and turning to a particular channel. *Id.* at 13–14 (citing Ex. 1004 ¶¶ 11, 38, 65, 66, Fig. 5).

iii. Limitation 1.b

Claim 1 further recites “a display arranged to display a broadcast program in accordance with the television function unit.” For this claim element, Petitioner asserts that Cooper discloses a display in television 502 to display a broadcast program (e.g., TV show). Pet. 14 (citing Ex. 1004 ¶ 11, 14, 38–40, 44, 45, Figs. 5, 10; Ex. 1002 ¶¶ 68, 69). Petitioner contends

that set-top box 500 outputs a broadcast program for viewing on television 502's display. *Id.* (citing Ex. 1004 ¶ 14).

iv. *Limitation 1.c*

Claim 1 further recites “a receiver arranged to receive, without request or acknowledgement, information of one definite broadcast program which can be displayed on the display and is identified by a channel selection of another television set in another place.” For this claim element, Petitioner contends that Cooper discloses set-top box 500 with tuner 510 and communication card 514 arranged to receive information. Pet. 16 (Ex. 1004 ¶¶ 11, 39–50, 52, Figs. 5, 7).

Petitioner asserts that communication card 514 “communicate[s] with a network server 506 such as an ISP.” *Id.* at 17 (citing Ex. 1004 ¶ 39). Petitioner contends that “[t]he receiver is arranged to receive *information* (data 1202/1212) *of one definite broadcast program* (show) *which can be displayed* on the display (display in TV 502).” *Id.* at 17–18 (citing Ex. 1004 ¶¶ 60–63, Figs. 11, 12A–B, 14). Petitioner asserts that the enhanced buddy list 1208 shows the TV show and/or network 1110 each listed buddy 1108 is watching in the form of a link. *Id.* at 18 (Ex. 1004 ¶¶ 60–61, Fig. 11). Petitioner contends that “[d]ata 1202 is generated when user ‘Rob’ changes his channel in a first location and includes the information ‘ABC’—which is information of one definite broadcast program.” *Id.* (citing Ex. 1004 ¶ 61). According to Petitioner, after Rob changes his channel, “[t]he server then sends the updated server data (message 1212) to a second user (User Al) that is friends or buddies with the first user (Rob).” *Id.* at 18–19 (citing Ex. 1004 ¶ 63, Fig. 14). Petitioner, relying on the declaration testimony of Dr. Bajaj, contends that the updated server data is used to update the user's buddy list

such that the buddy list can display the show or network each user's buddies are currently watching. *Id.* at 19 (citing Ex. 1002 ¶ 75).

Petitioner asserts “the enhanced buddy list shows the TV show or network 1110 each listed buddy 1108 is watching” and “the TV show and/or network 1110 can be displayed as a link.” *Id.* (citing Ex. 1004 ¶¶ 60, 63; Ex. 1002 ¶ 76). Petitioner argues that the information of the one definite broadcast is displayed on the display because “Cooper’s buddy list 1110 can be displayed over TV program 1102 displayed via TV 502.” *Id.* (citing Ex. 1004 ¶ 60, Fig. 11). Petitioner further contends that one definite broadcast program is identified by a channel selection of another television in another place because “User Rob’s changing of channels triggered the message 1212 sent from server 506 to User Al.” *Id.* at 20 (citing Ex. 1004 ¶¶ 53, 61).

Petitioner further argues that Cooper discloses receiving information of the one definite broadcast program *without request or acknowledgement*. Pet. 21 (citing Ex. 1004 ¶¶ 39–42, 44–50, Figs. 5–7). Petitioner asserts that the limitation “without request or acknowledgement” is not a qualifier of initial set up operations between television sets. Hence, Petitioner contends that “without request or acknowledgement” only qualifies “receive . . . information of one definite broadcast program . . . identified by a channel selection of another television set in another place.” *Id.* Petitioner argues that “[w]ith this understanding in mind, Cooper does not mention any ‘request or acknowledgement’ with respect to receipt of a ‘message’ or information 1202/1212 corresponding to what a buddy is watching.” *Id.* Relying on the declaration testimony of Dr. Bajaj, Petitioner contends that “[a] POSITA would have understood and found it obvious that no ‘request

or acknowledgement’ is required to implement the buddy list updating process in Cooper.” *Id.* (citing Ex. 1004 ¶¶ 79–80).

v. *Limitation 1.d*

Claim 1 further recites

a manual controller arranged to change the display in response to a predetermined same manual operation from own motive of a viewer of the display on the basis of the information received by the receiver, the predetermined same manual operation from own motive having no influence on the channel selection of the another television set, but having influence solely on the change in the display of the own television set into the one definite broadcast program identified by the channel selection of the another television set with the information received by the receiver.

For limitation 1.d, Petitioner identifies a manual controller (mouse 103) and set-top box 500. Pet. 22–23 (citing Ex. 1004 ¶¶ 3, 11; Ex. 1002 ¶¶ 81–86). Petitioner contends that “[a]fter the viewer’s display shows a message/link indicating a channel change occurred on another computer . . . , the viewer clicking on the link will cause the viewer’s display to be updated to show the program/channel/network indicated in the message/link.” *Id.* at 23–25 (citing Ex. 1004 ¶¶ 50, 60 (“[b]y selecting the link, a user can watch the same show a friend is watching”), 149–150, Fig. 7, 704; Ex. 1002 ¶ 83).

Petitioner further asserts that Cooper does not mention that selection by a user of a buddy link has any influence on the television set of the buddy. *Id.* at 26 (citing Ex. 1004 ¶¶ 29, 42, 48, 50, 56, 60, Fig. 7). Petitioner, relying on the declaration testimony of Dr. Bajaj, argues that “a POSITA would have understood that the change in display of the viewer’s television set would not trigger an automatic channel change for the other television set. Thus, the user’s selection of a buddy link influences only that

user's television set and not the television set of the buddy.” *Id.* (citing Ex. 1002 ¶¶ 85–86).

vi. Limitation 1.e

Claim 1 further recites “wherein the information includes information of a broadcast program which is currently not displayed on the display, but can be displayed by a channel change.” For this limitation, Petitioner refers to Cooper’s Figures 12A and 12B. Pet. 27 (citing Ex. 1004, Figs. 12A, 12B). Petitioner contends that Figures 12A and 12B depict that “user Rob is originally watching MTV and user Al is originally watching CNN.” *Id.* When user Rob changes his channel to ABC, user Al receives a notification and may then select the link in his buddy list to change his display from CNN to ABC. *Id.* (citing Ex. 1004 ¶¶ 60–61, Figs. 12A, 12B; Ex. 1002 ¶¶ 87–88).

vii. Limitation 1.f

Claim 1 further recites

wherein the manual controller is arranged to instantly carry out replacement of the currently displayed broadcast program with the one definite broadcast program identified by the channel selection of the another television set in response to the predetermined same manual operation, the same manual operation being universal regardless of the information and without any channel selecting operation.

For limitation 1.f, Petitioner asserts that when the user clicks a link in the display, the user’s display instantly changes to the linked broadcast program. Pet. 27–28 (citing Ex. 1004 ¶ 43). Cooper explains that “[u]nlike traditional links that cause a browser to load specified files or an Internet URL (Universal Resource Locator) when selected, the links 618 in the message 600 can change the channel of the set-top box.” *Id.* (quoting Ex. 1004 ¶ 43).

Petitioner, relying on the declaration testimony of Dr. Bajaj, further argues that the clicking of a mouse button is a universal operation because “the same manual operation of selecting the link will trigger the same function (replacement of the current programming) regardless of whether the link points to a specific TV show . . . or network, the manual operation is ‘universal,’ i.e., the same link-clicking action.” *Id.* at 28–29 (citing Ex. 1002 ¶ 91).

Petitioner further contends that selecting a link on the display occurs without any channel selecting operation because “when user Al clicks Rob’s link (which displays the programming Rob is watching, i.e., *Friends* or *Cheers*), user Al is not making a channel selecting operation but is instead performing a program selection operation.” *Id.* at 29 (citing Ex. 1002 ¶¶ 92–93).

viii. Limitation 1.g

Claim 1 further recites “whereby same experience as that of a viewer of the another television set is possible from own motive of the viewer by means of the manual controller.” For this limitation, Petitioner refers to the discussion of limitation 1.d and contends that “[b]y selecting the link, a user can watch the same show that a friend is watching.” Pet. 29 (quoting Ex. 1004 ¶ 60; citing Ex. 1002 ¶¶ 94–95).

b. Claim 4

Claim 4 is directed to a “broadcast program viewing system.” Ex. 1001, 48:58–49:25. In addition to the preamble, which Petitioner designates as element 4.pre, claim 1 recites various limitations, which Petitioner designates as limitations 4a through 4c. We address the preamble and each limitation in turn.

i. Preamble 4.pre

The preamble of claim 4 recites “[a] broadcast program viewing system for viewing a broadcast program same as that identified by a program selection of another broadcast program viewing system in another place to share same experience of viewing same broadcast program.” Petitioner references the assertions made with regard to the claimed television set system and another broadcast program viewing system recited in claim 1. Pet. 34 (citing Ex. 1002 ¶ 110).

Neither party takes a position on whether the preamble is limiting. At this stage of the proceeding, we do not determine whether the preamble is limiting, as we find Petitioner sufficiently shows that Cooper discloses the subject matter of the preamble.

ii. Limitation 4.a

Claim 4 further recites “a display arranged to display a broadcast program.” For this recitation, Petitioner references the discussion of limitation 1.b. Pet. 35 (citing Ex. 1002 ¶ 111).

iii. Limitation 4.b.i

Claim 4 further recites “a receiver arranged to receive, without request or acknowledgement, information of one definite broadcast program which can be displayed on the display and is identified by the program selection of the another broadcast program viewing system.” For this recitation, Petitioner references the discussion of limitation 1.c. Pet. 35. Petitioner asserts that limitation 4.b.i recites substantially similar limitations to limitation 1.c except that limitation 4.b.i recites “is identified by the program selection” rather than “is identified by the channel selection.” *Id.* Petitioner, relying on the declaration testimony of Dr. Bijaj, contends that a “POSITA

would have understood that when a user stops changing their channel, they have made a program selection. Thus, when Rob changes his channel from MTV to ABC, Rob has made a program selection of whatever program is airing on ABC.” *Id.* (citing Ex. 1002 ¶ 112). Petitioner further contends that Cooper discloses program selection using an electronic programming guide provided by the set-top box. *Id.* at 35–36 (citing Ex. 1004 ¶ 46, Fig. 6; Ex. 1002 ¶ 113).

iv. Limitation 4.b.ii

Claim 4 further recites “the information including information of a broadcast program which is not currently not displayed on the display, but can be displayed by a channel change.”⁶ For this recitation, Petitioner references the discussion of limitation 1.e. Pet. 36 (citing Ex. 1002 ¶ 111).

v. Limitation 4.c.i

Claim 4 further recites

a manual controller having a predetermined operating portion to change the display in response to a predetermined same manual operation from own motive of a viewer of the display on the basis of the information received by the receiver, the predetermined same manual operation from own motive having no influence on the program selection of the another broadcast program viewing system, but having influence solely on the change in the display of the own broadcast program viewing system into the one

⁶ The use of a double negative in this claim appears to be a typographical error, and we treat it as such. That is, the claim as written recites the program is “not currently not displayed”—implying that it is currently displayed—then contradictorily recites that it “can be displayed by a channel change.” We think a fair reading of the claim is that the program is “not currently . . . displayed” but that it “can be displayed by a channel change.” Petitioner’s contentions are consistent with this reading. *See* Pet. 27 (“Al can then select the link in his buddy list corresponding to Rob’s viewing of ABC, which will change Al’s display from CNN to ABC.”)

definite broadcast program identified by the program selection of the another broadcast program viewing system with the information received by the receiver.

Petitioner contends that limitation 4.c.i is substantially similar to limitations 1.d, 1.e, and 1.f, but further recites the manually controller including “a predetermined operating portion.” Pet. 37. For this limitation, Petitioner references the discussions of limitations 1.d, 1.e, and 1.f and further contends that Cooper’s mouse has a predetermined operating portion *Id.* (citing Ex. 1004 ¶¶ 3, 11, Fig. 1; Ex. 1002 ¶ 105; Ex. 1006, Fig. 4, 3:19–21; Ex. 1002 ¶ 115).

vi. *Limitation 4.c.ii*

Claim 4 further recites

the manual controller is arranged to instantly carry out replacement of the currently displayed broadcast program with the one definite broadcast program identified by the program selection of the another broadcast program viewing system in response to the same manual operation at the predetermined operating portion, the same manual operation being universal regardless of the information and without any program selecting operation.

Petitioner contends that limitation 4.c.ii is substantially similar to limitations 1.d, 1.e, and 1.f, but “without any program selecting operation” rather than “without any channel selecting operation.” Pet. 37. To disclose this limitation, Petitioner asserts that Cooper discloses an enhanced buddy list with links that can reference either a specific show or a specific network that each buddy is watching where a user can select a link to make a TV network selection. *Id.* (citing Ex. 1004 ¶¶ 60, 63; Ex. 1002 ¶ 116). Petitioner, relying on the declaration testimony of Dr. Bijaj, contends that a “POSITA would have understood that use of a mouse to manually click a link is a

‘universal’ manual operation that will trigger replacement of what program/channel the user is currently watching with the identified another user’s program/channel, regardless of the channel change information and without any channel search and selecting operation.” *Id.* at 38 (citing Ex. 1002 ¶ 117).

c. Claim 8

Claim 8 presents substantially similar limitations to claims 1 and 4. For this claim, Petitioner refers to the assertions made regarding claims 1, 3, 4, and 7 as demonstrating how Cooper discloses the limitations of claim 8. Pet. 44–45 (citing Ex. 1002 ¶¶ 135–140).

d. Patent Owner’s Arguments

Patent Owner argues that Cooper fails to teach “receiving broadcast program information ‘*without request or acknowledgement*,’” as recited in independent claims 1, 4, and 8. Prelim. Resp. 1, 6. According to Patent Owner, “the Buddy List subscriber management functionality of Cooper is not basic device handshaking, but a separate application program.” *Id.* at 7 (citing Ex. 1004 ¶ 17). As a result, Patent Owner argues that Cooper’s buddy list management program sends program information in response to a “request” in the form of a user log-in, and requires an “acknowledgment” by confirming the user’s log-in status and privacy settings. *Id.* at 8–12 (citing Ex. 1004 ¶¶ 59–64, Figs. 13, 14).

On this record, we are not persuaded by Patent Owner’s argument because Petitioner adequately demonstrates that Cooper discloses receiving broadcast program information “without request or acknowledgement.” As noted by Patent Owner, Petitioner relies on “‘data 1202/1212’ as the information received by the receiver.” Prelim. Resp. 6 (citing Pet. 17–18).

Petitioner asserts that “[d]ata 1202 is generated when user ‘Rob’ changes his channel in a first location and includes the information ‘ABC’—which is information of one definite broadcast program.” Pet. 18 (citing Ex. 1004 ¶ 61). Cooper states that “when a user changes channels, set-top box software transmits a message to the server including the name of the show and/or the network the user is presently viewing.” *Id.* (quoting Ex. 1004 ¶ 61). Cooper further states that “server 1204 updates the user list 1206 to reflect the new viewing information [and] . . . transmits a message 1212 to each logged-in user that included the channel-changing user in his or her list.” *Id.* at 20 (quoting Ex. 1004 ¶ 61). That is, Cooper describes automatically sending broadcast program information to a first user in response to a second user changing channels rather than sending such information in response to a request from the first user. *Id.*

For similar reasons, we are unpersuaded by Patent Owner’s argument that the limitation is not met because “Cooper does not and cannot respond with buddy viewing information absent the subscriber log-in request to the Buddy List Program.” Prelim. Resp. 10–12 (citing Ex. 1004 ¶¶ 59–64). To be sure, Cooper describes that the initiation of buddy list functionality requires a user log-in. *Id.* at 10 (citing Ex. 1004 ¶¶ 59–64). However, as we describe above, Cooper discloses, after a single initial log-in, automatically sending broadcast program information in response to a user changing channels without a request. Pet. 18 (citing Ex. 1004 ¶ 61).

Moreover, as we note above, on this preliminary record, we construe “without request or acknowledgement” as not relating to a device handshake process such as a user login. *See* Section III.B. Patent Owner does not dispute that basic communication handshake protocols are not covered by

the “without request or acknowledgement” limitation. Prelim. Resp. 6 n.4. Instead, Patent Owner argues that “the Buddy List subscriber management functionality of Cooper is not basic device handshaking, but a separate application.” *Id.* at 7 (citing Ex. 1004 ¶ 17). In light of this distinction, Patent Owner argues that “Cooper plainly requires Buddy List subscriber management requests and acknowledgements prior to exchanging broadcast program information.” *Id.* at 8.

At this stage, we need not determine whether Cooper’s buddy list subscriber management functionality, or the user’s logging in to such functionality, is a handshake protocol because we determine, for the reasons described above, that Petitioner adequately demonstrates that Cooper discloses receiving broadcast program information without request. The parties are invited to further address this issue during the course of trial.

Patent Owner further argues that Cooper requires an “acknowledgement” that a buddy has not “Turned on Privacy” before transmitting program information to a user. Prelim. Resp. 12. Specifically, Patent Owner argues that “before Cooper’s server ‘transmits [a] change in channel information to [a] user[],’ the server determines whether the user whose channel information is to be shared ‘has [] turned on privacy.’” *Id.* (citing Ex. 1004, Fig. 14). According to Patent Owner, “acknowledgement that the privacy setting is not engaged is a limit on sending the channel information to the user, not the process of sending the channel information to the server.” *Id.* at 13 (citing Ex. 1004, Fig. 14).

We are not persuaded by Patent Owner’s argument. As we note above, on this preliminary record, we construe “without request or acknowledgement” as requiring that a device receives information of one

definite broadcast program without issuing a request or acknowledging its reception. *See* Section III.B. On this record, we are not persuaded that a server determining whether a user turned on a privacy setting before transmitting that user’s channel selection to another user is an acknowledgement by the other user of receiving information of one definite broadcast program. As Patent Owner itself notes, Cooper’s privacy setting “is a limit on *sending* the channel information to the [other] user.” Prelim. Resp. 13 (citing Ex. 1004, Fig. 14) (emphasis added). It, therefore, is not an acknowledgment by the other user of *receiving* that channel information.

Patent Owner further argues that Petitioner cannot meet its burden to demonstrate how Cooper discloses receiving program information “without request or acknowledgement” by relying on what Cooper does not mention. Prelim. Resp. 6 (citing 37 C.F.R. § 42.104(b)(4); Pet. 21–22). That is, Patent Owner argues that rather than relying on a specific disclosure in Cooper, Petitioner relies on Cooper’s silence stating that “Cooper does not ***mention*** any ‘request or acknowledgement’ with respect to receipt of a ‘message’ or information [] corresponding to what a buddy is watching.” *Id.* at 7–8 (citing Pet. 22).

At this stage of the proceeding, Patent Owner’s arguments do not dissuade us from finding that Petitioner has shown sufficiently how Cooper discloses receiving program information “without request or acknowledgement.” The Petition, and the supporting testimony of Dr. Bijaj, make clear that Petitioner relies on the “receipt of a ‘message’ or information 1202/1212 corresponding to what a buddy is watching,” as disclosing receiving information of one definite broadcast program without request or acknowledgement. Pet. 21–22; Ex. 1002 ¶¶ 79–80. In regards to

information 1202/1212, Cooper states that when a user changes channels, “the server 1204 updates the user list 1206 to reflect the new viewing information [and] . . . *transmits a message 1212 to each logged-in user* that included the channel-changing user in his or her list.” *Id.* at 20 (quoting Ex. 1004 ¶ 61) (emphasis added). On this record, we are persuaded that Cooper’s description of a broadcast transmission of a message *to each logged-in user* is sufficient to show that the information 1212 received by each logged-in user was neither requested nor acknowledged by them. Simply put, we are not persuaded that a POSITA would have understood Cooper’s disclosure of broadcasting a channel-change message to require the recipients of that message to have either requested it or acknowledged its receipt. Ex. 1004 ¶ 63 (“After updating 1404, the server broadcasts 1410 the change to each logged-on user who included the channel changing user in their buddy list.”); *see AC Techs., S.A. v. Amazon.com, Inc.*, 912 F.3d 1358, 1367 (Fed. Cir. 2019) (“[A] reference need not state a feature’s absence in order to disclose a negative limitation.”).

Patent Owner further argues that the Petition fails to identify “one definite broadcast program” because Petitioner maps this claim element to Cooper’s entire buddy list. Prelim. Resp. 16–17. According to Patent Owner, “[t]he Petition identifies the Buddy List in the aggregate as the ‘information’ for its argument that the ‘information’ is ‘displayed on the display’ (Pet., 19-20) and relies on the user selecting a link from Cooper’s Buddy [List] to replace the current channel with one shown in the Buddy List (Pet., 28).” *Id.* at 16.

On this record, we disagree with Patent Owner because when addressing limitation 1.c, Petitioner maps the claimed one definite broadcast

program to a “show,” rather than the entire enhanced buddy list. Pet. 17–18. The Petition states “[t]he receiver is arranged to receive information (data 1202/1212) *of one definite broadcast program (show) which can be displayed on the display* (display in TV 502).” *Id.* (citing Ex. 1004 ¶¶ 60–63, Figs. 11, 12A, 12B, 14). The Petition then refers to the enhanced buddy list as showing “the TV show and/or network 1110 each listed buddy 1108 is watching.” *Id.* at 18 (citing Ex. 1004 ¶¶ 60–61, Fig. 11). The fact that the user’s television displays the received program information together with other information identifying programs that other users are watching in a collective buddy list does not negate the fact that the television displays the received program information as claimed.

e. Conclusion as to Claims 1, 4, and 8

Based on the foregoing, on this record, we are persuaded that Petitioner has sufficiently shown for purposes of this Decision that claims 1, 4, and 8 would have been obvious over Cooper. Accordingly, we determine that the Petition demonstrates there is a reasonable likelihood that Petitioner would prevail in establishing unpatentability of claims 1, 4 and 8.

3. Analysis of Claims 2, 3, and 5–7

a. Claim 2

Claim 2 recites “the channel information of the another television set is converted into its own local channel number if it differs from that of the local channel number in an area where the another television set is located.” For this recitation, Petitioner contends that Cooper discloses converting the channel information of the another television set into a local channel number. Pet. 30–31. Specifically, Petitioner asserts that Cooper discloses

set-top box 500 using an electronic programming guide “to select a channel corresponding to a particular link from the shows currently available from the TV source.” *Id.* at 30 (quoting Ex. 1004 ¶ 47; citing Ex. 1004 ¶¶ 44–45, 48).

b. Claim 3

Claim 3 recites “the manual controller is a remote controller.” For this recitation identified by Petitioner as limitation 3.pre, Petitioner identifies Cooper’s mouse “because the mouse controls the set-top box at a distance.” Pet. 31 (citing Ex. 1004 ¶ 11, Fig. 1).

Claim 3 further recites “an operating part including a plurality of keys each of which are assigned to predetermined functions, respectively, the plurality of keys including a predetermined key for replacing the currently displayed broadcast program by the one definite broadcast program identified by the channel selection of the another television set.” For this recitation, identified by Petitioner as limitation 3.a, Petitioner contends that the mouse includes operating parts including buttons or switches that are assigned predetermined functions such as right or left click functionality. *Id.* (citing Ex. 1004 ¶¶ 3, 11, Fig. 1; Ex. 1002 ¶ 105; Ex. 1006, Fig. 4, 3:19–21). Petitioner asserts that a POSITA “would have understood and found it obvious that a mouse (wireless or non-wireless) has buttons with predetermined functionality, *i.e.*, a left click performs a selection operation while a right click opens a context menu.” Pet. 31–32 (citing Ex. 1006, Fig. 4, 3:19–21; Ex. 1004, Fig. 1, ¶ 11; Ex. 1002 ¶ 105).

Petitioner further asserts that a person skilled in the art would have found it obvious to configure the mouse so that its switches include a predetermined key (left mouse button) for replacing the currently displayed

broadcast program by the one definite broadcast program because “the left mouse button traditionally performs a selection operation.” Pet. 33.

Referencing the discussion in limitations 1.d, 1.e, and 1.f and relying on the declaration testimony of Dr. Bijaj, Petitioner contends that when the left key of Cooper’s mouse is so configured, “selection of a link in a buddy list replaces what the user is currently viewing with the programming corresponding to the selected link.” *Id.* (citing Ex. 1002 ¶¶ 106–107).

Claim 3 further recites “a signal transmitter arranged to transmit a control signal to the television function unit in response to the operation of the predetermined key in the operating part.” For this recitation identified by Petitioner as limitation 3.b, Petitioner, relying on the declaration testimony of Dr. Bijaj, contends that a “POSITA would have understood and found it obvious for Cooper’s mouse to include a signal transmitter to transmit a control signal in response to operation of one of its buttons, such as the predetermined key, otherwise the mouse would be inoperable.” Pet. 34 (citing Ex. 1002 ¶ 108; Ex. 1006, 3:9–12).

c. Claim 5

Claim 5 recites “the broadcast program is [a] television program transmitted from a broadcast station, and wherein the program selection of the another broadcast program viewing system is a channel selection to identify a broadcast station.” For this recitation, Petitioner asserts that Cooper discloses a TV tuner receiving broadcast and/or cable TV signals. Pet. 38 (citing Ex. 1004 ¶ 11). Petitioner further contends that Cooper’s enhanced buddy list identifies users that are watching broadcast programs from television networks such as ABC, CBS, and NBC. *Id.* (citing Ex. 1004 ¶ 11, Fig. 12A; Ex. 1002 ¶¶ 119–120). Petitioner asserts that Cooper

discloses program selection of the another broadcast viewing system is a channel selection by disclosing “Rob selecting the program on ABC by changing the channel from MTV to ABC[] *to identify a broadcast station* (ABC).” *Id.* at 39 (citing Ex. 1002 ¶¶ 121–122).

d. Claim 6

Claim 6 recites “the broadcast program is television program data to be downloaded from a server station, and wherein the program selection of the another broadcast program viewing system is a code setting to download the selected broadcast program.” For this recitation, Petitioner asserts that Cooper’s set-top box is a special-purpose “web TV” computer system. Pet. 39 (citing Ex. 1004 ¶¶ 11, 44–48, Fig. 6). Petitioner contends that Cooper’s set-top box “can access electronic content or other resources either stored locally . . . or remotely at one of more server systems 200.” *Id.* (quoting Ex. 1004 ¶ 4; citing Ex. 1004, Fig. 2). Petitioner acknowledges that Cooper does not explicitly describe downloading a television program. *Id.* However, relying on the declaration testimony of Dr. Bijaj, Petitioner contends that a “POSITA would have understood that web TV systems, such as Cooper’s set-top box system, were well-known at the time of filing to allow users to select broadcast programming for download from servers (e.g., via streaming) for viewing.” *Id.* at 39–41 (citing Ex. 1004 ¶ 5, Fig. 5; Ex. 1009 ¶¶ 1, 10, 58, 76, 87, 144; Ex. 1014; Ex. 1002 ¶ 125). Dr. Bijaj further asserts that “a POSITA would have found it obvious to implement Cooper such that the broadcast program is to be downloaded . . . using the streaming disclosed in Walker, or any other well-known streaming technique . . . by streaming the selected television program to the user when a user

clicks on the link of the television program in the buddy list.”⁷ Ex. 1002 ¶ 125.

Petitioner further contends that “[a] POSITA that was implementing the ‘web TV’ disclosure of Cooper would have found it obvious for the remote user to download (e.g., via streaming) the recorded broadcast program via a code setting when he or she selects a prerecorded broadcast program available for download.” Pet. 42 (citing Ex. 1004 ¶¶ 5, 11; Ex. 1014; Ex. 1009 ¶¶ 10, 58, 76, 87, 144). Petitioner asserts that a POSITA would have been motivated to permit a user to download a show because it provides 1) “typical functionality of streaming archived TV programming; 2) a desire to increase the programming available to a user; [and] 3) a desire to enable the user to watch programming on demand.” *Id.* at 41, 43 (citing Ex. 1002 ¶¶ 125–127).

e. Claim 7

i. Preamble 7.pre

The preamble of claim 7 recites “the manual controller is a remote controller.” To teach the preamble, Petitioner references the assertions made with regard to claim 4. Pet. 44 (citing Ex. 1002 ¶¶ 129–130).

ii. Limitation 7.a

Claim 7 further recites “an operating part including a plurality of operating portions each of which are assigned to predetermined functions, respectively, the plurality of operating portions including the predetermined operating portion.” For this recitation, Petitioner references the discussion of limitation 3.a. Pet. 44 (citing Ex. 1002 ¶ 131).

⁷ Walker, U.S. Publ’n No. 2005/0160465 A1, published July 21, 2005 (“Walker,” Ex. 1009).

iii. Limitation 7.b

Claim 7 further recites “a signal transmitter arranged to transmit a control signal to the display in response to the operation at the predetermined operating portion.” For this recitation, Petitioner references the discussion of limitation 3.b. Pet. 44. Petitioner, relying on the declaration testimony of Dr. Bijaj, further contends that a “POSITA would have understood that the mouse transmits control signals that change the image on the display, i.e., clicking the left mouse key on top of the hyperlink activates the hyperlink on the display.” *Id.* (citing Ex. 1002 ¶¶ 132–133).

f. Conclusion as to Claims 2, 3, and 5–7

We have reviewed Petitioner’s contentions with respect to claims 2, 3, and 5–7 and we determine that the Petition provides a sufficient showing, at this stage of the proceeding, that Cooper discloses the subject matter of these claims. *See* Pet. 29–46. Patent Owner does not present any arguments specifically addressing claims 2, 3, and 5–7. *See* Prelim. Resp. 1–17. We determine, based on the current record, that Petitioner demonstrates a reasonable likelihood that it will prevail in showing that claims 2, 3, and 5–7 are rendered obvious over Cooper in view of the knowledge of a POSITA.

4. Summary

For the foregoing reasons, we determine that Petitioner has demonstrated a reasonable likelihood that it will prevail in showing that claims 1–8 would have been obvious over Cooper.

E. Ground 2: Alleged Obviousness over Cooper and Slotznick

Petitioner asserts that claims 1–16 of the ’615 patent would have been obvious over Cooper and Slotznick. Pet. 46–68. For the reasons explained

below, we determine that Petitioner has demonstrated a reasonable likelihood of prevailing with respect to claims 1–16.

Before addressing the parties’ arguments, we provide an overview of the Slotznick reference.

1. Overview of Slotznick

Slotznick describes a TV Phone that “combines a wireless phone with a TV remote.” Ex. 1005 ¶ 13. Slotznick discloses that the TV Phone can operate as a pointing device able to navigate pages and click on links displayed on a TV. *Id.* ¶¶ 34, 121 (“the TV phone acts as an input device (e.g., a mouse . . .)”), ¶ 133 (“user can input information to the WebTV device . . . by clicking on hyperlinks”). Slotznick further describes that when a picture is displayed on a TV, the TV Phone “can click on particular portions of the picture when the portions are linked to hot spots or other triggering devices (similar to hot spots on a web page graphic) which may trigger the placing of a phone call, the retrieval of a web page or other information.” *Id.* ¶ 35.

1. Analysis of Claims 1–16

a. Claim 1

Petitioner contends that Cooper discloses the limitations of preamble 1.pre, limitations 1.a–1.c, and 1.e–1.g for the reasons described above relating to Ground 1. *See* Pet. 50, 53. For limitation 1.d, a manual controller, Petitioner relies on Slotznick for disclosing “an input/output device for TV systems in the form of TV Phone 101.” *Id.* at 51 (citing Ex. 1005, Fig. 1C, 101, ¶ 121). Petitioner asserts that Slotznick’s TV Phone 101 is controlled via manual inputs using the selection of a button or a plurality of buttons that must be pressed in a specific sequence. *Id.* at 51–52

(citing Ex. 1005 ¶¶ 35, 59, 64, 122, 133, 134, Fig. 1C). Petitioner argues that “at least one button from buttons 113, 115, 119, 121 is used to select a link displayed to the user.” *Id.* at 52 (citing Ex. 1005, Fig. 1A, ¶¶ 35, 160; Ex. 1002 ¶ 160).

Petitioner contends that a POSITA would have been motivated to replace Cooper’s input/output devices with Slotznick’s TV Phone. Pet. 48–50. Petitioner argues that the replacement of one input device for another is a simple substitution of one known element for another to obtain the predictable result of controlling Cooper’s set-top box 500 with Slotznick’s TV Phone. *Id.* at 48 (citing Ex. 1005 ¶ 130; Ex. 1002 ¶ 149). Petitioner further contends that the substitution would have been obvious to try. *Id.* at 49 (citing Ex. 1005 ¶¶ 12, 18; Ex. 1002 ¶ 150).

b. Claims 2 and 4–8

Petitioner contends that claims 2 and 4–8 would have been obvious for the same reasons discussed above. *See* Pet. 53, 57–60 (citing Ex. 1002 ¶¶ 165–166, 177–195).

c. Claim 3

Claim 3 recites “the manual controller is a remote controller.” For this recitation identified by Petitioner as limitation 3.pre, Petitioner contends that Slotznick’s TV phone is a remote controller. Pet. 53–54 (citing Ex. 1005 ¶¶ 12–13, 32, 130, 134; Ex. 1002 ¶¶ 168–169).

Claim 3 further recites “an operating part including a plurality of keys each of which are assigned to predetermined functions, respectively, the plurality of keys including a predetermined key for replacing the currently displayed broadcast program by the one definite broadcast program identified by the channel selection of the another television set.” For this

recitation, identified by Petitioner as limitation 3.a, Petitioner asserts that “Slotznick’s TV phone 101 includes a front portion that includes elements for operating the TV phone 101.” Pet. 54 (citing Ex. 1005 ¶ 122). Petitioner contends that Slotznick’s TV phone includes a plurality of buttons 113, 115, 119, and 121 that are assigned predetermined functions. *Id.* (citing Ex. 1005 ¶ 122). Petitioner further asserts that Slotznick provides the ability to program a button to perform an “enhanced function.” *Id.* at 55 (citing Ex. 1005 ¶ 59; Ex. 1002 ¶ 171).

Petitioner further asserts, referencing the discussion above regarding claim element 1.d, that Slotznick teaches “at least one button from buttons 113, 115, 119, 121 is used to select a link displayed to the user.” *See* Section III.E.1. As a result, Petitioner contends that “[b]ecause one of button 113, 115, 119, 121 is programmed to perform a selection operation, it is predetermined that one of button 113, 115, 119, 121 would replace the currently displayed program with the remote television’s program . . . when the user presses the button to select the link corresponding to the remote television’s program.” Pet. 55 (citing Ex. 1002 ¶ 172).

Claim 3 further recites “a signal transmitter arranged to transmit a control signal to the television function unit in response to the operation of the predetermined key in the operating part.” For this recitation, identified by Petitioner as limitation 3.b, Petitioner contends that Slotznick’s TV phone transmits commands to the TV wirelessly. Pet. 56 (citing Ex. 1005 ¶¶ 12, 122, 130; Ex. 1002 ¶¶ 175–176).

d. Claim 9

Claim 9 recites “[t]he remote controller according to claim 8 further comprising a display.” For this recitation, Petitioner asserts that Slotznick’s

TV phone includes an LCD panel 111 display. Pet. 60 (citing Ex. 1005 ¶¶ 122, 147, 153; Ex. 1002 ¶¶ 196–199).

e. Claim 10

Claim 10 recites “the manual operating portions of the manual operating part include a phone call key.” For this recitation, Petitioner identifies special button 329 and button 113 as phone call keys. Pet. 60–61 (citing Ex. 1005 ¶¶ 13, 122, 145, Fig. 1A; Ex. 1002 ¶¶ 200–203).

f. Claim 11

Claim 11 recites “the manual operating portions of the manual operating part include ten key.” For this recitation, Petitioner identifies TV phone 101 as including ten numeric keys of alphanumeric keypad 119. Pet. 61 (citing Ex. 1005 ¶ 122, Fig. 1C; Ex. 1002 ¶¶ 204–207).

g. Claim 12

Claim 12 recites “[t]he remote controller according to claim 11 further comprising a speaker.” For this recitation, Petitioner identifies TV phone 101 as including speaker 109. Pet. 61–62 (citing Ex. 1005 ¶¶ 122, 147, Fig. 1C; Ex. 1002 ¶¶ 208–210).

h. Claim 13

Claim 13 recites “[t]he remote controller according to claim 12 further comprising a microphone.” For this recitation, Petitioner identifies TV phone 101 as including microphone 117/323. Pet. 62 (citing Ex. 1005 ¶¶ 122, 129, 132, Fig. 1C; Ex. 1002 ¶¶ 211–214).

i. Claim 14

Claim 14 recites “the manual operating portions of the manual operating part include a menu key.” For this recitation, Petitioner, referencing the discussion of limitations 1.d and claim 13 above, argues that

Slotznick discloses a TV phone including buttons for remotely controlling a television. Pet. 51–53, 62 (citing Ex. 1005 ¶¶ 35, 59, 64, 121–122, 133–134, Figs. 1A, 1C; Ex. 1002 ¶ 160). Petitioner argues that “[a]lthough Slotznick does not explicitly state that one of its buttons is a menu key, a POSITA would have known that a menu button was a well-known and standard button on remote controls.” *Id.* at 62–63 (citing Ex. 1008, Fig. 1B, ¶ 124). Petitioner contends that a POSITA would have been motivated to include a menu key because televisions “often had menus, such as for settings and options, that a user would need to access.” *Id.* at 64 (citing Ex. 1004, Fig. 5; Ex. 1015 ¶ 84; Ex. 1002 ¶¶ 215–219).

j. Claim 15

Claim 15 recites “the manual operating portions of the manual operating part include a scroll key.” For this recitation, Petitioner, referencing the discussion of limitations 1.d and 3.b above, argues that Slotznick discloses a TV phone including buttons for remotely controlling a television. Pet. 64. Petitioner argues that although Slotznick does not explicitly describe the TV phone as including a scroll button, “a POSITA would have known that a scroll button is a standard button on remote controls.” *Id.* at 64–65 (citing Ex. 1008 ¶ 24, Fig. 1B; Ex. 1007, Fig. 7). Petitioner contends that a POSITA would have been motivated to include a scroll key because “[a] scroll key would be desirable to let the user to scroll through [Electronic Program Guides (EPGs)] (which Cooper discloses) using a button.” *Id.* at 66–67 (citing Ex. 1016 ¶¶ 92–94; Ex. 1002 ¶¶ 220–223).

k. Claim 16

Claim 16 recites “the manual operating portions of the manual operating part include a push-down operation key.” For this recitation, Petitioner asserts that a user pushes down on the keys of the TV phone. Pet. 67 (citing Ex. 1005, Figs. 1A, 1B, 1C; Ex. 1002 ¶¶ 224–227).

l. Conclusion as to Claims 1–16

We have reviewed Petitioner’s contentions with respect to claims 1–16 and we determine that the Petition provides a sufficient showing, at this stage of the proceeding, that the combination of Cooper and Slotznick discloses the subject matter of these claims. *See* Pet. 29–46. We further find, at this stage of the proceeding, that Petitioner has set forth sufficient reasoning with a rational underpinning for combining the teachings of Cooper and Slotznick. We have considered, but do not find persuasive, Patent Owner’s arguments with respect to claims 1, 4, and 8 for the reasons stated above. *See supra* Section III.D.2.d; Prelim. Resp. 18. Accordingly, we determine, based on the current record, that Petitioner demonstrated a reasonable likelihood that it will prevail in showing that claims 1–16 are rendered obvious over Cooper and Slotznick.

2. Summary

For the foregoing reasons, we determine that Petitioner has demonstrated a reasonable likelihood that it will prevail in showing that claims 1–16 would have been obvious over Cooper and Slotznick.

F. Discretionary Denial under 325(d)

Patent Owner contends that we should exercise our discretion to deny institution under 35 U.S.C. § 325(d) because “[s]ubstantially the same art and arguments were previously presented to the Office—specifically, the

Kutsuna reference which was applied and overcome in prosecution.”⁸

Prelim. Resp. 19 (citing Ex. 1003, 20, 46).

Section 325(d) provides that, in determining whether to institute an *inter partes* review, “the Director may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office.” The Board uses a two-part framework for evaluating arguments under § 325(d):

- (1) whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and
- (2) if either condition of first part of the framework is satisfied, whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims.

Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH, IPR2019-01469, Paper 6 at 8 (PTAB Feb. 13, 2020) (precedential) (“*Advanced Bionics*”). In applying this framework, we consider the *Becton, Dickinson*⁹ factors that address discretion to deny when a petition presents the same or substantially the same prior art or arguments previously presented to the Office, including:

- (a) the similarities and material differences between the asserted art and the prior art involved during examination;
- (b) the cumulative nature of the asserted art and the prior art evaluated during examination;
- (c) the extent to which the asserted art was evaluated

⁸ Kutsuna et al., U.S. Publ’n No. 2005/0130613 A1, published June 16, 2005 (“Kutsuna,” Ex. 1017).

⁹ *Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 at 17–18 (PTAB Dec. 15, 2017) (precedential as to § III.C.5, first paragraph) (“*Becton, Dickinson*”).

during examination, including whether the prior art was the basis for rejection;

(d) the extent of the overlap between the arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the prior art;

(e) whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art; and

(f) the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments.

Becton, Dickinson, Paper 8 at 17–18. Factors (a), (b), and (d), relate to whether the same or substantially the same art or arguments were previously presented to the Office, and factors (c), (e), and (f) relate to whether the petitioner demonstrates that the Office erred in a manner material to the patentability of the claims. *Advanced Bionics*, Paper 6 at 9–11. Only if the same or substantially the same art or arguments were previously presented to the Office do we then consider whether the petitioner has demonstrated a material error by the Office. *Id.*

Patent Owner does not allege that the Office previously considered any of the references on which Petitioner relies. Rather, Patent Owner argues that Cooper is cumulative of the Kutsuna reference considered by the Examiner during prosecution. Prelim. Resp. 19–21. Kutsuna was considered during examination and applied in several office actions. *Id.* at 21 (citing Ex. 1003, 46, 51, 70–75, 108–111, 119–129, 148–152, 163–172, 181–183, 193–199). Following amendment of the claims to recite “without request or acknowledgement,” the Examiner indicated that “[t]he amended claims . . . overcome the current references in the last office action.” *Id.* (citing Ex. 1003, 47).

Patent Owner argues that “Cooper and Kutsuna are substantially the same in relevant part at least in that both require ‘request or acknowledgement’ before transmitting and receiving broadcast program information and both receive information of a plurality of programs rather than ‘one definite broadcast program.’” Prelim. Resp. 19. First, Patent Owner contends Kutsuna teaches a user requesting the viewing information of a partner TV by “transmit[ing] a master candidate request.” *Id.* at 19 (quoting Ex. 1017 ¶ 193). Patent Owner contends that Cooper similarly requests channel viewing information of another user by logging in to a buddy list program. *Id.* at 9–12, 19 (citing Ex. 1004 ¶¶ 61–63, Fig. 13).

Patent Owner further contends that Kutsuna discloses a “‘common viewing program table’ from which the user selects a channel,” which “‘is an extraction of *program information of programs broadcasted at a same time* and having a matching program title’ in different ‘region[s]’ and which may be ‘arranged according to channel numbers.’” *Id.* at 20 (citing Ex. 1004, Fig. 11, ¶¶ 33, 60; Ex. 1017 ¶¶ 150–152, 165). Patent Owner asserts that Cooper similarly discloses that to select a channel another user is watching, a “user must also select from the set of program information in the Buddy List.” *Id.* at 20 (citing Ex. 1004 ¶ 60).

Based on the information presented, we determine that Cooper is not sufficiently cumulative to Kutsuna to satisfy the first part of the analysis under *Advanced Bionics*. Although certain aspects of Cooper and Kutsuna are similar, there exist material differences between their disclosures with respect to key features.

For example, Kutsuna discloses informing control portion 74 of a simultaneous viewing start request in response to a “remote control receiver

. . . receiving a depression signal of the simultaneous viewing start key.”

Ex. 1017 ¶ 192. Subsequently, TV receivers 10a and 10b create synthesized program information by determining which channels on both televisions are displaying the same content. *Id.* ¶¶ 205–207. Once synthesized program information is determined, if a user of TV receiver 10a presses a channel up selecting operation, “the TV receiver 10b, receiving the channel up selecting operation notice . . . similarly changes a referenced position of the program information data column stored in the synthesized program information memory.” *Id.* ¶¶ 209–210.

Cooper differs from Kutsuna because Cooper describes transmitting program information in a buddy list that displays the current show that each buddy in the list is watching rather than transmitting the channel up/down indications described in Kutsuna. For example, Cooper describes displaying a TV-enhanced buddy list 1110 that shows the TV show or network that each buddy 1108 is watching. Ex. 1004 ¶ 60. Cooper states that following a user log-on, a server sends the user the current viewing information of each member of the user’s buddy list. *Id.* ¶ 62. If a friend on the buddy list subsequently changes channels, the server transmits a message 1212 indicating the current show being watched by the friend to each logged-in user that included the friend in his or her buddy list. *Id.* ¶¶ 61, 63. The user may then continue watching the program they are currently watching or select a link to watch the same show that the friend is now watching. *Id.* ¶ 60. Thus, in addition to transmitting program information rather than channel up/down information as in Kutsuna, Cooper allows the user to select which program the user wishes to watch—the program currently being watched or the program the friend recently tuned-in to—rather than

automatically tuning the user's TV to the same program the friend is now watching.

For the above reasons, we determine that Cooper is not cumulative to Kutsuna. Therefore, the first part of the analysis under *Advanced Bionics* is not satisfied, and we need not reach the second part. On this record, neither the prior art nor the arguments presented in the Petition are substantially the same as those previously presented to the Office. As a result, we do not exercise our discretion under Section 325(d) to deny institution of *inter partes* review.

IV. CONCLUSION

For the foregoing reasons, we determine that Petitioner has demonstrated on the record before us a reasonable likelihood that it will prevail in showing at least one of the challenged claims of the '615 patent is unpatentable. We have not, however, made a final determination with respect to the patentability of the challenged claims or the constructions of any claim terms.

V. ORDER

For the reasons given, it is

ORDERED that pursuant to 35 U.S.C. § 314(a), an *inter partes* review of the '615 patent is hereby instituted for all of the challenged claims on all of the asserted grounds; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial; the trial will commence on the entry date of this Decision.

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