

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE, INC., MATCH.COM LLC, and PEOPLE MEDIA, INC.,
Petitioner,

v.

B.E. TECHNOLOGY, LLC,
Patent Owner.

Case IPR2014–00038
Case IPR2014–00699
Patent 6,628,314

Before SALLY C. MEDLEY, KALYAN K. DESHPANDE, and
LYNNE E. PETTIGREW, *Administrative Patent Judges*.

DESHPANDE, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a); 37 C.F.R. § 42.73

I. INTRODUCTION

A. Background

Google, Inc. (“Google”) filed a Petition to institute *inter partes* review of claims 11, 12, 13, 15, 18, and 20 of U.S. Patent No. 6,628,314 (Ex. 1001, “the ’314 patent”). Paper 1 (“Pet.”). B.E. Technology, LLC (“Patent Owner”) did not file a preliminary response. Pursuant to 35 U.S.C. § 314, we instituted *inter partes* review on April 9, 2014, as to claims 11, 12, 13, 15, 18, and 20 of the ’314 patent—claims 11, 12, 13, 18, and 20 under 35 U.S.C. § 102 as anticipated by Logan¹ and claim 15 under 35 U.S.C. § 103 as obvious over Logan and Robinson.² Paper 9 (“Dec.”).

After institution of the *inter partes* review, Match.com LLC (“Match.com”) and People Media, Inc. (“People Media”) filed a Petition and a Motion to Join the *inter partes* review. IPR2014-00699, Papers 1, 4. We granted the motion and joined Google, Match.com, and People Media (collectively, “Petitioner”) in the *inter partes* review. Paper 22.

Patent Owner filed a Response (Paper 25, “PO Resp.”) and Petitioner filed a Reply (Paper 27, “Pet. Reply”). Patent Owner filed a Motion to Amend (Paper 26, “Mot. to Amend”), Petitioner filed an Opposition to Patent Owner’s Motion to Amend, and Patent Owner filed a Reply to Petitioner’s Opposition.

Oral hearing was held on December 10, 2014, and the hearing transcript has been entered in the record as Paper 35 (“Tr.”).

The Board has jurisdiction under 35 U.S.C. § 6(c). This final written decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the

¹ U.S. Patent No. 5,721,827 (Ex. 1002) (“Logan”).

² U.S. Patent No. 5,918,014 (Ex. 1003) (“Robinson”).

reasons discussed below, we determine that Petitioner has shown by a preponderance of the evidence that claims 11, 12, 13, 15, 18, and 20 of the '314 patent are unpatentable. Patent Owner's contingent Motion to Amend is *denied*.

B. Related Proceedings

Petitioner indicates that the '314 patent is the subject of several district court cases: *B.E. Technology, L.L.C. v. Google, Inc.*, No. 2:12-cv-2830-JPM (W.D. Tenn.), filed on October 9, 2012; *B.E. Technology, L.L.C. v. People Media, Inc.*, No. 2:12-cv-02833 (W.D. Tenn.), filed on September 21, 2012; and *B.E. Technology, L.L.C. v. Match.com LLC*, No. 2:12-cv-02834 (W.D. Tenn.), filed on September 21, 2012. Pet. 1; IPR2014-00699, Paper 1, 2.

The '314 patent is also the subject of *Microsoft Corp. v. B.E. Technology, L.L.C.*, IPR2014-00039 (PTAB Apr. 9, 2014), *Facebook, Inc. v. B.E. Technology, L.L.C.*, IPR2014-00052 (PTAB Apr. 9, 2014), *Facebook, Inc. v. B.E. Technology, L.L.C.*, IPR2014-00053 (PTAB Apr. 9, 2014), *Match.com LLC v. B.E. Technology, L.L.C.*, IPR2014-00698 (PTAB June 13, 2014), *Google, Inc. v. B.E. Technology, L.L.C.*, IPR2014-000738 (PTAB June 18, 2014), *Google, Inc. v. B.E. Technology, L.L.C.*, IPR2014-00743 (PTAB June 18, 2014), and *Google, Inc. v. B.E. Technology, L.L.C.*, IPR2014-00744 (PTAB June 18, 2014). IPR2014-00738 has been joined with IPR2014-00039, IPR2014-00743 has been joined with IPR2014-00052, and IPR2014-00698 and IPR2014-00744 have been joined with IPR2014-00053.

C. The '314 Patent

The '314 patent relates to user interfaces that provide advertising obtained over a global computer network. Ex. 1001, col. 1, ll. 12–16. The '314 patent discloses a client software application that comprises a graphical user interface

(GUI) program module and an advertising and data management (ADM) module. *Id.* at col. 6, ll. 64-67. The GUI comprises multiple regions, including a first region comprising a number of user selectable items and a second region comprising an information display region, such as banner advertisements. *Id.* at col. 4, ll. 24-37. Program modules associated with the GUI store statistical data regarding the display of the selected informational data, allowing the targeting of banner advertisements based upon the type of link selected by the user. *Id.* at col. 4, ll. 43-51. The system for selecting and providing advertisements is set forth in Figure 3 as follows:

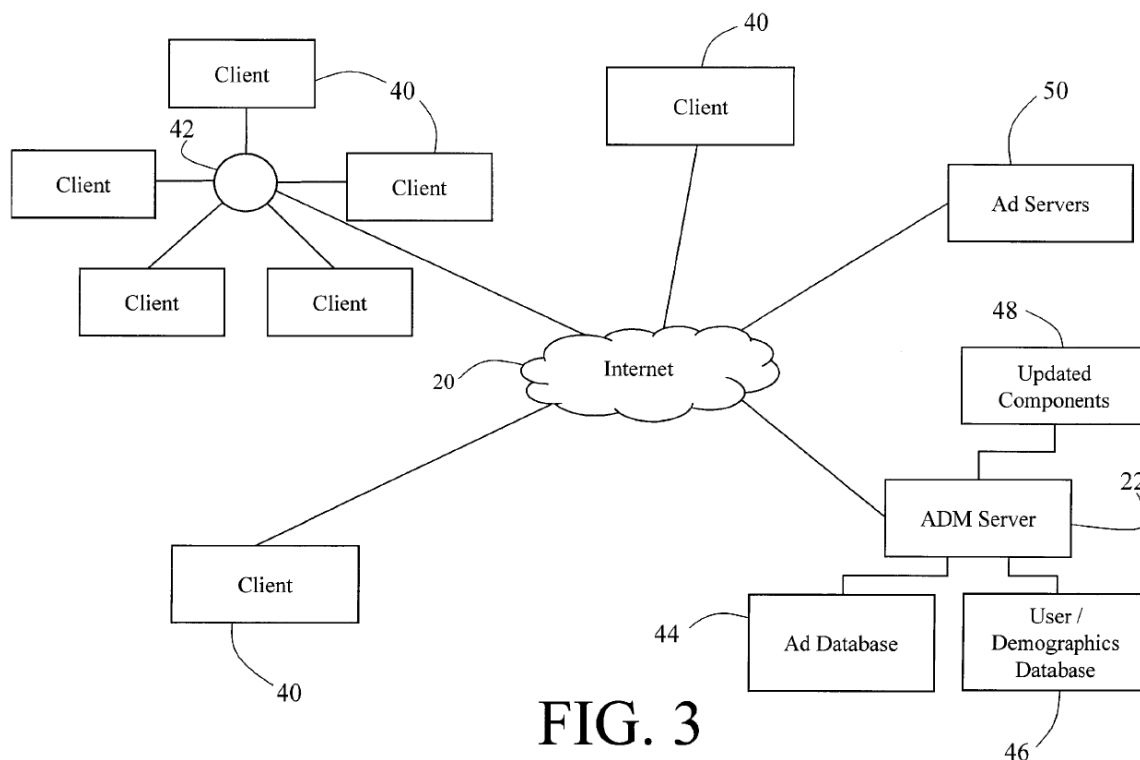


FIG. 3

Figure 3 illustrates a block diagram of a system distributing advertisements over the Internet. *Id.* at col. 6, ll. 21-22. ADM server 22 is accessible by client computers 40 over Internet 20, where client computers 40 have the client software application installed. *Id.* at col. 8, ll. 32-35. ADM server has associated with it

Ad Database 44 and User/Demographics Database 46. *Id.* at col. 8, ll. 38–43. Ad Database 44 stores banner advertising that is provided to client computers 40. *Id.* User/Demographics Database 46 stores demographic information used in targeting advertising downloaded to individual client computers 40. *Id.* at col. 8, ll. 55–57.

When a user first accesses the client software application for the purposes of downloading and installing the application, the user submits demographic information that is used to determine what advertising is provided to the user. *Id.* at col. 8, ll. 57–62. The demographic information is submitted by the user by entering the information into a form provided to the user, and ADM server 22 checks the completeness of the form. *Id.* at col. 16, l. 60 – col. 17, l. 2. ADM server 22 then assigns a unique ID to the user and stores the unique ID with the received user demographic information. *Id.* at col. 17, ll. 11–15. An initial set of advertisements is selected, and the client software application is downloaded to client computer 40 for installation. *Id.* at col. 17, ll. 17–23. The client software application monitors user interaction with the computer, whether with the client software application or with other applications, and later reports this information to the ADM server. *Id.* at col. 12, ll. 55–59, col. 13, ll. 1–2. Advertising banners are displayed in response to some user input or periodically at timed intervals. *Id.* at col. 14, ll. 40–43. The client software application targets the banner advertising displayed, based on the user’s inputs, so that it relates to what the user is doing. *Id.* at col. 14, ll. 43–46.

D. Illustrative Claims

Petitioner challenges claims 11, 12, 13, 15, 18, and 20 of the ’314 patent. Independent claim 11 and dependent claim 15 are illustrative of the claims at issue and follow:

11. A method of providing demographically-targeted advertising to a computer user, comprising the steps of:
providing a server that is accessible via a computer network,
permitting a computer user to access said server via said computer network,
acquiring demographic information about the user, said demographic information including information specifically provided by the user in response to a request for said demographic information,
providing the user with download access to computer software that, when run on a computer, displays advertising content, records computer usage information concerning the user's utilization of the computer, and periodically requests additional advertising content,
transferring a copy of said software to the computer in response to a download request by the user,
providing a unique identifier to the computer, wherein said identifier uniquely identifies information sent over said computer network from the computer to said server,
associating said unique identifier with demographic information in a database,
selecting advertising content for transfer to the computer in accordance with the demographic information associated with said unique identifier;
transferring said advertising content from said server to the computer for display by said program,
periodically acquiring said unique identifier and said computer usage information recorded by said software from the computer via said computer network, and
associating said computer usage information with said demographic information using said unique identifier.

15. The method of claim 11, wherein said providing a unique identifier step further comprises storing a cookie on the computer.

E. Claim Construction

The Board will interpret claims of an unexpired patent using the broadest reasonable construction in light of the specification of the patent in which they appear. *See* 37 C.F.R. § 42.100(b); *see also In re Cuozzo Speed Techs., LLC*, No.

2014-1301, 2015 WL 448667, at *7–8 (Fed. Cir. Feb. 4, 2015) (“Congress implicitly adopted the broadest reasonable interpretation standard in enacting the AIA,” and “the standard was properly adopted by PTO regulation.”). Under the broadest reasonable construction standard, claim terms are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *In re Translogic Tech. Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

1. “*providing a unique identifier to the computer*”

Independent claim 11 recites the limitation “providing a unique identifier to the computer.” Petitioner argues that the ’314 patent discloses that the server “assigns a unique ID to the user” and “[t]he user ID that is stored along with the demographic data is used to anonymously identify the user.” Pet. 6 (quoting Ex. 1001, col. 17, ll. 13–14, 29–31). Petitioner contends that the broadest reasonable construction of “unique identifier” is “information that uniquely identifies a user.” *Id.* (citing Ex. 1004 ¶ 91).

Patent Owner contends that Petitioner’s construction of “unique identifier” is based on an incomplete reading of the ’314 patent specification and completely ignores the actual claim language. PO Resp. 5–10. Patent Owner specifically argues that the claim language makes no mention of “user” with reference to “unique identifier.” *Id.* at 6. Patent Owner argues that the ’314 patent specification discloses that the anonymity of the user can be further “accomplished by assigning the user ID to the particular copy of the client software application downloaded by the user” and, therefore, the user ID is assigned to the software and will not identify the user. *Id.* at 7 (quoting Ex. 1001, col. 17, ll. 31–34). Patent Owner further asserts that the ’314 patent discloses that the user ID can be

included in a cookie, associated with demographic data of a user when establishing a new account, or associated with a user login. *Id.* at 8 (citing Ex. 1001, col. 17, ll. 34–41, col. 18, ll. 1–20). Patent Owner concludes that, because the ’314 patent discusses the “unique identifier” in different manners, the meaning of “unique identifier” should not be limited to “information that uniquely identifies a user.” *Id.* at 8–9.

Although we are persuaded by Patent Owner that the scope of “unique identifier” is not limited to identifying a user, we also are persuaded by Petitioner that the meaning of “unique identifier” encompasses information that uniquely identifies a user. Claim 11 recites “providing a unique identifier to the computer” and the “identifier uniquely identifies information sent over said computer network.” Claim 11 does not limit the system, process, or entity that “provides” the unique identifier. Claim 11 further only requires that the “unique identifier” identifies “information” that is sent over the computer network. Patent Owner agrees that claim 11 does not limit what the “information” is. *See* Tr. 32:21–24. Patent Owner also agrees that the discussion of “unique identifier” in the ’314 patent specification does not limit “unique identifier” to mean “information that uniquely identifies a user.” PO Resp. 9. Patent Owner concludes that the ’314 patent specification provides examples and context for the term “unique identifier,” but does not limit the scope of this term. *See Id.* at 7–8.

Accordingly, we determine that the “information” identified by the “unique identifier” can include user information. That is, the “unique identifier” can include a user ID that uniquely identifies information sent over a computer

network as information associated³ with a particular user. This construction is consistent with the several examples provided in the '314 patent specification. See Ex. 1001, col. 17, ll. 13–14, 29–41, col. 18, ll. 1–20. Therefore, we determine that the limitations of “providing a unique identifier to the computer” and the “identifier uniquely identifies information sent over said computer network” to mean any system, process, or entity providing a unique identifier to the computer, where the unique identifier identifies any information that is sent over the computer network. Although our construction is broader than Petitioner’s proposed construction, our construction also encompasses Petitioner’s construction that the “unique identifier” is “information that uniquely identifies a user.”

2. “*demographic information*”

Petitioner proposes that the term “demographic information” means “collected characteristic information about a user that does not identify the user.” Pet. 6–7. Patent Owner does not provide a construction for this term. We agree with Petitioner and construe “demographic information” to mean “collected characteristic information about a user that does not identify the user.” Petitioner points to the context of “demographic information” as used in the '314 patent specification to include time zone, locale, and client hardware. *Id.* (citing Ex. 1001, col. 3, ll. 8–10). We agree that Petitioner’s proposed definition for

³ Patent Owner also presents arguments that the term “associating” cannot be used as a substitute for “providing” and that information is associated “with” a user and not associated “to” a user. PO Resp. 17–20. Although we agree with Patent Owner’s arguments that the term “providing” cannot be substituted for “associating” and that information is associated “with” a user and not “to a user,” we do not find these arguments impact our construction of the limitations “providing a unique identifier to the computer” and the “identifier uniquely identifies information sent over said computer network.” We, however, have considered these arguments in determining our claim construction.

“demographic information” is both reasonable and consistent with its usage in the ’314 patent specification. *Id.*

3. “*software*”

Claim 11 recites “providing the user with download access to computer software that . . . records computer usage information.” Petitioner contends that although the Specification defines “software application” to mean “a program and associated libraries and other files” (Ex. 1001, col. 4, ll. 12–13), the broader term “software” includes “one or more programs.” Pet. 7–8 (citing Ex. 1004 ¶¶ 95–96; Ex. 1007, 4). Patent Owner does not provide a construction for this term. We agree with Petitioner’s proposed construction. The ’314 patent specification specifically defines a “software application” to include only a single program, whereas the claims recite the broader term “software,” which implicitly must encompass more than a single program or application. Accordingly, we construe “software” to mean one or more programs and their associated libraries and files.

4. “*periodically*”

Claim 11 recites “software that . . . periodically requests additional advertising content” and “periodically acquiring said unique identifier and said computer usage information.” Petitioner proposes that the plain meaning of “periodically” means “at regular or irregular time intervals.” Pet. 7 (citing Ex. 1004 ¶¶ 93–94). Patent Owner does not provide a construction for this term. The ’314 patent specification does not provide a special definition for “periodically,” and the claims do not limit further the scope of “periodically.” We agree with Petitioner that the plain and ordinary meaning of “periodically” includes “recurring from time to time,” and, under the broadest reasonable construction, means “at regular or irregular time intervals.” Pet. 7. Accordingly, we construe

“periodically” to mean “recurring from time to time, at regular or irregular time intervals.”

II. ANALYSIS

A. Anticipation of Claims 11, 12, 13, 18, and 20 by Logan

1. Logan (Ex. 1002)

Logan discloses a system for selectively distributing personalized information and entertainment programming to subscribers. Ex. 1002, col. 1, ll. 7–10. The system utilizes a library consisting of a large number of programs created and maintained by a server subsystem, and a remotely located subscriber/player subsystem that connects to the server subsystem. *Id.* at col. 1, ll. 39–52. The server subsystem accepts a subscriber’s information regarding the subscriber’s general interests, characteristics, and preferences. *Id.* at col. 2, ll. 1–6. The subscriber characterization data is matched periodically against stored program segments to identify program segments of significant potential appeal to that subscriber. *Id.*

2. Analysis

Petitioner argues that Logan discloses every limitation of claim 11. Pet. 13–32. Petitioner provides a detailed claim chart that maps each claim limitation to a disclosure in Logan that meets the claim limitation. *Id.*

Patent Owner argues that (a) Logan does not disclose a “unique identifier,” (b) Logan does not disclose “providing a unique identifier to the computer,” (c) Logan does not disclose “selection of advertising content for transfer to the computer in accordance with the demographic information,” and (d) the adoption

of the “broadest reasonable construction” rule exceeds the PTO’s rule making authority.⁴ PO Resp. 5–38.

a. “unique identifier”

Claim 11 recites “providing a unique identifier.” Petitioner argues that Logan describes a subscriber field that contains the “AccountNo” of the subscriber. Pet. 21 (citing Ex. 1002, col. 26, ll. 9–22). Based on Petitioner’s claim construction that “unique identifier” encompasses “information that uniquely identifies a user,” Petitioner argues that Logan’s “AccountNo” describes the claimed “unique identifier.” Pet. 21; *see* Pet. 6 (citing Ex. 1004 ¶ 91).

Patent Owner argues that Logan discloses an “AccountNo,” which is not the same as a “unique identifier.” PO Resp. 6–15. Patent Owner specifically argues that the claim limitation does not make any mention of a “user” and the term “unique identifier” is not limited to an identifier that identifies a user. *Id.* Accordingly, Patent Owner argues that Logan fails to disclose a “unique identifier,” because the claim construction of “unique identifier” provided by Petitioner incorrectly limits “unique identifier” to identifying a user. *Id.*

Petitioner responds that the ’314 patent specification provides an example where the “unique identifier” identifies both a user and information, and, therefore, Petitioner’s construction of “unique identifier” is consistent with the ’314 patent specification. *See* Pet. Reply 4 (citing Ex. 1001, col. 16, ll. 17–24) (“[S]ince client software application 10 communicates with server 22 from time to time and can

⁴ Patent Owner also argues that the testimony submitted by Petitioner from Mr. Gray is not in the form of an affidavit and, therefore, is not compliant under 37 C.F.R. § 42.53. PO Resp. 36. Patent Owner, however, did not serve objections to this testimony within ten days of the institution of trial in this proceeding and did not file a motion to exclude this testimony. Tr. 41:15–20. Accordingly, Patent Owner has withdrawn the objection to Mr. Gray’s testimony. *Id.* at 42:5–9.

report back computer usage information as well as information concerning the display of banners, this information can be associated with the user’s demographic information (by way of their unique ID).” (emphasis omitted)). Petitioner further responds that Logan discloses a “usage log” that is indexed by a subscriber field that includes the “AccountNo” of the subscriber. Pet. Reply 5 (citing Ex. 1002, col. 8, ll. 10–18, col. 26, ll. 9–23). Petitioner also responds that the “AccountNo” identifies the subscriber and identifies computer usage information whenever the “usage log” is uploaded from the computer to the server. *Id.* (citing Ex. 1002, col. 8, ll. 10–18, col. 21, ll. 38–43).

We agree with Petitioner. As discussed above, although we agree with Patent Owner that neither the claims nor the ’314 patent specification limits the scope of “unique identifier” to identifying a user, we also agree with Petitioner that the meaning of “unique identifier” includes information that identifies a user. See Section I.E.1. The limitation of “providing a unique identifier to the computer” means any system, process, or entity that provides a unique identifier to the computer, where the unique identifier identifies any information that is sent over the computer network. See *id.* As also discussed above, Petitioner’s narrower construction of “unique identifier” as “information that uniquely identifies a user” is encompassed by the broadest reasonable construction that is consistent with the ’314 patent specification.

We are persuaded by Petitioner that Logan discloses a “usage log,” which includes computer usage information, and the “usage log” is uploaded from the computer to the server. Pet. Reply 5 (citing Ex. 1002, col. 8, ll. 10–18). Logan further describes that the “usage log” is indexed by a “subscriber” field, which contains the “AccountNo” of the subscriber. *Id.* (citing Ex. 1002, col. 26, ll. 9–23).

Thus, when the “usage log” is uploaded from the computer to the server, both the “subscriber” field and the “AccountNo” identify the information sent over the computer network. That is, both the “subscriber” field and the “AccountNo” identify a particular subscriber with the usage information sent over the computer network. Accordingly, we agree with Petitioner that Logan discloses a “unique identifier” and “providing a unique identifier to the computer.”

b. “providing a unique identifier to the computer”

Patent Owner further contends that Logan fails to disclose “providing a unique identifier.” PO Resp. 15–20. Patent Owner specifically contends that the ’314 patent specification discloses that the computer “receiv[es] an assigned ID from the server” and the Petitioner fails to identify any receipt. PO Resp. 15 (citing Ex. 1001, 8:13). Accordingly, Patent Owner argues that Petitioner has relied on an unsound inherency argument, because Petitioner argues that “the user’s computer must necessarily have been provided with the AccountNo prior to this upload step,” and because Mr. Gray testifies that “one of ordinary skill in the art would recognize that the server necessarily provided this AccountNo to the computer prior to the upload process (e.g., during the initial download process at Step 207).” *Id.* at 15–16 (citing Pet. 21; Ex. 1004 ¶ 111) (emphasis omitted). Patent Owner argues that the reliance on inherency is improper because various alternatives existed at the time, such as sending the “AccountNo” to the subscriber by “snail mail,” where the server would not be sending the “AccountNo” to the subscriber computer. *Id.* at 16 (citing Ex. 2001 ¶ 21).

Petitioner responds that the claims do not require that the computer “receiv[es] an assigned ID from the server.” Pet. Reply 7. Petitioner further responds that in the examples provided by Patent Owner where the subscriber, and

not the subscriber's computer, receives the "AccountNo," "the subscriber would still have to provide the AccountNo to the player 103 in order for the player 103 to upload the usage logs." *Id.* at 8.

We disagree with Patent Owner. As discussed above, we construe the limitation "providing a unique identifier" to mean any system, process, or entity providing a unique identifier to the computer, where the unique identifier identifies any information that is sent over the computer network. *See* Section I.E.1. Although the '314 patent specification describes that the computer "receives an assigned ID from the server," the claims merely require "providing a unique identifier," and we see no reason to import this receiving feature from the '314 patent specification into the claims. Thus, we are not persuaded by Patent Owner's argument that the limitation of "providing a unique identifier" requires that the computer "receiv[es] an assigned ID from the server."

Furthermore, we agree with Petitioner that the limitation "providing a unique identifier to the computer" does not require that the *server* provides the "unique identifier." Pet. Reply 7. As discussed above in our claim construction, any system, process, or entity can provide a unique identifier. *See* Section I.E.1. We see no reason to limit the scope of this limitation such that the *server* must provide the computer with the "unique identifier." Accordingly, the claim limitation is met even if the subscriber manually provides the computer with the "AccountNo" after receiving the "AccountNo," based on Patent Owner's various examples. *See* PO Resp. 16. As such, we agree with Petitioner that Logan discloses "providing a unique identifier to the computer."

c. “selection of advertising content for transfer to the computer in accordance with the demographic information”

Claim 11 recites “selecting advertising content for transfer to the computer in accordance with the demographic information.” Petitioner argues that Logan discloses identifying and inserting advertising segments into Schedule Table 307, which is transferred to player 103. Pet. 23 (citing Ex. 1002, col. 16, ll. 63–67, col. 24, ll. 2–6, Fig. 4). Petitioner further argues that all scheduled advertisements are prioritized based on matching algorithms that incorporate a subscriber’s personal characteristics, such as age, sex, marital status, and size of household. Pet. 24 (citing Ex. 1002, col. 25, ll. 8–10, col. 25, ll. 15–17).

Patent Owner argues that Logan fails to describes this limitation because Logan describes selecting advertisements based on “selections and preferences made by (or inferred for) the user as specified in the subscriber data and usage log database 143” and, therefore, Logan does not describe selecting advertisements based on demographic information. PO Resp. 21–22 (citing Ex. 1002, col. 5, ll. 33–36) (emphasis omitted). Patent Owner specifically argues that Logan describes that advertisements are selected based on interests, and although a demographics matching function exists, demographics are not used in the selection of advertisements. *Id.*; Tr. 25:9–26:4. Patent Owner argues that Logan discloses calculating a “DemographicWeight,” based on demographic information, that is used to “prioritize” already scheduled advertisements, but is not used in the “selection of advertising content . . . in accordance with demographic information.” PO Resp. 22–23, 33–34.

Petitioner responds that Logan is directed to a targeted advertising system and discloses “selecting advertising content for transfer to the computer in accordance with the demographic information.” Pet. Reply 10–13. Petitioner

specifically argues that Logan discloses a “DemographicMatch” function, where the “DemographicMatch” function “returns a value based on an[] advertiser specified relationship based on the subscriber’s personal [characteristics],” including age, sex, marital status, and size of household. Pet. Reply 12 (quoting Ex. 1002, col. 25, ll. 8–9). Petitioner also argues that Logan discloses a “DemographicWeight” value, which indicates the “relative importance of demographic values derived by the DemographicMatch function and the value returned by InterestMatch.” *Id.* (quoting Ex. 1002, col. 25, ll. 12–14). Petitioner concludes that the matching algorithm ultimately compares the subscriber’s characteristics with the target audience defined by the advertisement record to determine which of the advertisements to insert into Schedule Table 307, which subsequently is transferred to player 103. *Id.* (citing col. 16, l. 65 – col. 17, l. 1, col. 25, ll. 15–25).

We agree with Petitioner. Logan discloses that program, advertising, and announcement segments are used to form Schedule Table 307. Ex. 1002, col. 17, ll. 4–10. Program segments are selected for inclusion in Schedule Table 307 by comparing the contents of Programs Table 303, Subscribers Table 313, and Advertisements Table 311. *Id.* at col. 20, ll. 32–35. Program segments can contain advertising, entertainment, news, or other content. *Id.* at col. 24, ll. 62–66. Program Table 303 contains Program_Segment records that describe the nature of each programming, advertising, and announcement segment in the library. *Id.* at col. 17, ll. 11–15. A Program_Segment includes a Subjects field that indicates a value for predetermined subject matter categories, allowing each programming segment to be matched against like codes specified as being subjects of interest by the subscriber as well as codes indicating subjects to which advertised goods and

services may relate. *Id.* at col. 19, ll. 11–18. The Program_Segment includes Youngest and Oldest fields that contain an indication of the age range to which a program segment should appeal. *Id.* at col. 19, ll. 48–50. Similarly, the byte values Female and Male allow the entry of an estimate of the relative interest of a program to each of the sexes. *Id.* at col. 19, ll. 50–55.

Subscriber records include fields for birthdate, sex, marital status, and household size. *Id.* at col. 20, ll. 46–49. This information is used in better selecting program material of possible interest to the subscriber. *Id.* at col. 21, ll. 12–17. Advertisement records include fields for DemographicMatch and DemographicWeight. *Id.* at col. 20, ll. 56–59.

Program segments that are included in Schedule Table 307 are identified by matching the attributes of the subscriber as defined in the Subscriber record (birthdate, sex, marital status, and household size) against the descriptions contained in the Program_Segment records (youngest, oldest, male, female, houselow, househigh) to identify programs and categories of programs likely to be of interest to a subscriber having those attributes. *Id.* at col. 22, ll. 64–67, col. 23, ll. 29–36. This relationship between the attributes of the subscriber and Program_Segment records is specified by the advertiser-supplied function DemographicMatch. *Id.* at col. 23, ll. 36–39.

In order to identify and insert advertising programming segments into Schedule Table 307, the system utilizes the description of the content of the advertisement from the Program_Segment record. *Id.* at col. 24, ll. 1–11. The DemographicMatch function returns a value based on the advertiser's specified relationship and the subscriber's personal characteristics (age, sex, marital status, size of household, etc.). *Id.* at col. 25, ll. 4–10. DemographicWeight is used to

specify the relative importance of the value derived from DemographicMatch. *Id.* at col. 25, ll. 11–14. Advertisements that have been scheduled for a subscriber are then prioritized based on the calculated weight assigned to each advertisement by matching algorithms that compare the characteristics of the subscriber with the makeup of the target audience defined by the fields of the Advertisement Record. *Id.* at col. 25, ll. 15–20. The advertisements then are inserted into the programming Sequence with the advertisement having the highest weight being scheduled first, such that the best fitting advertisements are included in the programming. *Id.* at col. 25, ll. 20–25.

Accordingly, we agree with Petitioner that program segments, including those that contain advertising content, first are scheduled or selected based on a comparison of the fields in the Program_Segment record, such as Youngest/Oldest, Male/Female, MaritalStatus, and HouseLow/HouseHigh, with the Subscriber record, including Birthdate, Sex, MaritalStatus, and Householdsize. Ex. 1002, col. 20, ll. 32–35, col. 22, ll. 64–67, col. 23, ll. 29–36, col. 24, ll. 1–11, col. 24, ll. 62–66. As discussed in our claim construction, we construe “demographic information” to include “characteristic information about a user that does not identify the user” and, therefore, the birthdate, sex, marital status, and household size of a subscriber are demographic information. See Section I.E.2. Accordingly, we agree with Petitioner that Logan discloses that advertisements are scheduled or selected based on the demographic information of a subscriber and target demographic information described in the Program_Segment record of a program segment that includes an advertisement, and, thus, Logan discloses “selecting advertising content for transfer to the computer in accordance with the demographic information.”

We further agree with Petitioner that once program segments have been scheduled or selected for inclusion into Schedule Table 307, the DemographicMatch and DemographicWeight functions prioritize the advertisements based on the calculated weight. Ex. 1002, col. 25, ll. 15–20. Logan discloses that the “advertisements are then preferably inserted into the programming Sequence with the advertisement having the highest weight being scheduled to occur first in the sequence, thereby insuring that the best fitting advertisements are included in the programming.” Ex. 1002, col. 25, ll. 20–25. That is, the sequence of the schedule is reordered such that the advertisements determined to be the “best fitting advertisements” are scheduled or selected to occur first. We agree with Petitioner that the reordering or reselecting of the sequence of scheduled program segments based on a prioritization function based on demographic information also meets the limitation “selecting advertising content for transfer to the computer in accordance with the demographic information.” Pet. Reply 12–13.

d. Adoption of the “Broadest Reasonable Interpretation” Standard

Patent Owner argues that the United States Patent and Trademark Office (“PTO”) does not have substantive rule-making authority and, accordingly, Patent Owner contends that the broadest reasonable construction standard should not apply and claim construction should be carried out in the same manner as applied in a judicial proceeding. PO Resp. 7–9. Patent Owner has not provided a claim construction as would have been carried out in a judicial proceeding or alleged any distinctions between the claim construction that would have been carried out in a judicial proceeding and the broadest reasonable construction. As such, Patent Owner’s argument does not articulate clearly how our determinations would be

different based a different claim construction standard. Accordingly, Patent Owner’s argument is tantamount to a request for an advisory opinion.

In any event, we disagree with Patent Owner. Our reviewing court has held that “Congress implicitly adopted the broadest reasonable interpretation standard in enacting the AIA,” and “§ 316 provides authority to the PTO to conduct rulemaking.” *In re Cuozzo Speed Techs., LLC*, No. 2014-1301, 2015 WL 448667, at *7–8 (Fed. Cir. Feb. 4, 2015). Accordingly, the “broadest reasonable interpretation standard affects both the PTO’s determination of whether to institute IPR proceedings and the proceedings after institution and is within the PTO’s authority under the statute.” *Id.*

3. Conclusion

We determine that Petitioner has demonstrated, by a preponderance of the evidence, that claim 11 is anticipated by Logan. Similarly, we determine that Petitioner has demonstrated, by a preponderance of the evidence, that claims 12, 13, 18, and 20 are anticipated by Logan.

B. Obviousness of Claim 15 over Logan and Robinson

1. Robinson (Ex. 1003)

Robinson discloses a system for the display of advertising to users of an interactive communications medium. Ex. 1003, col. 1, ll. 12–13. The system tracks activities of a subject in an interactive communications medium, derives information from the activities, determines a community for the subject based on the derived information, and determines which advertisements to present to the subject based on the determined community. *Id.* at col. 3, l. 62 – col. 4, l. 6.

Tracking data can be stored locally on a user’s local computer. *Id.* at col. 7, ll. 26–28. A cookie can be generated and stored on the user’s computer. *Id.* at

col. 8, ll. 42–44. The cookie is the only way to associate information stored on the central server with that particular user. *Id.* The cookie contains the identifier of the user, and the user ID in the central database is updated with tracking information from the cookie. *Id.* at col. 10, ll. 11–14.

2. Analysis

Petitioner argues that Logan discloses every limitation of claim 15, except “storing a cookie on the computer.” Pet. 57–60. Petitioner argues that Robinson discloses this limitation. *Id.* Petitioner argues that a person with ordinary skill in the art would have been motivated to combine the cookie mechanism that stores a cookie locally on a user’s computer, as disclosed by Robinson, with Logan’s system in order to provide “a very high level of security.” Pet. 59–60 (citing Ex. 1004 ¶ 159 (citing Ex. 1003, col. 8, ll. 39–41)).

Patent Owner first argues that claim 15 would not have been obvious over Logan and Robinson because Logan fails to disclose the limitations of independent claim 11, from which claim 15 depends. PO Resp. 34–35. We are not persuaded that Logan does not disclose the limitations of claim 11 for the reasons discussed above, and, therefore, we are not persuaded by this argument for the same reasons. See Section II.A.2.

Patent Owner further argues that Petitioner’s articulated motivation for combining Logan and Robinson is “unadulterated hindsight” and a person with ordinary skill in the art would not have been motivated to combine a feature from a secondary reference simply because it provides an “advantage.” PO Resp. 35–36. Patent Owner argues that Petitioner fails to identify a security inadequacy in Logan that would have motivated a person of ordinary skill to seek different security options. Petitioner responds that Patent Owner’s argument is not supported by an

expert declaration or testimony, and, therefore, is mere attorney argument. Pet. Reply 13–14. Petitioner further responds that the motivation of enhanced security is provided by Robinson. *Id.* (citing Ex. 1003, col. 8, ll. 39–41; Ex. 1004 ¶ 159).

We disagree with Patent Owner. We are persuaded by Petitioner that a person with ordinary skill in the art would have been motivated to modify Logan with Robinson’s cookie mechanism in order to increase security by storing information locally on a user’s computer. Pet. 59–60. An increase in security is an advantage derived from combining Logan and Robinson and is disclosed expressly by Robinson, and, therefore, is an articulated reasoning with a rational underpinning for combining the references. *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007). Furthermore, Petitioner establishes that the motivation to increase security is disclosed expressly by Robinson. Pet. 59–60 (citing Ex. 1003, col. 8, ll. 39–41). Thus, this motivation was known at the time of the ’314 patent and, therefore, we do not consider Petitioner’s rationale as improper hindsight.

3. Conclusion

We determine that Petitioner had demonstrated, by a preponderance of the evidence, that claim 15 would have been obvious over Logan and Robinson.

C. Patent Owner’s Motion to Amend

Patent Owner proposes substitute claims 23–34, contingent in the “event that original claim 11 is found to be not patentable.” Mot. to Amend 1. As discussed above, Petitioner has demonstrated by a preponderance of the evidence, that all of the challenged claims are unpatentable. Therefore, Patent Owner’s contingent Motion to Amend is before us for consideration.

As the moving party, Patent Owner bears the burden of proof to establish that it is entitled to the relief requested. 37 C.F.R. § 42.20(c). Entry of the

proposed amendment is not automatic, but only upon Patent Owner's having demonstrated the patentability of those claims.

1. Substitute Claims 23–34

Independent claim 23, proposed substitute for independent claim 11, is reproduced below:

23. (Proposed substitute for original claim 11) A method of providing demographically-targeted advertising to a computer user, comprising the steps of:

- providing a server that is accessible via a computer network, permitting a computer user to access said server via said computer network,

- acquiring demographic information about the user, said demographic information including information specifically provided by the user in response to a request for said demographic information,

- providing the user with download access to computer software that, when run on a computer, displays advertising content, records computer usage information concerning the user's utilization of the computer, and periodically requests additional advertising content, wherein the computer usage information comprises information about the user's interactions with said computer software displaying advertising content and at least one other program,

- transferring a copy of said software to the computer in response to a download request by the user,

- providing a unique identifier to the computer, wherein said identifier uniquely identifies information sent over said computer network from the computer to said server,

- associating said unique identifier with demographic information in a database,

- ~~selecting advertising content for transfer to the computer in accordance with demographic information associated with said unique identifier;~~

- ~~transferring said advertising content from said server to the computer for display by said program,~~

periodically acquiring said unique identifier and said computer usage information recorded by said software from the computer via said computer network, ~~and~~

associating said computer usage information with said demographic information using said unique identifier,

selecting advertising content for transfer to the computer in accordance with real-time and other computer usage information and demographic information associated with said unique identifier, and transferring said advertising content from said server to the computer for display by said program.

Substitute claims 24–34, recite the same limitations as original claims 12–22 but depend from substitute claim 23.

2. Claim Construction

Claim construction is an important step in a patentability determination. *Oakley, Inc. v. Sunglass Hut Int’l*, 316 F.3d 1331, 1339 (Fed. Cir. 2003); *Medichem, S.A. v. Rolabo, S.L.*, 353 F.3d 928, 933 (Fed. Cir. 2003) (“Both anticipation under § 102 and obviousness under § 103 are two-step inquiries. The first step in both analyses is a proper construction of the claims The second step in the analyses requires a comparison of the properly construed claim to the prior art.” (internal citations omitted)). A motion to amend claims must identify how the proposed substitute claims are to be construed, especially when the proposed substitute claims introduce new claim terms. *See Idle Free Sys., Inc. v. Bergstrom, Inc.*, Case IPR2012-00027, slip op. at 7 (PTAB June 11, 2013) (Paper 26) (informative).

Patent Owner discusses that substitute claim 23 introduces the additional elements of “wherein the computer usage information comprises information about the user’s interactions with said computer software displaying advertising content and at least one other program” and the selecting of advertising content step is in

accordance with “real-time and other computer usage information.” Mot. to Amend 6 (emphasis omitted). Patent Owner argues that these features distinguish the proposed substitute claims from all of the cited prior art. *Id.* at 13.

Patent Owner, however, does not provide claim constructions for how the new claim terms should be construed. For example, Patent Owner does not provide any discussion or explanation as to how the limitation “selecting advertising content for transfer to the computer in accordance with real-time” is to be construed. Absent a proposed claim construction for this limitation, it is unclear as to whether the “selecting” or “transfer” is in accordance with “real-time.” Accordingly, Patent Owner’s Motion to Amend does not provide adequate information for us to determine whether the substitute claims are patentable over the prior art. Therefore, we are not persuaded that Patent Owner has met its burden to demonstrate the patentability of the proposed substitute claims under 37 C.F.R. § 42.20(c).

3. *Written Description*

A motion to amend claims must identify clearly the written description support for each proposed substitute claim. 37 C.F.R. § 42.121(b). The requirement that the motion to amend must set forth the support in the original disclosure of the patent is with respect to *each claim*, not for a particular feature of a proposed substitute claim. The written description test is whether the original disclosure of the application relied upon reasonably conveys to a person of ordinary skill in the art that the inventor had possession of the claimed subject matter as of the filing date. *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). Thus, the motion should account for the claimed subject matter as a whole, i.e., the *entire* proposed substitute claim, when showing

where there is sufficient written description support for each claim feature. *See Nichia Corp. v. Emcore Corp.*, Case IPR2012-00005, slip op. at 4 (PTAB June 3, 2013) (Paper 27) (representative).

Patent Owner points to several passages of the “as-filed version” of the ’314 patent application for support for substitute claim 23. Mot. to Amend 6–7. Patent Owner, however, fails to point out with any particularity or explanation as to where in the several cited passages the additional limitations are supported. Patent Owner further fails to provide citations and explanations for support for substitute claims 24–34. For example, it is unclear from Patent Owner’s discussion in which passage there is support for the limitation “selecting advertising content for transfer to the computer in accordance with real-time.” We have reviewed the passages cited by Patent Owner and are unable to discern readily where support for this limitation is found. Accordingly, we are not persuaded that Patent Owner has met its burden to demonstrate written description support for each proposed substitute claim as required by 37 C.F.R. § 42.121(b)(1) and § 42.121(b)(2).

4. Conclusion

For the foregoing reasons, Patent Owner has not satisfied its burden of proof and, accordingly, Patent Owner’s Motion to Amend is denied.

III. CONCLUSION

We conclude that Petitioner has demonstrated by a preponderance of the evidence that (1) claims 11, 12, 13, 18, and 20 are anticipated by Logan and (2) claim 15 would have been obvious over Logan and Robinson.

This is a final written decision of the Board under 35 U.S.C. § 318(a). Parties to the proceeding seeking judicial review of this decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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IV. ORDER

Accordingly, it is hereby:

ORDERED that claims 11, 12, 13, 15, 18, and 20 of U.S. Patent No. 6,628,314 are held unpatentable; and

FURTHER ORDERED that Patent Owner’s Motion to Amend is *denied*.

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Patent 6,628,314

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