Trials@uspto.gov
Tel: 571-272-7822

Paper 32
Date: September 7, 2022

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TWITTER, INC. and GOOGLE LLC,
Petitioner,

v.

B.E. TECHNOLOGY, LLC,
Patent Owner.

IPR2021-00484
Patent 8,549,410 B2

Before NEIL T. POWELL, MIRIAM L. QUINN, and IFTIKHAR AHMED, *Administrative Patent Judges*.

POWELL, *Administrative Patent Judge*.

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

I. INTRODUCTION

A. BACKGROUND

Twitter, Inc. and Google LLC (collectively, "Petitioner") filed a Petition for *inter partes* review of claims 1–19 of U.S. Patent No. 8,549,410 B2 (Ex. 1001, "the '410 patent"). Paper 3 ("Pet."). B.E. Technology, LLC ("Patent Owner") filed a Preliminary Response. Paper 7 ("Prelim. Resp."). After considering the merits of the Petition and the arguments against institution by Patent Owner, we instituted *inter partes* review of claims 1–19 of the '410 patent. Paper 8 ("Decision on Institution," "Dec. on Inst.").

During the trial phase, Patent Owner filed a Response. Paper 21 ("PO Resp."). Petitioner filed a Reply. Paper 23 ("Reply"). Patent Owner filed a Sur-reply. Paper 24 ("Sur-reply"). We held Oral Argument on June 6, 2022, the transcript of which is in the record. Paper 31 ("Tr.").

We have jurisdiction under 35 U.S.C. § 6(c). This Final Written Decision is entered pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 47.73. For the reasons discussed below, Petitioner has shown by a preponderance of the evidence that claims 1–19 of the '410 patent are unpatentable.

B. RELATED PROCEEDINGS

The parties note that the '410 patent is involved in *B.E. Technology, L.L.C. v. Twitter, Inc.*, Case No. 1:20-cv-00621, and *B.E. Technology, L.L.C. v. Google LLC*, Case No. 1:20-cv-00622, both in the United States District Court for the District of Delaware. Pet. 1; Paper 6, 1. The parties also identify as related matters IPR2014-00029, IPR2014-00031, IPR2014-00033, IPR2014-00038, IPR2014-00039, IPR2014-00040, IPR2014-00044, IPR2014-00052, IPR2014-00053, IPR2014-00698, IPR2014-00699,

IPR2014-00738, IPR2014-00743, IPR2014-00744, IPR2021-000482, IPR2021-00483, and IPR2021-00485. Pet. 2; Paper 6, 1–2.

The ’410 patent claims priority to a number of prior patent applications, including U.S. Patent Application No. 09/118,351 (“the ’351 application”). Ex. 1001, code (63). U.S. Patent No. 6,628,314 (“the ’314 patent”) also claims priority to the ’351 application. Ex. 1053, code (62). The ’314 patent was subject to *inter partes* review in IPR2014-00039 and IPR2014-00738 (Ex. 1037), as well as IPR2014-00052, IPR2014-00053, IPR2014-00698, IPR2014-00743, IPR2014-00744 (Ex. 1038). The Final Written Decision for IPR2014-00039 and IPR2014-00738 (“the 39/738 IPR”) held that it had been “shown by a preponderance of the evidence that claims 11–22 of the ’314 patent are unpatentable.” Ex. 1037, 2–3. That holding was affirmed by the Federal Circuit in *B.E. Technology, L.L.C. v. Google, Inc.*, No. 2015-1827, 2016 WL 6803057 (Fed. Cir. 2016).

C. THE ’410 PATENT

The ’410 patent relates to advertising to a computer user via the internet. Ex. 1001, 5:10–13. The ’410 patent explains that certain known types of software had allowed delivery of advertisements to computer users.

Id. at 1:42–56. The '410 patent shows software for "a first embodiment of the invention" in Figure 1. *Id.* at 5:32–35. Figure 1 is reproduced below.

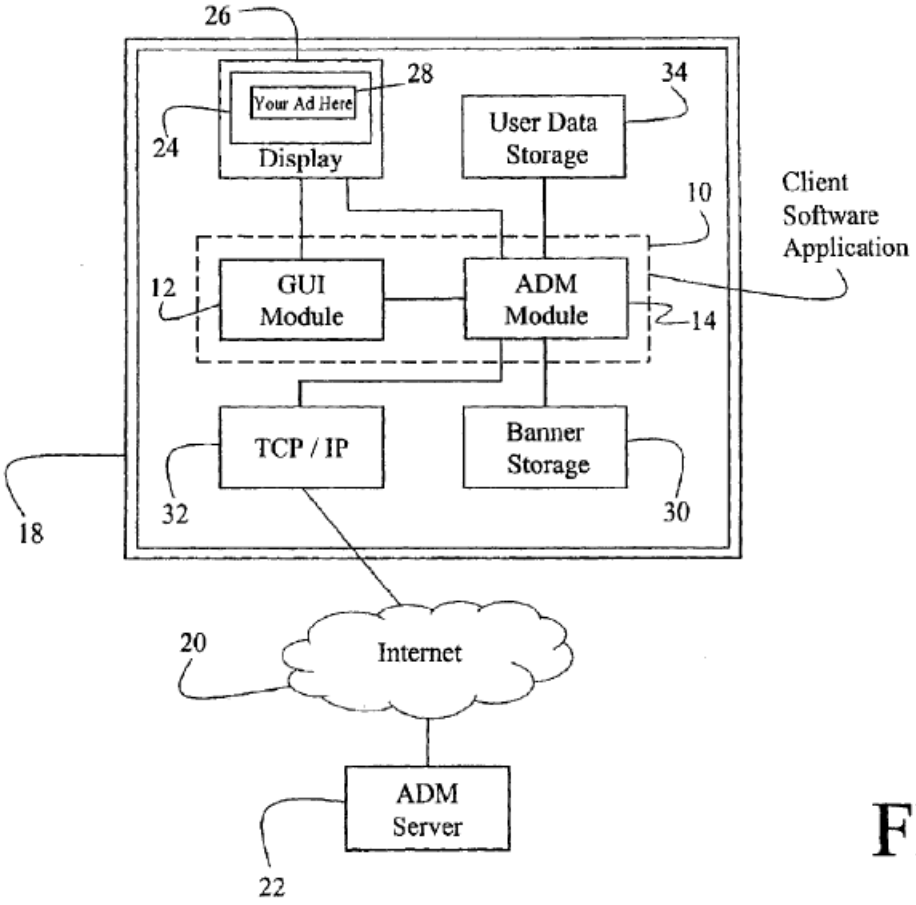

FIG. 1

Figure 1 shows computer 18 with client software application 10. *Id.* at 6:16–24. Figure 1 also shows Internet 20 and ADM server 22. *Id.* at 6:16–34.

Client software application 10 includes graphical user interface (GUI) program module 12, as well as advertising and data management (ADM) program module 14. *Id.* at 6:16–19. These program modules work together to supply an interface for the computer user to access other software applications and information on a network, such as Internet 20. *Id.* at 6:19–24. GUI module 12 includes basic programming for providing a user interface. *Id.* at 6:27–28. "ADM module 14 provides the basic management of the display and refreshing of advertising as well as the acquisition and

reporting of computer usage information to an advertising and data management (ADM) server 22 via the Internet 20." *Id.* at 6:30–34. Also,

> features are provided to deliver advertising (e.g., banner advertising) to users based on demographic and computer usage information or data captured from users (e.g., data Supplied by users during registration, and demographic and usage demographic data captured from information obtained based on web site visitation, applications employed, and other usage data); and that targeted advertising can be displayed to those users during the course of use of the computer by those individual users, irrespective of whether those users are connected to a network (i.e., are online) or whether those users are using the computer for a non-network application (i.e., are offline).

Id. at 6:40–51.

D. ILLUSTRATIVE CLAIM

Of the challenged claims, claim 1 is independent. Claims 2–19 depend, directly or indirectly, from claim 1. Claim 1 is illustrative and is reproduced below with certain reformatting:[1]

1. A method comprising:

[1.1] permitting a computer user to access one or more servers via a network;

[1.2.1] transferring a copy of software to a computer associated with the computer user,

[1.2.2] the software being configured to run on the computer to display advertising content and record computer usage information associated with utilization of the computer,

[1] We have added the same numbers used by the Petition to identify each of claim 1's limitations. Additionally, in order to display each numbered claim limitation separately, we have added carriage returns to certain portions of the claim language. We also have omitted a carriage return from claim limitation [1.3].

[1.2.3] wherein the computer usage information includes data regarding one or more programs run on the computer;

[1.3] determining a unique identifier associated with the computer, wherein the identifier uniquely identifies information sent from the computer to the one or more servers;

[1.4] determining that one or more keywords of a plurality of keywords are associated with a displayed webpage with the plurality of keywords being stored in a memory associated with the one or more servers;

[1.5] selecting an advertisement to be displayed on the computer, the selection based at least on the one or more keywords together with information associated with the unique identifier identifying the computer;

[1.6] receiving a request for an advertisement from the computer accessing the web page; and

[1.7] providing the selected advertisement for display on the computer in response to the received request.

Ex. 1001, 34:26–51.

E. ASSERTED GROUNDS OF UNPATENTABILITY

Petitioner challenges the patentability of claims 1–19 of the '410 patent on the following grounds (Pet. 5):

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1–3, 5–8, 10–13, 15–19	103(a)[2]	Guyot[3], Apte[4]

[2] The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) ("AIA"), amended 35 U.S.C. § 103. Because the '410 patent has an effective filing date prior to the effective date of the applicable AIA amendments, we refer to the pre-AIA version of § 103.

[3] Guyot et al., U.S. 6,119,098, issued Sep. 12, 2000 (Ex. 1041, "Guyot").

[4] Apte et al., U.S. 7,225,142 B1, issued May 29, 2007 (Ex. 1008, "Apte").

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1–3, 5–9, 12, 13, 15–19	103(a)	Robinson[5], Kobata[6], Apte, LeMole[7]
4	103(a)	Guyot, Apte, Linsk[8]
4	103(a)	Robinson, Kobata, Apte, LeMole, Linsk
9	103(a)	Guyot, Apte, Robinson
10, 11	103(a)	Robinson, Kobata, Apte, LeMole, Gerace[9]
14	103(a)	Guyot, Apte, RFC1635[10]
14	103(a)	Robinson, Kobata, Apte, LeMole, RFC1635

In support of its unpatentability contentions, Petitioner also relies on the Declaration of Henry H. Houh, Ph.D. Ex. 1007 ("Houh Decl."). In support of its Reply, Petitioner filed a Supplemental Declaration of Dr. Houh. Ex. 1093 ("Supp. Houh Decl."). The deposition transcript of Dr. Houh is filed in the record as Exhibit 2006 ("Houh Depo.").

Patent Owner relies on the Declaration of Mr. Ivan Zatkovich. Ex. 2007 ("Zatkovich Decl."). The deposition transcript of Mr. Zatkovich is filed in the record as Exhibit 1098 ("Zatkovich Depo.").

[5] Robinson, U.S. 5,918,014, issued June 29, 1999 (Ex. 1004, "Robinson").

[6] Kobata, U.S. 6,058,418, issued May 2, 2000 (Ex. 1005, "Kobata").

[7] LeMole et al., U.S. 6,009,410, issued Dec. 28, 1999 (Ex. 1009, "LeMole").

[8] Linsk, U.S. 6,138,142, issued Oct. 24, 2000 (Ex. 1023, "Linsk").

[9] Gerace, U.S. 5,848,396, issued Dec. 8, 1998 (Ex. 1012, "Gerace").

[10] Peter Deutsch et al., How to Use Anonymous FTP (1994) (Ex. 1016, "RFC 1635").

II. ANALYSIS

A. LEVEL OF ORDINARY SKILL IN THE ART

In determining whether an invention would have been obvious at the time it was made, we consider the level of ordinary skill in the pertinent art at the time of the invention. *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966). "The importance of resolving the level of ordinary skill in the art lies in the necessity of maintaining objectivity in the obviousness inquiry." *Ryko Mfg. Co. v. Nu-Star, Inc.*, 950 F.2d 714, 718 (Fed. Cir. 1991). The "person of ordinary skill in the art" is a hypothetical construct, from whose vantage point obviousness is assessed. *In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998). "This legal construct is akin to the 'reasonable person' used as a reference in negligence determinations" and "also presumes that all prior art references in the field of the invention are available to this hypothetical skilled artisan." *Id.* (citing *In re Carlson*, 983 F.2d 1032, 1038 (Fed. Cir. 1993)).

Petitioner proffers that a person having ordinary skill in the art "would have had a bachelor's degree in electrical engineering, computer engineering, computer science, or a related subject, and two to three years of work experience in network-based technologies." Pet. 9 (citing Houh Decl. ¶¶ 57–61). Patent Owner "only disagrees with Petitioner's and Dr. Houh's assessment of the applicable level of skill in the art with respect to its failure to acknowledge that a person of ordinary skill in the art would have a working knowledge of network-based targeted advertising." PO Resp. 9. We agree with Petitioner's proffered level of ordinary skill in the art and with Patent Owner's clarification because the prior art of record is in the field of network-based targeted advertising, and knowledge of such a field

would assist a person of ordinary skill in the art in appreciating the tools necessary to implement it. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (stating that the absence of specific findings on the level of skill in the art does not give rise to reversible error where the prior art itself reflects an appropriate level and a need for testimony is not shown). Accordingly, we adopt Petitioner's proffered level of ordinary skill in the art with the caveat proposed by Patent Owner that the level of skill includes working knowledge of network-based targeted advertising.

B. CLAIM INTERPRETATION

In an *inter partes* review requested in a petition filed on or after November 13, 2018, we apply the same claim construction standard used in district courts, namely that articulated in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). *See* 37 C.F.R. § 42.100(b).

In applying that standard, claim terms generally are given their ordinary and customary meaning as would have been understood by a person of ordinary skill in the art at the time of the invention and in the context of the entire patent disclosure. *Phillips*, 415 F.3d at 1312–13. "In determining the meaning of the disputed claim limitation, we look principally to the intrinsic evidence of record, examining the claim language itself, the written description, and the prosecution history, if in evidence." *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d 1005, 1014 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1312–17).

In our Decision on Institution, we did not expressly construe any terms, as neither party proposed specific claim constructions at that stage. *See* Dec. on Inst. 8; Pet. 10–11; Prelim. Resp. 10. During the trial, a dispute arose as to the meaning of several terms. Specifically, in Petitioner's Reply,

Petitioner alleges that Patent Owner "reads additional requirements into the claims beyond what is required by the plain language" (Reply 1), and proposes constructions for the disputed terms (*see id.* at 1–7). Patent Owner responds in turn with proposed constructions. *See* Sur-reply 1–7. We discuss below the terms at issue and the parties' respective contentions.

1. *"a computer user" and "a computer"*

Claim 1 recites "permitting a computer user to access one or more servers via a network" and "transferring a copy of software to a computer associated with the computer user." According to Petitioner, the claim recites only one "computer" and only one "computer user." Reply 1. Nevertheless, Petitioner argues, the claim language permits multiple computers or multiple users, but *does not require* multiple computers or multiple users. *Id.* (citing *Baldwin Graphic Sys., Inc. v. Siebert, Inc.*, 512 F.3d 1338, 1342 (Fed. Cir. 2008)). Petitioner's arguments address whether the claim may properly read on a single user per computer scenario. *Id.*

Patent Owner agrees with Petitioner that "the claims do not ***preclude*** a single-user/single-computer configuration." Sur-reply 1. Patent Owner however takes issue with Petitioner's "single-user/single-computer" configuration because of the scope of a different claim term: the "unique identifier identifying the computer." *Id.* According to Patent Owner, Petitioner has failed to show that a unique identifier identifies, and is associated with, a computer. *Id.* at 1–2 (concluding that "Guyot and Robinson include ***no*** teaching of an advertising system limited to a 'single-user/single-computer' configuration, and Petitioner cites ***nothing*** in those references to the contrary.").

We find Patent Owner's arguments non-responsive to the issue presented by Petitioner concerning the terms "computer" and "computer user." Indeed, there is no dispute between the parties that the claim may encompass situations in which a single computer is operated by a single computer user, though the claim could also encompass multiple computers and multiple users. *See* Reply 1; Sur-reply 1; *see also KCJ Corp. v. Kinetic Concepts, Inc.*, 223 F.3d 1351, 1356 (Fed. Cir. 2000) ("This court has repeatedly emphasized that an indefinite article 'a' or 'an' in patent parlance carries the meaning of 'one or more' in open-ended claims containing the transitional phrase 'comprising.'"). Accordingly, because the parties' disputes center around other claim terms, we are not persuaded that the scope of "computer" and "computer user" needs further clarification.

2. *"computer associated with the computer user"*

Having determined that the claim may encompass a single computer user operating a single computer, we look to whether the requirement that the computer and the computer user be associated, limits further the claim scope. Petitioner has proposed a construction for the term "associated" as: "to connect or join together, combine [], either directly or indirectly." Reply 2 (internal citations omitted). Patent Owner takes issue with this proposed construction as it pertains to the association between the computer and the computer user. Specifically, Patent Owner argues that an association "involves an actual link or connection between two pieces of data." Sur-reply 2 (citing Zatkovich Decl. ¶ 48). Patent Owner also posits that "it has to be a connection between data representing a user and data representing a computer." Tr. 53:9–12. According to Patent Owner, the Specification supports such an interpretation because it describes maintaining a table of

users registered for a particular machine and that the application maintains a listing of users registered for a particular computer. *Id.* at 53:12–14 (referring to IPR2021-00482, Ex. 1001, 28:4–7, 16–17). Patent Owner also points to the Board's Final Written Decision in a different, but related proceeding, *Facebook, Inc. v. B.E. Technology, LLC*, IPR2014-00052, Paper 10 (PTAB March 31, 2015),[11] where, according to Patent Owner, "the Board recognized that 'associating,' in the context of the claims, depends on the disclosed connection between the two pieces of data at issue," and that "[t]he same should apply here." Sur-reply 3–4; Ex. 1038, 8.

We are not persuaded by Patent Owner's argument. The word "associated" appears six times in claim 1:

i. "computer *associated* with the computer user";
ii. "computer usage information *associated* with utilization of the computer";
iii. "unique identifier *associated* with the computer";
iv. "keywords . . . *associated* with a displayed webpage";
v. "memory *associated* with the one or more servers"; and
vi. "information *associated* with the unique identifier."

Ex. 1001, 34:29–30, 32–33, 36–37, 40–43, 46–47 (emphases added). The claim is silent as to how any of these recited "associations" is provided. The claim does not, for instance, specify providing databases that link or connect the "associated" items. For example, the claim says nothing about a stored link or connection for the "computer" that is "associated" with the "computer user." *See id.* at 34:29–30. Similarly, the claim does not recite

[11] Hereinafter we refer to this decision of the Board as the '52 FWD. Ex. 1038.

any stored link or connection in the recitation of "determining that one or more keywords of a plurality of keywords are associated with a displayed webpage with the plurality of keywords being stored in a memory associated with the one or more servers." *Id.* at 34:40–43. This claim language recites that the "keywords" themselves are "stored in memory," but does not recite that any link or connection is stored in memory. *Id.*

We recognize that, within the context of the Specification, the association of the computer and the computer user may be implemented in one embodiment by using a table or registry of users that are authorized to use that computer. *See id.* at 29:66–30:2 (explaining that "registration can manage the relationships between installations and users; recognizing that a user may use more than one installation and an installation may support more than one user."). Notwithstanding such an embodiment, however, the claim provides no technical requirement of the "computer"-to-"computer user" association. Patent Owner's argument presents us with the difficult process of drawing a line between interpreting the claim within the context of the Specification and importing embodiments from that Specification into the claim. We may not "read into a claim a limitation from a preferred embodiment, if that limitation is not present in the claim itself." *Bayer AG v. Biovail Corp.*, 279 F.3d 1340, 1348 (Fed. Cir. 2002); *see also* Reply 2 (Petitioner arguing that Patent Owner's support in the Specification reflects a non-limiting example that does not limit the claims). Accordingly, we decline to import into the word "associated" the requirement of an actual link or connection between data, such as via a table or registry.

On the other hand, Patent Owner makes a valid point that in a computer network environment, a person of ordinary skill in the art would

recognize that associating requires a relationship between two pieces of information. PO Resp. 14 (arguing additional requirement of a database, table, or the like). Although we do not see the claims as supporting technical details of how these relationships are maintained (such as by using a database), we understand the instances of "associated" in the claim point to a relationship between data or information. For instance, in one claim limitation, the "computer usage information" has a relationship (or is "associated") with the "utilization of the computer" because that information *includes* "data regarding one or more programs run on the computer." Ex. 1001, 34:32–35. Thus, the relationship between the recited pieces of data is that of a set and a subset: "utilization of the computer" is part of "computer usage information." The plain use of the word "associated" in this manner informs us that the term should not be restricted to any particular manner of recording how the pieces of information are related or connected.

With the concept of "relationship" in mind, we find that Petitioner's proffered claim construction is in accord: to join or connect together. *See* Reply 1–2. The connection of the recited claim elements, in the plain and ordinary context of the claim language, refers to a relationship between these elements. And this connection or relationship need not be direct, like the rows of a table, or the list of users in a specific computer's registry. Rather, a connection or relationship could also be indirect, such as the example in the Specification of the relationship between a user and the computer. *See id.* at 2 (citing Ex. 1001, 22:45–48). In that example, a user ID (representing a computer user in the computer network) is assigned to the copy of the software downloaded by the user. Ex. 1001, 22:45–48. And it is the direct

relationship between the user ID and that particular copy of the software that evidences also an indirect relationship between the user (via the user ID) and *the computer on which the software is installed*. Put another way, by assigning the user ID to the client software application, the user ID is also connected (or has a relationship with), albeit indirectly, to the computer on which the client software application is installed. Thus, we determine that Patent Owner's contention of requiring a "relationship" for the term "association" is appropriate if taking also into account that the relationship may be direct or indirect, as explained above, and without requiring a specific data linkage as argued by Patent Owner.

Patent Owner presents additional argument concerning the '52 FWD (Ex. 1038) involving U.S. Patent 6,628,314 ("the '314 patent"), which is related, through a series of continuations, to the '410 patent. In the '52 FWD the Board determined that the term "associating"—in the limitations "associating said unique identifier with demographic information in a database" and "associating said computer usage information with said demographic information using said unique identifier"—"requires that the datasets of usage information and demographic information be associated, directly or indirectly, using the unique identifier." Ex. 1038, 9. The claim language at issue in that proceeding, however, materially differs from that in the current proceeding, because there the claimed "associating" expressly refers to information in a database. *See id.* at 8.[12] Here, however, claim 1

[12] The Board applied the broadest reasonable interpretation standard in IPR2014-00052, representing another difference between the proceedings. *See* IPR2014-00052, Paper 45, 9. However, we note that during oral argument, Patent Owner argued that under the *Phillips* claim construction

does not recite a database (or any other data structure) used in forming an association between the computer and computer user. Accordingly, the Board's construction of "associating" in the '52 FWD does not warrant that we adopt Patent Owner's proposed construction for "associated" requiring an actual data linkage, for example, in a database. *See* Sur-reply 3; PO Resp. 14.

Having reviewed the arguments briefed and presented during oral argument (as described above), we are not persuaded that the phrase "computer associated with the computer user" requires linking data representing the computer and computer user, such as for example, in a table, registry, or a database. As stated above, the phrase "associated," under the plain reading of the claim language and as supported by the Specification, and in light of Patent Owner's argument means "to connect or join together, or having a relationship, either directly or indirectly." Therefore, the phrase "computer associated with the computer user" means that "the computer is connected, joined together, or has a relationship with the computer user."

3. *"unique identifier associated with the computer" and "unique identifier identifying the computer"*

Claim 1 recites "determining a unique identifier associated with the computer, wherein the identifier uniquely identifies information sent from the computer to the one or more servers," and "selecting an advertisement to be displayed on the computer, the selection based at least on the one or more keywords together with information associated with the unique identifier

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standard we would not need to reach a different conclusion because the issue of data was not disputed in the that case. Tr. 52:9–17.

identifying the computer." Thus, claim 1 requires a "unique identifier" that is both "associated with the computer" and "identif[ies] the computer." Ex. 1001, 34:36–39, 44–47.

Petitioner contends that "[t]he only thing 'uniquely' identified in claim 1 is 'information sent from the computer to the one or more servers.'" Reply 3. According to Petitioner, "the computer in claim 1 need not be identified 'uniquely,'" and "nothing prevents this computer from being identified through its user (i.e., using an identifier of its user)." *Id.* at 3–4 (citing Ex. 1098, 21:11–17). For support on this point, Petitioner points to the Board's Final Written Decision in *Microsoft Corp. v. B.E. Technology, LLC*, IPR2014-00039, Paper 43 (PTAB March 31, 2015),[13] where Petitioner asserts that the Board declined "to construe the term 'providing a unique identifier *to the computer*' in the related '314 Patent to require that the identifier must 'identif[y] the computer and *not the user*.'" Reply 5 (alteration in original).

Further, Petitioner explains that an identifier exclusive to the computer would not function as required by claim 1 "because there would be no information with which the function of selecting an advertisement could be performed," where the advertisement is targeted for a particular user in claim 1. Tr. 19:4–17. Accordingly, Petitioner argues, "claim 1 permits the computer to be identified through the user's association with the computer and nothing prohibits the same identifier from being associated with the user." *Id.* at 22:17–20. In addition, in reading the "unique identifier" language on the prior art, Petitioner argues that "any 'user' and 'computer

[13] Hereinafter we refer to this decision of the Board as the '39 FWD. Ex. 1037.

identifier[]' distinction is in nomenclature only: an 'identifier' is 'any text string used as a label' and a 'user identifier' text string could just as easily be a 'computer identifier.'" Reply 10 (citing Supp. Houh Decl. ¶¶ 51–53; Ex. 1094, 243; Ex. 1098, 66:18–69:13).

Patent Owner does not dispute Petitioner's contention "that an 'identifier,' in the context of the claimed invention, is a 'text string used as a label.'" Sur-reply 4 (citing Reply 10; Ex. 1098, 66:18–69:13). Patent Owner disagrees, however, with Petitioner's reliance on the Board's determination in IPR2014-00039 in proposing a broader construction of "unique identifier." *See id.* at 5. Patent Owner also takes issue with Petitioner's position because it views the claim as requiring a relationship or link between the identifier and *the computer*—not a relationship between the identifier and *the user*. PO Resp. 25 ("However, the claims unambiguously require a unique identifier identifying the 'computer' and not the user."); *see also* Sur-reply 5–6 ("In Response, B.E. demonstrated that the claim language itself undisputedly required an identifier for a ***computer***."). For instance, Patent Owner asserts that "the claim language itself undisputedly require[s] an identifier for a ***computer***," and that "the '410 Patent discloses various 'unique identifier[s] identifying a computer.'" Sur-reply 5–6 (citing PO Resp. 28–29) (alteration in original). In support of Patent Owner's position, Mr. Zatkovich (Patent Owner's expert) testified that "[t]he claims unambiguously require a unique identifier identifying the 'computer' and not the user." Zatkovich Decl. ¶ 69; *see also* PO Resp. 25. During oral argument, Patent Owner clarified its position further stating that a unique identifier can be a user identifier, but that the prior art reference "has to say this unique identifier, which can be any string of text, identifies a computer."

Tr. 60:4–13. Patent Owner maintained that "[t]he unique identifier of the claim that identifies a computer is the installation ID" (*id.* at 69:21–22).

The parties' primary dispute is whether a user identifier may be "associated with" *and* also "identify" the computer. We addressed above the construction of the term "associated"—"to connect or join together, or having a relationship, either directly or indirectly." So, that term's scope does not need to revisited here. Furthermore, neither party seems to dispute the scope of what it means to "identify the computer." Rather, the parties' dispute warrants that we focus our claim construction analysis on whether the claim supports or rejects the notion that a user identifier may meet the limitation of a "unique identifier."

We start with the parties' discussion of the Board's decision in IPR2014-00039. In the '39 FWD, the Board stated that "providing a unique identifier to the computer," where the "identifier uniquely identifies information sent over said computer network," in the '314 patent, 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." Ex. 1037, 10.[14] In so determining, the Board was not persuaded by Patent Owner's argument that "the unique identifier identifies the computer and not the user." *Id.* Notably, however, the claim at issue in the '314 patent did not include language similar to the claim 1 language in the '410 patent, which recites "the unique identifier identifying the computer." Accordingly, the Board's construction of "providing a unique identifier to the computer" in the '39 FWD does not support

[14] Here too, as in IPR2014-00052, the Board applied the broadest reasonable interpretation standard. Ex. 1037, 7.

Petitioner's argument that "unique identifier" in claim 1 of the '410 patent could encompass a user identifier. *See* Reply 3–4. Nevertheless, as discussed further below, the Specification and claim language sufficiently support Petitioner's position.

First, looking at the instances of "unique identifier" recited in the claim, we note that there is no recitation of how the "computer" is identified, such that it precludes a user identifier from being used as a "unique identifier." Further, only the "information sent from the computer to the one or more servers" is required to be "uniquely" identified by the "unique identifier." Ex. 1001, 34:37–39. Thus, because the claim is silent in this regard, the "unique identifier" does not need to "uniquely" identify *the computer*. In other words, there is no requirement that when selecting advertising, the method does so on the basis of information associated with an identifier that, as an example, *identifies the computer, but not the user*.

Second, in context of the Specification, the scope of "unique identifier" properly may encompass a user identifier. For instance, the Specification describes targeting advertisements to be displayed at the user's computer, by tracking information via the user identifier. *Id.* at 20:12–18. In another instance, the Specification describes the key role of "user identification" in the process of selecting advertising for a particular user registered at a particular computer. *Id.* at 22:4–8. And from the following passage, it is clear that the user ID is not only associated with the computer (as discussed previously), but also identifies the installed copy of the software at the computer:

> The user ID that is stored along with the demographic data is used to anonymously identify the user for the purpose of demographically targeting advertising to that user. This can be

> accomplished by assigning the user ID to the particular copy of the client software application downloaded by the user. Alternatively, the user ID can be included in a cookie placed by server 22 on the user's computer 18 and this cookie can be accessed by server 22 each time computer usage information is sent to server 22 so that the ID can be associated with the computer usage information.

Id. at 22:43–52. The embodiment described above ensures that the user ID, which is part of the user login process, identifies the demographics of the particular user and permits the selected advertising to be displayed for that user, i.e., at the user computer. *Id.* at 22:52–61; *see also id.* at 23:14–19 (describing *providing an identification of the user to the server* using the login and password of the user "so that the user profile and user library may be accessed and incorporated into the graphical user interface provided by the client software application.").

We note, however, that the Specification describes other embodiments that distinguish between an identifier for a computer (or installation of the software application on a computer) and a user identifier, for example, as follows:

> The application declares itself a new installation of a client software application, and the server provides *an identifier for subsequent identifications* between the application and the server. *User identification* provides individual users with the ability to receive advertising banners that are specifically targeted to a specific user from among multiple users that may be registered at a particular computer or through a client software application . . . .

Id. at 22:1–8 (emphases added). The claim language requires that the selection of the advertisement is "based at least on information associated with the unique identifier identifying the computer." And though the Specification describes an "identifier" for client software identification,

distinct from the "user identification," we have no evidence that the Specification describes *selecting an advertisement* for a specific user on the basis of information associated with the "identifier" *for the client software*.

The issue was explored further during the oral argument, after Patent Owner argued that advertisement selected based on a user identifier, alone, would not be advertisement selected based on the information associated with the unique identifier that identifies the computer. *See* Tr. 62:20–63:10. Patent Owner explains that the Specification contemplates separate identifiers and the claimed "unique identifier" is the one that identifies the computer installation or "installation ID." *See id.* at 68:13–70:4; *but see id.* at 70:5–71:13 (PO discussing that Petitioner has not raised a written description (or "112" issue) regarding the selecting step and that instead, according to Patent Owner, Petitioner's contention is that the claim does not require a computer identifier). We are not persuaded by Patent Owner's arguments.

As stated above, although the Specification describes an installation identifier and a user identifier, the demographics associated with a particular user are identified with the user identifier, not the installation identifier. For instance, the Specification describes that the "user ID is stored along with the demographic data" and "is used to anonymously identify the user for the purpose of demographically targeting advertising to that user." Ex. 1001, 22:43–45. The Specification also describes an alternative embodiment in which the user ID is included in a cookie placed by the server on the user's computer so that when the server receives the usage information from the computer, "the ID can be associated with the computer usage information." *Id.* at 22:48–52. Each time the user logs in to the client software application,

the user ID that is associated with the user's login identifies "which demographics are associated with this particular user." *Id.* at 22:52–56. And in the situation when multiple users are registered to use the same client software application, the specific user ID associated with a particular user's login information permits "different demographically targeted advertising to be displayed for each user." *Id.* at 22:57–61. The embodiment described above, thus performs the selecting of demographic information for each user based on the user ID, not a computer installation identifier or a computer identifier. There is no reason to exclude such an embodiment from the claim scope. Therefore, it is reasonable to conclude that the claimed "unique identifier" may encompass a user identifier.

However, we agree with Patent Owner that the claimed "identifying a computer" must have meaning, and that we interpret the claim language in light of the entire Specification, not just one embodiment. That the Specification contemplates using a computer installation identifier for some purpose does not warrant, however, that the claims be viewed narrowly to require only a computer identifier.[15] The claim language of "identifying the computer" would also be satisfied with the "user identifier" embodiment when considering how that embodiment describes the role of the login information in the client software application. As described above, the login information of the user is associated with the user ID. Ex. 1001, 22:52–54.

[15] We note here that the client software application installation ID is used for version control and determining whether an upgrade is necessary. Ex. 1001, 26:36–42, 29:61–63 ("Registration allows for identification and maintenance of the specific installation by the computer from which the user is working."). We do not find (and neither party points to) a description of the installation ID being used in the process of selecting advertisement.

As pointed out by Patent Owner during oral argument, the client software maintains a list of users registered to use a particular installation of the relevant software. *See* Tr. 55:13–58:5; Ex. 1001, 27:64–28:1. Therefore, when a registered user logs in to the installation, a module recognizes that user from the list of registered users and the "module thus invokes the user profile for the particular, current user." Ex. 1001, 28:1–5.

Thus, the user identifier that is associated with that current user serves two purposes. First, the user identifier is the "unique identifier" that the computer will use to communicate computer usage information with the server, while that particular user is the "current user." *See id.* at 24:15–17 (describing what occurs after login such that the client software application checks for access to the server and an Internet connection to report "current computer usage information"); *see also id.* at 20:12–18 (stating that computer usage information "can be associated with the user's demographic information (by way of their unique ID) at the server and then used by advertisers to help them better understand the consuming public"). Second, the user identifier is what the system utilizes to select advertising for the particular user registered at a particular computer. *Id.* at 22:4–12. We understand from these descriptions and the descriptions at columns 21 and 22 of the '410 patent that the user identifier does not change when a user changes computers. Rather, if an existing user uses a different computer installation, the user profile,[16] which is transportable and saved in the server, can be accessed. *Id.* at 22:23–34, 28:21–26 (describing how after login, a

[16] According to the '410 patent, the server stores the user identity and demographic information as a user profile. Ex. 1001, 30:27–31.

user profile can be invoked when the individual user is identified), 30:34–37 (stating "and the server shall retrieve all of the user profile data from the server" when a user provides its information at a new computer); *see also id.* at 9:19–24 ("The user profile is accessed by client software application 10 using a unique identifier for the user which, as will be described below, can be obtained via a login onto software application 10 or via a network or operating system login on the client computer 40."). In none of these descriptions of the '410 patent system is the computer installation identifier or any other similar identifier used for selecting the information that the computer transmitted with the user identifier. Accordingly, no such other identifier is necessary to identify the computer.

Based on the above findings, we conclude that the '410 patent Specification describes that the user identifier, because it is used to uniquely identify the information transmitted from the user's computer while that user is logged in, is sufficient to identify the computer with which that information is associated. Therefore, the claimed selecting step being based on "information associated with a unique identifier identifying the computer" does not require a different or an additional identifier as argued by Patent Owner. Accordingly, we determine that the "unique identifier" phrases do not exclude the use of a user identifier that is used in selecting advertisement to be displayed on the computer and that is both "associated with" and "identif[ies] the computer."

C. GROUND 1 – ALLEGED OBVIOUSNESS OVER GUYOT AND APTE

1. *Overview of Guyot*

Guyot discloses a system and method for targeting and distributing advertisements over a distributed information network, such as the Internet.

Ex. 1041, 1:9–11. The distributed information network allows for information to be exchanged between a server and multiple subscriber systems. *Id.* at 3:13–16, 3:44–47. The advertisement targeting system is set forth in Figure 1 as follows:

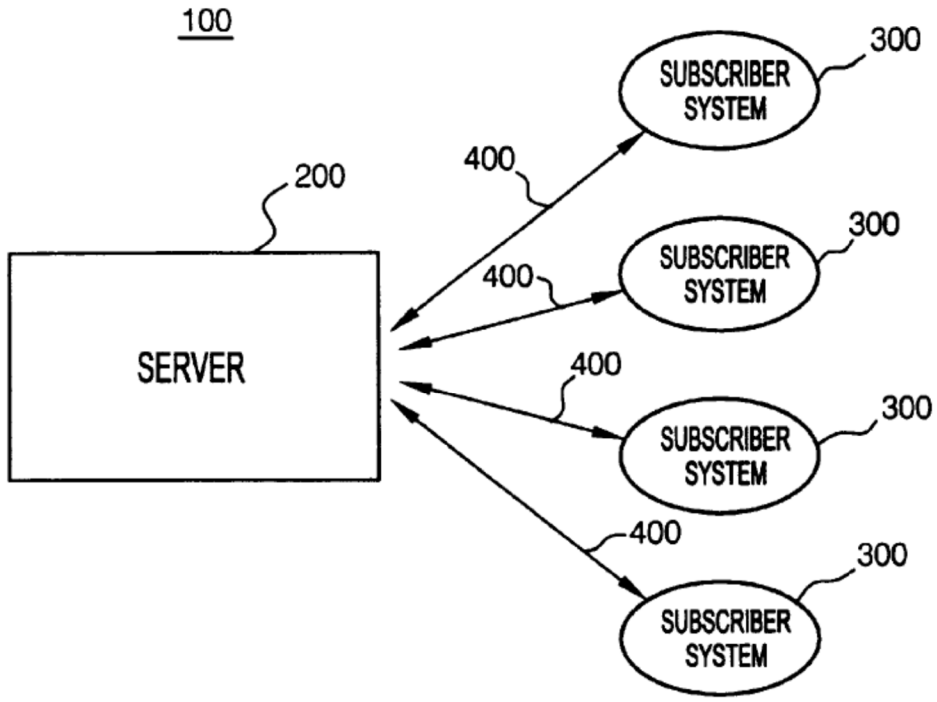

Fig. 1

The system includes server 200 and multiple subscriber systems 300. *Id.* at 3:15–16. Information is exchanged between server 200 and subscriber systems 300 over communication links 400. *Id.* at 3:17–18. Each subscriber system has a unique proprietary identifier. *Id.* at 3:21–22. Server 200 stores and manages an advertisement database. *Id.* at 3:24–25. Subscriber systems 300 periodically access server 200 to download advertisements that are targeted specifically to a subscriber based on a subscriber's personal profile stored on server 200. *Id.* at 3:26–29. Subscriber systems 300 then display the targeted advertisements. *Id.* at 3:29–30.

The advertisement database stores, for each subscriber, subscriber data that includes the subscriber's identification information, the subscriber's password, and the subscriber's personal profile. *Id.* at 3:55–60. The subscriber's personal profile is obtained by having the subscriber provide answers to a questionnaire. *Id.* at 3:60–65. The subscriber's personal profile is used to target specific advertisements to the subscriber. *Id.* at 3:60–61.

The subscriber system includes a memory, which stores a client application, and a processor which executes the client application. *Id.* at 3:30–36. The client application establishes a connection between the subscriber system and the server and the client application uploads subscriber statistics to the server, and downloads, if necessary, the latest version of the client application software from the server. *Id.* at 5:18–27. The subscriber statistics preferably include information related to the advertisements displayed on the subscriber's system and information on the Internet sites that the subscriber has accessed over a predetermined period of time. *Id.* at 4:15–24. This information is utilized to refine the subscriber's personal profile. *Id.*

2. *Overview of Apte*

Apte discloses a method and system for advertising and electronic commerce upon a web. Ex. 1008, 3:33–34. The method and system employ advertising software sent from a server over a network to a client computer in response to a user's request. *Id.* at 3:33–36. Apte's Figure 3 is reproduced below.

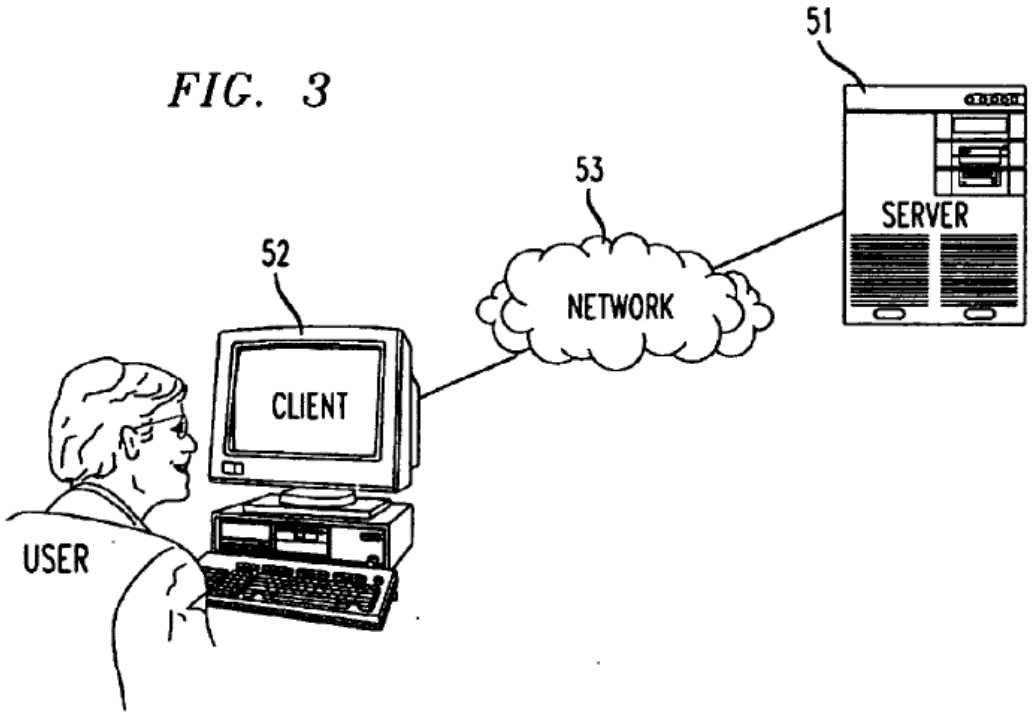

Figure 3 shows the components of one embodiment of Apte's system. *Id.* at 4:35–36, 5:34–38.

This embodiment includes server 51 and client computer 52. *Id.* at 5:4–5. Client computer 52 has a browser. *Id.* Network 53 interconnects server 51 and client computer 52. *Id.* at 5:4–7. Advertising software is downloaded from server 51 to client computer 52. *Id.* at 5:11–13. Apte's Figure 4 is reproduced below.

FIG. 4

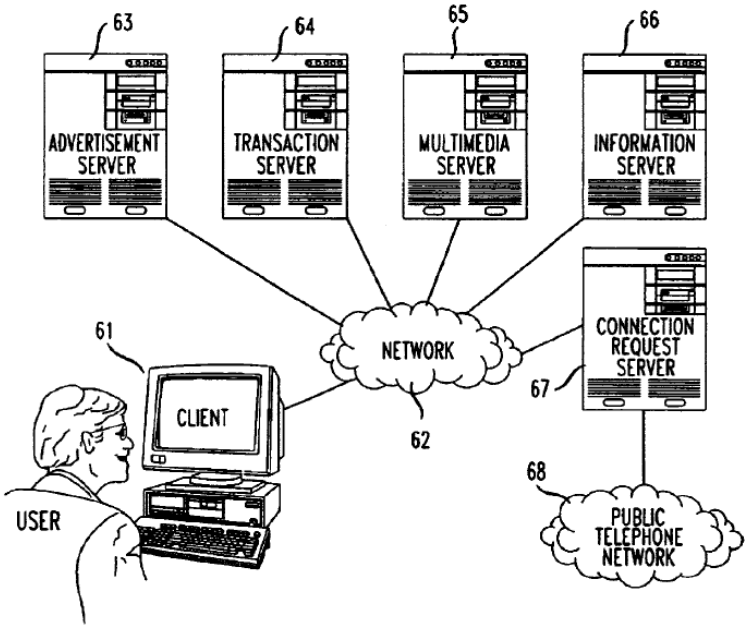

Figure 4 shows the components of another embodiment of Apte's system. *Id.* at 4:35–36, 5:34–38. In the embodiment of Figure 4,

> the functions of the advertising service provider in accordance with the present invention are divided among several servers interconnected with each other and the client computer 61 through a network 62. Advertisements are streamed to the client computer from an advertisement server 63. Secure purchase transactions are handled by a transaction server 64. Multimedia information is transmitted to the client computer from a multimedia server 65. Assistance is provided to users from an information server 66. Communications are established between a user and an advertiser using a connection request server 67, which is connected to a public telephone network 68.

Id. at 5:35–46. Apte's Figure 5 is reproduced below.

FIG. 5

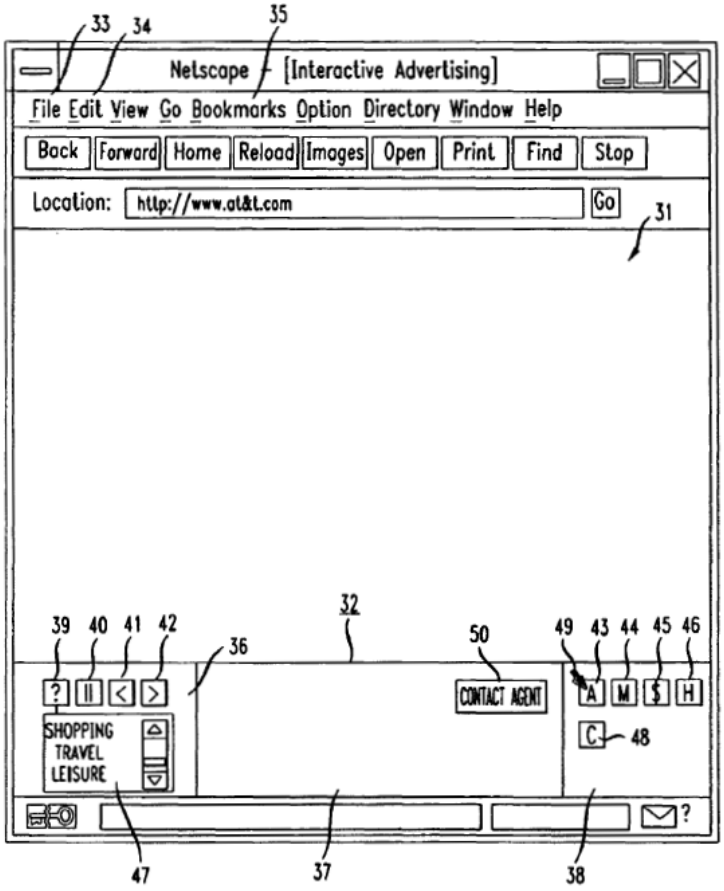

Figure 5 shows a display presented to the user by the advertising software acting in conjunction with the browser. *Id.* at 5:51–53.

The display includes browser area 31 and advertisement area 32. *Id.* at 5:54–55. The browser area retains essentially the same function as "the original browser (before the advertising software was downloaded and executed)." *Id.* at 5:60–65. "[T]he area for viewing pages 31 has been decreased to accommodate the advertiser area 32." *Id.* at 5:65–67.

Advertisements are shown in display area 37. *Id.* at 6:55. Apte describes providing advertisements related to the user's current viewing activity. *Id.* at 6:60–7:4. Apte explains that

> [t]he present invention advantageously provides the capability of selecting advertisements to show to the user based upon the

> content of the pages viewed by the user in the browser area. In one embodiment, if the user browses a page regarding the State of Hawaii, the server streams an advertisement regarding travel and leisure activities in Hawaii to the user's client computer. In another embodiment, if the user browses several pages regarding mutual funds, the server streams an advertisement regarding a mutual fund to the user's client computer.

Id. at 9:14–23. Apte adds that "[i]n one embodiment, the present invention carries out this context-sensitive advertising by conducting a keyword search of a page requested to be displayed on the client computer by the user." *Id.* at 9:24–27. Extracted keywords

> are compared to a database index, which cross-references keywords with topic names. Thus, in the present example, the keyword "surfing" matches topics "outdoor adventure" and "water sports." "Molokai" matches the topic "Hawaii."
>
> Each topic in the database is correlated with a series of URLs for advertisements that relate to the topic. Thus, the topic "Hawaii" corresponds advertisements for the "Airline Deals to Hawaii by TravelNow" and "Luau Hawaiian Hotels," which are now streamed to the user and displayed in the advertising area 37. In this way, the user's viewing habits are used to effectively target advertisements to the user that are pertinent to the user's interests.

Id. at 9:33–45. Apte also discloses targeting advertisements based on a user profile. *Id.* at 9:46–47.

3. *Discussion*

Before directly addressing the challenged claims of the '410 patent, the Petition mentions the Final Written Decision for the 39/738 IPR, as well as the Federal Circuit's affirmance of that decision. Specifically, the Petition notes that "[t]he Board previously found that Guyot anticipated claims 11-14 and 16-19 of the '314 Patent (Ex-1037), and the Federal Circuit affirmed (Ex-1039, *4-6)." Pet. 11. The Petition also states that, in

its analysis of the challenged claims of the '410 patent, "where a limitation is similar to one previously found present in Guyot, citations to those previous opinions are provided." *Id.* at 12–13.

Subsequently, the Petition sequentially addresses each of the limitations of claims 1–3, 5–8, 10–13, and 15–19, citing portions of Guyot and Apte that allegedly teach and/or render obvious the claim limitations. *Id.* at 13–36. When addressing most of the claim limitations, the Petition cites Guyot. *Id.*

When addressing certain claim limitations, the Petition cites Apte and Guyot. For example, addressing claim limitation 1.4, the Petition asserts that "[t]he combined teachings of Guyot and Apte render obvious this limitation." *Id.* at 16. The Petition asserts that "Apte discloses, or at least renders obvious, *determining that one or more keywords of a plurality of keywords are associated with a displayed webpage*." *Id.* at 17. Citing discussion in Apte of cross-referencing keywords and topic names, the Petition asserts that Apte "teaches *the plurality of keywords being stored in a memory associated with the one or more servers*." *Id.*

The Petition then asserts that it would have been obvious "to use Apte's keyword-based technique in Guyot." *Id.* at 18. The Petition argues that a person of ordinary skill in the art would have been motivated to combine Apte and Guyot because the combination "would have allowed faster and more-responsive ad targeting." *Id.*

The Petition also argues that "Guyot and Apte render obvious" claim limitation 1.5. *Id.* at 20. Here again, the Petition relies on Apte for its disclosure of advertising based on keywords. *Id.* at 24.

The Petition also relies on Apte in combination with Guyot when addressing certain limitations of the challenged dependent claims. For example, the Petition cites Apte when addressing claim 15's recitation that "the selected advertisement is displayed within the displayed webpage." Pet. 31. Asserting that Guyot renders obvious claim 15, the Petition adds that "Apte also discloses that the selected advertisement is *displayed within the displayed webpage* and, in combination with Guyot, renders obvious this claim." *Id.* The Petition also cites Apte when addressing claims 16 and 19. *Id.* at 32, 35–36.

With respect to Petitioner's assertions of obviousness over Guyot and Apte, the parties' disputes focus on whether Guyot teaches certain limitations of independent claim 1. We turn now to detailed discussions of those disputes.

a) Claim 1

(1) Claim Limitation 1.2.1

Claim limitation 1.2.1 recites "transferring a copy of software to a computer associated with the computer user." Ex. 1001, 34:29–30. We refer to this limitation as the "computer-to-computer user association" limitation. The Petition points out that Guyot's client application "runs on a computer associated with a computer user and Guyot's processor 'downloads . . . the latest version of the client application software from the server' either automatically or in response to a user's request." Pet. 14 (citing Ex. 1041, 5:18–23, 7:25–27, 8:28–50, Fig. 6A; Houh Decl. ¶¶ 104–106; Ex. 1034, 11–12).

The passages of Guyot relied upon by Petitioner describe the subscriber system's processor connecting to the server and performing three

main functions: refreshing the queue of ads to be displayed; uploading Subscriber Statistics; and downloading the latest version of the client software, if necessary. Ex. 1041, 5:18–23, 7:25–28. Another passage describes in particular the server executing a LOCSOFT routine, which identifies the version number and the location of the latest version of the client application software. *Id.* at 8:28–50. And in Figure 6A, Guyot describes that upon determining whether the installed client application software is not the latest version, the subscriber system downloads the latest version using the URL that the server provided. *Id.* at Fig. 6A; *see also id.* at 8:37–50 (explaining the download of software method). These passages demonstrate that Guyot's system performs the function of transferring a copy of software.

Now, we turn to whether the transfer is to a "computer associated with the computer user." On this point, Patent Owner asserts that Petitioner offers no explanation for Dr. Houh's opinion that the client application of Guyot runs on a computer associated with a computer user. PO Resp. 12 (citing Houh Decl. ¶ 105). Patent Owner also argues that none of the passages cited by Petitioner shows that computer is associated with a user. *Id.* at 12–13. Patent Owner posits that Petitioner's position relies on an inherency theory where the computer is necessarily associated with the user "(even if no computer or system actually associates a computer or identifier thereof with any computer user or identifier thereof)." *Id.* at 13. Patent Owner explains Dr. Houh's position of a single-user on a single-computer scenario: "that such association exists because at any point in time there may be a user operating a computer." *Id.* This position, according to Patent Owner, is philosophical rather than technical—"computer systems do not

operate on philosophical principals." *Id.* Mr. Zatkovich testifies in support stating that "[c]omputer systems operate on actual associations using actual constructs such as databases, tables and the like." Zatkovich Decl. ¶ 46 (cited in PO Resp. 13). Thus, according to Patent Owner, Petitioner's position ignores the requirement that the computer and computer user must be "associated" and urges, as we discussed above with regard to claim construction, that "associating requires a relationship between two pieces of information in a database or a table, or the like." PO Resp. 14 (citing Zatkovich Decl. ¶ 48; Ex. 1001, 27:64–28:1, 28:10-12, 28:21–22).

In Reply, Petitioner argues that Guyot repeatedly describes the computer as the "subscriber's computer" and that upon selecting the connection button, Guyot's subscriber "causes **his computer** to request a download." Reply 8 (citing Ex. 1041, Abstr., 5:18–23, 7:25–28, 8:28–50); Supp. Houh Decl. ¶¶ 38–45. According to Petitioner, the "computer-to-computer user association" limitation requires a connection, and the "subscriber's possession of a computer in Guyot meets the limitation." Reply 8.

In Sur-reply, Patent Owner reiterates that Guyot's "subscriber's computer" "merely reflects the fact that a subscriber may be at, or own, a computer." Sur-reply 8. In Patent Owner's view, the fact that an association could be made between "data identifying an individual and a computer" does not teach that the system performs the step of transferring the copy of software to a computer associated with a computer user. *Id.*

We are not persuaded by Patent Owner's arguments. We have considered the issue of whether the claim requires data linking in connection with claim construction above in Section II.B.1. We have determined that

the scope of the phrase "computer associated with the computer user" means "the computer is connected, joined together, or has a relationship with the computer user." And we agree with Petitioner that Guyot's subscriber computer (or subscriber subsystem) is associated with the computer user.

First, we find that Guyot's subscriber subsystem or subscriber computer is the computer that is associated with a computer user. Guyot plainly describes providing advertisements to the "client" application targeting a specific individual subscriber. Ex. 1041, 1:56–65. Upon the user manually connecting to the server, i.e., pressing the connect button, the manual connection is verified and the client computer verifies with the server the latest version for that specific computer. *Id.* at Fig. 6A (identifying step S530-"manual connection authorized?" and step S570-"need to download software?"); 5:18–25. According to Dr. Houh, and we agree, these disclosures show that the subscriber has used the subscriber system to select the connection button and that subscriber system is the computer with which the user is associated. Supp. Houh Decl. ¶ 40.

Second, we determine that the '410 patent is in accord with Dr. Houh's testimony and Petitioner's interpretation aligns with the meaning of the phrase as we have construed it. The subscriber subsystem in Guyot is expressly associated with a particular user. In connection with how Guyot updates Subscriber Statistics, Guyot makes clear that the server verifies whether the subscriber is associated with the subscriber system (the computer) to update the corresponding records in the server database. Ex. 1041, 9:66–10:3 (stating that upon receiving valid parameters for Subscriber Statistics from the subscriber system, "the control system [at the server] determines if *the subscriber associated with the subscriber*

system 300 and the advertisement information for the advertisements played on the subscriber system 300 are in the database 220 of the server 200" (emphasis added)). This informs us that there is an express joining, connection or relationship between the computer and the computer system in Guyot's system, and that the "association" is neither theoretical or circumstantial. Nevertheless, Guyot's subscriber at the time of using the computer is the current user and the only user to which the computer would or could be associated with, and therefore, Guyot's computer is associated with a computer user. As we stated in our claim construction, the relationship between these elements may be indirect. And we find a current user in Guyot, who would have her own profile and who would be presented with targeted advertisement to the specific computer being used at that time, reflects a connection or relationship between that user and the computer she is using. As the '410 patent observes, a *current user*, identified from a list of users for a particular computer, is the user whose profile is invoked during the session for which advertisement is selected. Ex. 1001, 27:64–28:5. It is, therefore, evident that the subscriber of Guyot, utilizing a computer with the client software installed therein, is associated (joined, connected, or has a relationship) with the current subscriber of that computer, while that subscriber is operating the computer and while the "personal profile" provided by that subscriber is used to provide advertisement. *See* Ex. 1041, 1:56–65, 3:23–29, 3:49–51, 6:43–46.

We recognize that Guyot's transfer of the client application is not performed based on who the computer user is. Guyot's server merely checks the version number of the application based on what the client reports to the server. *Id.* at Fig. 7; 9:38–55. Guyot's server merely returns a

URL of the latest version of the client application for the subscriber system to determine whether it should request that latest version. *Id.* at 8:30–38, 8:44–50. Nevertheless, the claim does not require that the transfer of the software copy be performed based on an association. Therefore, the difference of transfer of the software copy between Guyot and the '410 patent is not material. Guyot discloses what is claimed, a transfer of the copy of the client application to a computer associated with the client computer. As stated above, when the subscriber presses the connect button on the application, the client software issues a LOCSOFT command that checks for the latest version of the client application as compared to the one currently installed in that subscriber's computer. Because the subscriber, the one who presses the connect button, is the current user of the computer and the only computer to which that subscriber at that time is connected to, Guyot's subscriber system is the computer that is associated with the computer user.

Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that Guyot discloses the "computer-to-computer user association" limitation.

(2) Claim Limitation 1.3

Claim limitation 1.3 recites "determining a unique identifier associated with the computer, wherein the identifier uniquely identifies information sent from the computer to one or more servers." Ex. 1001, 34:36–39. We refer to this limitation as the "determining a unique identifier" limitation.

Petitioner proposes two distinct "identifiers" in Guyot as disclosing this "determining a unique identifier" limitation. First, Petitioner points to

Guyot's "unique proprietary identifier." Pet. 15; Reply 18 (stating that "Petitioner also relied on Guyot's 'unique proprietary identifier' as disclosing this limitation as an alternative disclosure," referring to "unique identifier identifying the computer" (limitation 1.5) and not the "determining a unique identifier" limitation discussed as limitation 1.3). And second, Petitioner points to "Subscriber Data" and "Subscriber Statistics" information. Pet. 15–16; Reply 8–13.

We address each of these contentions in turn.

(a) Guyot's Unique Proprietary Identifier

In its Reply, Petitioner argues that Guyot's unique proprietary identifier is an alternative contention for the limitation that requires the unique identifier identifying the computer. Reply 18. Petitioner contends that Patent Owner is estopped from arguing that the unique proprietary identifier of Guyot does not identify a copy of software from among other copies of software. *Id.* (relying on the '39 FWD). During oral argument, Petitioner reiterated that it maintains its position that Guyot's unique proprietary identifier is a valid disclosure and that in "the previous proceeding the unique proprietary identifier of Guyot was used to uniquely identify a software installation." Tr. 40:16–41:25. And so Petitioner concludes that Guyot's "unique proprietary identifier and the subscriber data work together to uniquely identify the computer for purposes of targeted advertising and for Guyot's purposes." *Id.* at 41:9–25; 42:12–19.

We are not persuaded by Petitioner's argument. Guyot is silent and Dr. Houh does not opine on how Guyot's unique proprietary identifier uniquely identifies information sent from the computer to the one or more servers, and that subsequently that information is used for selecting

advertisement. Dec. on Inst. 16–17. We find that the Petition does not propose a "combination" of unique identifiers that together meet the unique identifier recited in the claim. To the extent Petitioner attempts to argue in the Petition that *a combination* of the "unique proprietary identifier" and some other information, such as the "Subscriber Data" of Guyot discloses the limitation, such a contention is not explained in the Petition, and, at any event, Guyot is silent concerning the role, if any, of the "unique proprietary identifier" in the disclosed method of advertisement selection. *See* Pet. 16 (stating that Guyot discloses the unique identifier associated with the computer and following that statement with a parenthetical that reads as follows "('unique proprietary identifier' and/or 'Subscriber Data')."). The argument in the Reply that Petitioner alluded to during oral argument focuses on how the unique proprietary identifier of Guyot identifies the computer. Reply 18. The argument in the Reply does not address the lack of factual support in Guyot because there is no disclosure that the unique proprietary identifier, in addition to identifying the computer, is also the unique identifier that uniquely identifies information sent from the computer to the one or more servers in accordance with the "determining a unique identifier" limitation (limitation 1.3).

Petitioner's attempt to combine the role of Guyot's unique proprietary identifier with other data as identifying anything more than the computer on which the client software is installed does not have support in the record. *See* PO Resp. 35. Guyot's sole disclosure of this unique proprietary identifier is at column 3, lines 18–22. There is no discussion of this identifier anywhere else and Petitioner has not pointed to any evidence that such an identifier is disclosed to perform any other function as alleged at

oral argument (notwithstanding that it was a belated contention not presented in the Petition).

Finally, Petitioner's combination of Guyot's "unique proprietary identifier" and Subscriber Data was not presented in the Petition and to the extent it was vaguely alluded to, the extent of that combination was not explained. The claim requires determining the "unique identifier" associated with the computer, which Guyot may be able to perform with the "unique proprietary identifier." But the claim also requires that "the identifier"—not some other piece of information separate and distinct from that identifier—identify information sent from the computer to the one or more servers. The Petition, for the "determining a unique identifier" limitation (limitation 1.3), alludes to Guyot's "unique proprietary identifier" identifying the computer, and without argument or explanation concludes that it is "used by the system in selecting an appropriate advertisement to be displayed on the specific computer associated with the user of that computer, as described further in limitation [1.5]." Pet. 15. The supporting testimony from Dr. Houh is verbatim what is asserted in the Petition and offers no explanation for such a conclusion and no support in Guyot for those assertions. Accordingly, we give Dr. Houh's testimony in this regard no weight. Reviewing the further explanations for "limitation [1.5]," Petitioner again presents the argument that Guyot's "unique proprietary identifier" is assigned and thus identifies the computer itself. *Id.* at 21 (citing Ex. 1041, 3:20–21). But in discussing advertisement selection and the information on which that selection is based, Petitioner relies on the Subscriber Data and Subscriber Statistics without explaining how or why Guyot's *unique proprietary identifier* plays a role in the information for selecting advertisement, if at all. *Id.* at 21–22 (stating

that "Guyot *further* meets this limitation through the computer's association with the computer user" and explaining the Subscriber Data and Subscriber Statistics for the user profile (emphasis added)). In fact, we find that Petitioner's advertisement selection explanation is at odds with the alleged "combination" position because it argues that the computer does not need to be uniquely identified, and that even if that were the case, the single-user scenario accomplishes such a unique identification through the Subscriber Data—again not relying on the unique proprietary identifier at all for such a function, even though Petitioner alleges that Guyot identifies the computer uniquely through the unique proprietary identifier. *Id.* at 23 (stating that "the Subscriber Data of Guyot would still uniquely identify the particular computer a user is using at any particular time.").

Accordingly, we determine that Petitioner failed to demonstrate by a preponderance of the evidence that Guyot's unique proprietary identifier alone or in combination with any other information is the recited "unique identifier" discloses the "determining a unique identifier" limitation.

(b) Guyot's Subscriber Data

Petitioner argues that Guyot's server maintains a database that contains "Subscriber Data" that includes a "subscriber's identification information, a password assigned to the subscriber, and a personal profile of the subscriber." Pet. 15 (citing Ex. 1041, 3:55–65, Fig. 3). Petitioner also points out that the server maintains "Subscriber Statistics" that include a "subscriber's usage information" and that the "server updates this database information based on information it receives from the user computer, including updates to the personal profile provided by the user, and further defines the subscriber's personal profile." *Id.* at 15–16 (citing Ex. 1041,

1:60–65, 2:22–28, 3:23–30, 3:49–54, 4:21–23, 5:18–27, 6:31–39; Houh Decl. ¶¶ 115–116).

In our Decision on Institution, we determined that Petitioner's assertions and evidence relying on Subscriber Data as evidence of the unique identifier were sufficient for institution. Dec. on Inst. 21–22. Patent Owner challenges the Subscriber Data contention on the basis that it is neither "associated with the computer" nor does it identify the computer, as required by the claims. PO Resp. 18–19. According to Patent Owner, Guyot's Subscriber Data only identifies the user—without disclosing the association with or the identification of the computer that is required. *Id.* at 19 (citing Ex. 1041, 3:57–65; Zatkovich Decl. ¶¶ 57–59). Further, Patent Owner contends that Dr. Houh's explanation does not withstand scrutiny because it attempts to turn the Guyot subscriber identification information into the unique identifier "identifying the computer" without support. *Id.* at 19–20 (citing Zatkovich Decl. ¶¶ 60–61; Houh Decl. ¶ 116). According to Patent Owner, the claim spells out a distinction between the computer user and the computer, and Petitioner's position conflates the two and is inconsistent with the '410 patent Specification. *Id.* at 23–24.

In Reply, Petitioner explains how the single-user/single-computer scenario of Guyot discloses this limitation. Reply 11–13. For instance, Petitioner argues that "Guyot's advertisement database stores Subscriber Data for each subscriber, including unique identification information (unique identifier)." *Id.* at 12. For example, if a subscriber is assigned a unique identifier of "1234" (stored in the Subscriber Data) and that subscriber uses her subscriber system to visiting a website, Guyot records that event in the database that maps the "1234" subscriber to the particular website. *Id.*

Thus, Guyot discloses a unique identifier (subscriber "1234") that is associated with the computer, and that identifier also uniquely identifies the information sent from the computer (visit to the website) to the one or more servers. *Id.* (citing Supp. Houh Decl. ¶¶ 46–63).

Patent Owner characterizes the above explanation as a "fanciful description" of Guyot. Sur-reply 13–14. More particularly, Patent Owner contends that the database of the example connects two pieces of information: the "1234" subscriber identifier, and the website visited. *Id.* Neither of these, according to Patent Owner, is a string of text used as a label for a computer, i.e. no identifier of a computer is involved. *Id.* at 13–14.

We are not persuaded by Patent Owner's arguments. First, we have clarified above the claim construction of the phrases reciting the "unique identifier." *See* Section II.B.3. We stated that the "unique identifier" phrases do not exclude a user identifier that is used in selecting advertisement to be displayed on the computer. *Id.* And we also concluded that the '410 patent Specification describes that the user identifier, because it is used to uniquely identify the information transmitted from the user's computer while that user is logged in, is sufficient to identify the computer with which that information is associated. *Id.* Thus, we do not agree with Patent Owner that the user identifier alone cannot be the "unique identifier that is associated with the computer" and that also "uniquely identifies information sent from the computer to the one or more servers," as recited by claim 1.

Second, the majority of Patent Owner's arguments for the "determining a unique identifier" limitation stem from the interaction between this limitation and limitation 1.5—the "selecting" step. In the

selecting step (discussed in further detail below), the claim language requires that the "unique identifier identify[] the computer." Patent Owner's arguments focus on that identification as being a direct identification, reading into the claim some requirement that the identifier itself constitute a string of text labeling the recited computer. But the claim does not require such a direct identification. As stated in our claim construction analysis for the "unique identifier" phrases, the Specification describes that the "user ID is stored along with the demographic data" and "is used to anonymously identify the user for the purpose of demographically targeting advertising to that user." Ex. 1001, 22:43–45. This description and the claim language inform us that the demographic data for each user is identifiable based on the user ID, not a computer installation identifier or any other computer labels. Thus, it is insufficient for Patent Owner to argue that the subscriber identifier in Guyot (stored in the Subscriber Data) may identify a subscriber but cannot be the "unique identifier" because it is not a string of text that identifies the computer itself.

Third, we have already discussed above that Guyot's subscriber and subscriber system are associated. *See supra* Section II.C.3.a). Dr. Houh explains, and we agree, that with respect to the single-user/single-computer scenario, the "subscriber's identification information" (stored in the Subscriber Data) is the user identifier and that because there is a subscriber system associated with the subscriber, the "subscriber identification information" is associated with the computer through its association with the subscriber. Supp. Houh Decl. ¶ 48.

Furthermore, we have already determined Guyot updates Subscriber Statistics and verifies whether the subscriber is associated with the

subscriber system (the computer) to update the corresponding records in the server database. Ex. 1041, 9:66–10:3 (stating that upon receiving valid parameters for Subscriber Statistics from the subscriber system, "the control system [at the server] determines if *the subscriber associated with the subscriber system* 300 and the advertisement information for the advertisements played on the subscriber system 300 are in the database 220 of the server 200" (emphasis added)).

Dr. Houh further testifies, and we agree, that for Guyot to work as described—Subscriber Statistics updated from the subscriber system to the server—Guyot's information must be uniquely identifiable when it is sent to the server. Houh Decl. ¶ 115. According to Dr. Houh, and we agree, Guyot's server uses the incoming Subscriber Statistics (websites visited, for example) to update the user's personal profile that is stored in the Subscriber Data, and therefore the computer usage or subscriber statistics are indexed to the subscriber identifier. *Id.* Thus, Guyot describes associating the incoming Subscriber Statistics with a particular personal identifier and/or password and updating the subscriber's profile (stored in the Subscriber Data) accordingly. *Id.* ¶¶ 115–116. Dr. Houh further explains additional operation of Guyot that evidences how the advertisements are uniquely identifiable by the subscriber identification information (unique identifier). Supp. Houh Decl. ¶ 49. In that explanation, Dr. Houh makes the point, and we agree, that each time subscriber system 300 connects to the server to download advertisements, the server retrieves those ads that are "specifically targeted to the subscriber" and, as such, the "subscriber identification information" (unique identifier) is what identifies those advertisements. *Id.* Thus, the subscriber system is associated with the unique identifier—without

which the subscriber system would not be able to download the advertisements selected for its subscriber. *Id.* We also agree with Dr. Houh that for Guyot to update the subscriber profile for a particular subscriber, Guyot's server must associate the incoming Subscriber Statistics with the particular "subscriber identification information" in the Subscriber Data. *Id.* ¶ 50.

Consequently, we determine that Petitioner has shown by a preponderance of the evidence that Guyot discloses the "determining a unique identifier" limitation of claim 1. Guyot's database 220 stores the "subscriber identification information" in Subscriber Data, which includes the personal profile of the subscriber, and also stores Subscriber Statistics. Pet. 15–16; Ex. 1041, 3:55–61. When Guyot's subscriber system (computer) connects to the server (such as by the subscriber selecting the connection button, Ex. 1041, 8:21–23)), Guyot determines the "subscriber identification information" because the subscriber station updates the server with information on which advertisements have been seen by that specific subscriber and requests advertisements for download at that computer (*id.* at 8:51–9:11). The software routine that updates the Subscriber Statistics verifies in the database the association between the subscriber and the subscriber system and the advertisement information for the ads played. *Id.* at 9:66–10:3, Fig. 8 (step S603). The Subscriber Statistics include information on Internet sites that the subscriber has accessed. *Id.* at 4:18–23. The server utilizes this information to further define the subscriber's personal profile in the Subscriber Data. *Id.* at 4:21–23. Thus, Dr. Houh's testimony that Guyot's server determines the "subscriber identification information" in the Subscriber Data and that such an identifier

is a "unique identifier" is supported by Guyot. Supp. Houh Decl. ¶ 49. The "subscriber identification information" may identify the subscriber, but is also associated with the subscriber computer as indicated by the server operation that checks the integrity of the Subscriber Statistics and updates the particular user's profile accordingly. Dr. Houh's testimony is also supported by Guyot's disclosure that the server updates the profile in the Subscriber Data with the received information on Internet websites visited. Such an update operation is evidence that Guyot's server identifies the information sent from the subscriber system "uniquely" and links it to the "subscriber identifier information" in the profile. Thus, Guyot discloses the recited "unique identifier."

Furthermore, Dr. Houh provides a sufficiently thorough and reasonable explanation of how the subscriber ID of Guyot ("unique identifier") maps to the information on websites visited. Supp. Houh Decl. ¶¶ 59–61. Describing Guyot's database operation such that the subscriber identifier identifies the website visited information explains that, in a single-user on a single computer scenario, the subscriber identifier is associated with the computer and the subscriber identifier also uniquely identifies the website-visited information. *Id.* We find this testimony persuasive and give it credit over the testimony of Mr. Zatkovich. The testimony of Mr. Zatkovich on this point characterizes Subscriber Data as only an identifier of a subscriber, because the computer and the subscriber are separate entities under the '410 patent. Zatkovich Decl. ¶¶ 59–62. We have rejected this characterization in our discussion of the claim construction, because the '410 patent Specification discloses, among other embodiments, that the userID identifies the user, the demographically targeted advertisement for

the user, and the computer. Ex. 1001, 22:43–48; *see supra* Section II.B.3; *see also* Supp. Houh Decl. ¶¶ 54–56 (testifying that the '410 patent also describes the situation in which a user has only one computer and that there is no requirement in the claims (nor does Guyot speak to) the situation in which a computer must support multiple user accounts). In other words, the claim language and the Specification of the '410 patent do not support the contention that the user ID and the computer must each be separately identifiable, but somehow linked. In fact, Mr. Zatkovich testified to the contrary in his deposition. Ex. 1098, 68:9–24 (stating, with regard to a string of "1234" being a computer identifier, that the "same value of an identifier could be used for user ID and a computer ID, but they would have different meanings."). Furthermore, Patent Owner's arguments rebutting Dr. Houh's explanation of Guyot's database focus on another notion we have rejected, that the linking in the database must be some direct link between the subscriber identifier and a computer. *See* Sur-reply 13–14.

In sum, having weighed the arguments of Patent Owner and the evidence presented in support and in opposition, we determine that Petitioner has shown by a preponderance of the evidence that Guyot discloses the "determining a unique identifier" limitation, as recited in claim 1.

(3) Claim Limitation 1.5

Claim limitation 1.5 recites "selecting an advertisement to be displayed on the computer, the selection based at least on the one or more keywords together with information associated with the unique identifier identifying the computer." Ex. 1001, 34:44–47. We refer to this as the "selecting an advertisement" limitation. Below, we focus on the beginning

language of this limitation, namely, "selecting an advertisement to be displayed on the computer, the selection based at least on the one or more keywords together with information associated with the unique identifier."

Regarding the "keywords" portion of the limitation, Petitioner relies on Apte in combination with Guyot. As explained above in Section II.C.3, Petitioner relies on Apte for its disclosure of advertising based on keywords. Pet. 24. Asserting that "[a person of ordinary skill in the art] would have found it obvious to use Apte's keyword-based technique in Guyot" (*id.* at 18), Petitioner explains that "[a person of ordinary skill in the art] would have recognized that it was known to make an advertisement decision based both on keywords (as taught by Apte) and demographic information" (*id.* at 24). Patent Owner does not dispute Petitioner's position that it would have been obvious in view of Guyot and Apte to select an advertisement based partially on keywords, as required by the "selecting an advertisement" limitation. *See generally* PO Resp. We find that a preponderance of evidence supports Petitioner's position that it would have been obvious in view of Guyot and Apte to use one or more keywords in the manner required in the "selecting an advertisement" limitation.

Regarding the "unique identifier" recited in the "selecting an advertisement" limitation, we have previewed above that "the unique identifier identifying the computer" is related to the previously discussed "determining a unique identifier" limitation. In particular, we discussed that Guyot's Subscriber Data, specifically the "subscriber's identification information" discloses the "unique identifier associated with the computer." Now we address, whether that "subscriber's identification information" is a

"unique identifier identifying the computer" under the "selecting an advertisement" limitation. We determine that it is.

First, Petitioner argues that Guyot describes how the computer operates when operated by the same user throughout, i.e., the single-user/single computer scenario. Pet. 22–23. In this scenario, each computer is being used by only a single user—it's not a scenario where a computer has multiple user's accounts, nor a scenario where the same user interacts with the Guyot system using multiple computers. *Id.* at 22–23 (citing Ex. 1041, 3:18–22; Houh Decl. ¶¶ 135–136). Dr. Houh testifies, and we agree, that in "the single-user/single-computer configuration the Subscriber Data will necessarily identify only one computer—the computer that is being used by that one user." Houh Decl. ¶ 136. But even in other configurations, where a user (or subscriber) would interact with multiple computers, Dr. Houh opines, Guyot's Subscriber Data would still identify the particular computer a user is using at any particular time because the information being sent by any individual user will include that user's subscriber identification, password, and personal profile—each of which is uniquely linked to the computer at the time it is being used by the user. *Id.* We agree.

We have already explained above with respect to the "determining a unique identifier" limitation that, in the process of updating the Subscriber Statistics, the subscriber system 300 sends to the server the information concerning the websites visited. Ex. 1041, 3:23–28, 4:15–23, 5:18–23. After validating the Subscriber Statistics parameters, the server determines if "the subscriber associated with the subscriber system 300 and the advertisement information for the advertisements played on the subscriber system 300 are in the database 220 of the server 200." *Id.* at 9:66–10:3. The

server performs this updating process, preferably for a number of different subscriber systems 300. *Id.* at 10:11–14. The profile of the user is updated based on the updated Subscriber Statistics, and the advertisers get the updated profiles of those users, including the updated Subscriber Statistics. *Id.* at 4:15–23, 10:17–22, Fig. 6(B) (steps S590, S600, and S608, describing the TAKESTAT command and routine). Thus, Dr. Houh's testimony that the Guyot's Subscriber Data necessarily identifies only one computer has merit because in order for Guyot to be able to update the personal profile of each user, based on the Subscriber Statistics, Guyot's server must understand that the subscriber identified through the user profile is operating the computer that visited the websites identified in the Subscriber Statistics. *See* Houh Decl. ¶¶ 80–81 (explaining the role of the user profile in targeted advertisement and how it is directed to the subscriber system). Further, as Petitioner points out, Guyot plainly states that the server "provides advertisements to the 'client' application that are targeted to each individual subscriber, based on a personal provided by that subscriber." Ex. 1041, 1:60–65; Pet. 20–22 (citing Ex. 1041, 1:60–65, 3:23–30, 3:49–54, 4:15–23, Fig. 3; Houh Decl. ¶¶ 131–132). And, as Dr. Houh testifies, the "client application will download targeted advertising selected from the server whenever it connects to the server." Houh Decl. ¶ 132 (citing Ex. 1041, 1:60–65, 2:29–35, 3:23–30, 5:18–27). Thus, because Guyot transfers the selected advertisement to the client application with which the profile is associated, the client application, which is a proxy for the computer, much like in the '410 patent, is identified through the profile, i.e., through the subscriber identification information or "unique identifier." *See* Supp. Houh Decl. ¶ 73 ("The only way this targeting works, and that targeted advertising

may be sent to the subscriber system and displayed on the subscriber system, is to uniquely identify the subscriber's system in some way. Guyot does this using the subscriber's identification information."); Reply 14–16. Accordingly, we agree and are persuaded by Petitioner's evidence that Guyot discloses the "unique identifier" that identifies the computer in the "selecting an advertisement" limitation.

Patent Owner argues otherwise, and we explain below that we are not persuaded by these arguments for the same reasons as stated above. In addition to the arguments already discussed in the claim construction analysis, and limitations addressing the "computer" and how that "computer" is associated with a computer user or identified by a "unique identifier," Patent Owner argues that the '410 patent emphasizes the benefits of using particular identifiers for particular purposes. PO Resp. 22–23 (arguing that the registration process described in the '410 patent signals that a user identifier alone cannot identify the computer and citing Zatkovich Decl. ¶¶ 64–66). This argument is not persuasive as we have determined that the user identifier may indirectly identify the computer (*supra* Section II.B.2–3). Also, Patent Owner presents as an example the disclosure in the '410 patent that "the user profile associated with each user can be accessed from different installations, irrespective of the computer or operating system that the user employs." PO Resp. 23 (citing Ex. 1001, 22:23–25). This example, however, does not show that the '410 patent envisions a user identifier for only identifying the user, and not identifying the computer. Rather, as discussed earlier in our decision in connection with claim construction analysis, the user profile in the '410 patent evidences the mechanism by which the user identifier identifies the information associated

with the unique identifier—there is no discussion in such an embodiment of the computer installation or computer ID being used in selecting the user profile when a user migrates from one computer to another. *See* Supp. Houh Decl. ¶ 26.

Also, arguing that a single-user/single-computer configuration would not be of interest to advertisers is to no avail because it finds no support in the claim language. PO Resp. 22. The claim language states that advertisement is selected based on the information associated with the unique identifier identifying the computer. Whether an advertiser may choose to target a particular computer based on location of that computer or an entire household based on that particular computer does not address the claim requirement that the advertisement is based on the "information" (i.e., the demographic information sent from the computer to the server)—not on the location of the computer, or to more than one user per computer, such as a household using the same computer. In any event, we have determined in connection with claim construction that the claims do not preclude the configuration of a single user operating a single computer. *See supra* Section II.B.1.

Further, we are not persuaded by Patent Owner's argument that Dr. Houh's opinion is discredited because he erroneously believes that the Specification only discloses user identifiers. PO Resp. 24–29 (citing various portions of the deposition transcript where Dr. Houh testified about the user identifier). We are not persuaded by this argument. Dr. Houh's deposition testimony is consistent with the position in the Petition that the '410 patent Specification describes assigning a unique ID to the user and that the patent is silent as to how that unique ID is used to identify the computer

independently of or separately from of the user. Ex. 2006, 68–72. This testimony is not inconsistent with the embodiments we have analyzed above with respect to claim construction, in which the unique user ID identifies the demographic information as well as the computer. Ex. 1001, 22:43–52. Furthermore, in stating that the '410 patent discuses only identifying users, and not identifying computers (Supp. Houh Decl. ¶ 79) we take that to mean that in the selecting of advertisement and delivering that advertisement, the '410 patent is silent as to what role, if any, the computer installation or computer identifier plays. In the embodiment described above, the '410 patent discloses selecting the advertisement based on the demographic information which is identifiable via the user identifier, and not by any computer installation ID or computer identifier.

Finally, Patent Owner argues that Guyot does not teach "only a single user per computer scenario." PO Resp. 30–33. This argument is not persuasive. Guyot doesn't describe a mere possibility that a single user could use a single computer, as Patent Owner argues. Guyot expressly discloses associating a subscriber with a subscriber system 300 (Ex. 1041, 9:66–10:3). That is, Guyot describes a one-to-one correspondence between a computer and a computer user. As Dr. Houh opines, and we agree, the user profile of Guyot is built from the browsing activity that occurred on the subscriber system by a particular subscriber, and the advertisements are directed to that same subscriber system. Supp. Houh Decl. ¶¶ 74–76. This is not mere speculation—Guyot plainly shows that when focusing on a particular computer that has a single user authorized to use it, the advertisement selected for that single user will be delivered to that particular

computer and, therefore, the user identifier from the profile also identifies the computer to which to send the advertisement.

In sum, we have reviewed Patent Owner's arguments in opposition to Petitioner's contention that Guyot does not disclose a "unique identifier" that identifies the computer as recited in the "selecting an advertisement" limitation.

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Turning to the "selecting an advertisement . . . based at least on . . . information associated with the unique identifier" language, the Petition points to Guyot's disclosure of selecting advertisements based on a subscriber's personal profile contained in the "Subscriber Data" and associated usage information contained in the "Subscriber Statistics." Pet. 20–21 (citing Ex. 1041, 1:60–65, 3:23–30, 3:49–54, 4:15–23, Fig. 3; Houh Decl. ¶¶ 131–132). Patent Owner does not present specific argument showing that Guyot fails to disclose "selecting an advertisement . . . based at least on . . . information associated with the unique identifier"; rather, Patent Owner's pertinent argument for the "selecting an advertisement" limitation focuses on the issue of whether Guyot's Subscriber Data discloses the claimed "unique identifier," which we determined above. *See* PO Resp. 18–35; Sur-reply 10–15.

We agree with Petitioner that Guyot discloses "selecting an advertisement . . . based at least on . . . information associated with the unique identifier" by describing the interplay of the Subscriber Statistics and Subscriber Data that allows Guyot's system to "provide[] advertisements to

the 'client' application that are targeted to each individual subscriber, based on a personal profile provided by that subscriber." Ex. 1041, 1:60–65; *see also id.* at 3:55–4:23. In particular, Guyot describes that "the Subscriber Statistics preferably include information on Internet sites that the subscriber has accessed over a predetermined period of time," and that "this information is transferred to the server 200" and used "to further define the subscriber's personal profile." *Id.* at 4:18–23. Guyot explains that the subscriber's personal profile is the basis for "download[ing] advertisements that are specifically targeted to the subscriber." *Id.* at 3:25–28. Accordingly, the Internet site access information in the Subscriber Statistics that in part defines the personal profile is information upon which an advertisement selection is based, as in claim 1. Further, as discussed above with respect to the "determining a unique identifier" limitation, we agree with Dr. Houh that Guyot's server associates the incoming Subscriber Statistics with the particular "subscriber identification information"—i.e., the "unique identifier"—in the Subscriber Data. *See* Supp. Houh Decl. ¶ 50. Therefore, the information in Guyot's Subscriber Statistics that is used for targeting advertisements to a particular subscriber is "associated with the unique identifier," as recited in claim 1.

In view of the foregoing, we find that Petitioner has demonstrated by a preponderance of the evidence that Guyot teaches the portions of the "selecting an advertisement" limitation related to the "unique identifier." Additionally, as noted above, we find that Petitioner has demonstrated by a preponderance of the evidence that it would have been obvious in view of Guyot and Apte to use "keywords" in the manner required by the "selecting an advertisement" limitation. In sum, a preponderance of the evidence

supports Petitioner's position that "Guyot and Apte render obvious" the "selecting an advertisement" limitation. Pet. 20.

(4) Conclusion as to Claim 1

Having reviewed all of the parties' arguments and evidence regarding Petitioner's assertion that claim 1 would have been obvious over Guyot and Apte, we determine Petitioner has shown by a preponderance of the evidence that claim 1 would have been obvious over Guyot and Apte.

b) Claims 2, 3, 5–8, 10–13, and 15–19

Patent Owner does not argue patentability of dependent claims 2, 3, 5–8, 10–13, and 15–19 separately from its arguments regarding the challenge of independent claim 1 as allegedly obvious over Guyot and Apte. *See generally* PO Resp. Having carefully reviewed the arguments and evidence of record, we determine Petitioner has demonstrated by a preponderance of the evidence that claims 2, 3, 5–8, 10–13, and 15–19 would have been obvious over Guyot and Apte. *E.g.*, Pet. 26–36.

D. GROUND 3 – ALLEGED OBVIOUSNESS OVER GUYOT, APTE, AND LINSK

Claim 4 depends indirectly from claim 1. Ex. 1001, 34:52, 34:58. Petitioner's challenge of dependent claim 4 as allegedly obvious over Guyot, Apte, and Linsk cites Linsk as teaching the limitation added by dependent claim 4. Pet. 62. Patent Owner does not argue patentability of dependent claim 4 separately from its arguments regarding the challenge of independent claim 1 as allegedly obvious over Guyot and Apte. *See generally* PO Resp. Having carefully reviewed the arguments and evidence of record, we determine Petitioner has demonstrated by a preponderance of the evidence that dependent claim 4 would have been obvious over Guyot, Apte, and Linsk. *E.g.*, Pet. 62–63.

E. GROUND 5 – ALLEGED OBVIOUSNESS OVER GUYOT, APTE, AND ROBINSON

Claim 9 depends from claim 1. Ex. 1001, 35:4. Petitioner's challenge of dependent claim 9 as allegedly obvious over Guyot, Apte, and Robinson cites Robinson as teaching the limitation added by dependent claim 9. Pet. 63–65. Patent Owner does not argue patentability of dependent claim 9 separately from its arguments regarding the challenge of independent claim 1 as allegedly obvious over Guyot and Apte. *See generally* PO Resp. Having carefully reviewed the parties' arguments and evidence, we determine Petitioner has demonstrated by a preponderance of the evidence that dependent claim 9 was obvious over Guyot, Apte, and Robinson. *E.g.*, Pet. 63–65.

F. GROUND 7 – ALLEGED OBVIOUSNESS OVER GUYOT, APTE, AND RFC1635

Claim 14 depends from claim 1. Ex. 1001, 35:25. Petitioner's challenge of dependent claim 14 as allegedly obvious over Guyot, Apte, and RFC1635 cites RFC1635 as teaching limitations added by dependent claim 14. Pet. 68–72. Patent Owner does not argue patentability of dependent claim 14 separately from its arguments regarding the challenge of independent claim 1 as allegedly obvious over Guyot and Apte. *See generally* PO Resp. Having carefully reviewed the parties' arguments and evidence, we determine Petitioner has demonstrated by a preponderance of the evidence that dependent claim 14 was obvious over Guyot, Apte, and RFC1635. *E.g.*, Pet. 68–72.

G. OTHER GROUNDS

Having determined that challenged claims 1–19 are all unpatentable under Petitioner's Guyot-based grounds, we do not reach Petitioner's Robinson-based grounds.

III. CONCLUSION

Having reviewed the argument and supporting evidence of record, and after a full and fair hearing, we determine that Petitioner has demonstrated by a preponderance of the evidence that claims 1–19 are unpatentable under the Guyot-based grounds.[17] This Final Written Decision, therefore, addresses all challenged claims of the '410 patent. *SAS Inst. Inc. v. Iancu*, 138 S. Ct. 1348, 1359 (2018) (holding a petitioner "is entitled to a final written decision addressing all of the claims it has challenged"); *Boston Sci. Scimed, Inc. v. Cook Grp. Inc.*, Nos. 2019-1594, -1604, -1605, 2020 WL 2071962, at *4 (Fed. Cir. Apr. 30, 2020) (non-precedential) (recognizing that the "Board need not address issues that are not necessary to the resolution of the proceeding" and, thus, agreeing that the Board has "discretion to decline to decide additional instituted grounds once the petitioner has prevailed on all its challenged claims").

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

Claims	35 U.S.C. §	Reference(s)/Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
1–3, 5–8, 10–13, 15–19	103(a)	Guyot, Apte	1–3, 5–8, 10–13, 15–19	
1–3, 5–9, 12, 13, 15–19	103(a)[18]	Robinson, Kobata, Apte, LeMole		
4	103(a)	Guyot, Apte, Linsk	4	
4	103(a)[19]	Robinson, Kobata, Apte, LeMole, Linsk		
9	103(a)	Guyot, Apte, Robinson	9	
10, 11	103(a)[20]	Robinson, Kobata, Apte, LeMole, Gerace		
14	103(a)	Guyot, Apte, RFC1635	14	
14	103(a)[21]	Robinson, Kobata, Apte, LeMole, RFC1635		
Overall Outcome			**1–19**	

[18] We do not reach whether the claims are unpatentable under this alternative ground because we have determined those claims are unpatentable under the Guyot-based ground.

[19] *See supra* n.18.

[20] *See supra* n.18.

[21] *See supra* n.18.

IV. ORDER

In consideration of the foregoing, it is hereby

ORDERED that claims 1–19 of the ’410 patent are determined to be unpatentable; and

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

For PETITIONER:

David McCombs
Raghav Bajaj
HAYNES AND BOONE, LLP
david.mccombs.ipr@haynesboone.com
raghav.bajaj.ipr@haynesboone.com

Andrew Baluch
Amy Greywitt
Matthew Smith
SMITH BALUCH LLP
baluch@smithbaluch.com
greywitt@smithbaluch.com
smith@smithbaluch.com

For PATENT OWNER:

Andrea Pacelli
Michael DeVincenzo
Charles Wizenfeld
KING & WOOD MALLESONS LLP
andrea.pacelli@us.kwm.com
michael.devincenzo@us.kwm.com
charles.wizenfeld@us.kwm.com