

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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TWITTER, INC. and GOOGLE LLC,  
Petitioner,

v.

B.E. TECHNOLOGY, L.L.C.,  
Patent Owner.

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IPR2021-00482  
IPR2021-00483  
Patent 8,769,440 B2

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

QUINN, *Administrative Patent Judge.*

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

## I. INTRODUCTION

We instituted *inter partes* review pursuant to 35 U.S.C. § 314 to review claims 1–37 of U.S. Patent No. 8,769,440 B2 (“the ’440 patent”) owned by B.E. Technology, L.L.C. 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 1–24 and 26–27 of the ’440 patent are unpatentable. And Petitioner has not shown by a preponderance of the evidence that claim 25 is unpatentable.

## II. CONSOLIDATION OF PROCEEDINGS

The two captioned proceedings (IPR2021-00482<sup>1</sup> and IPR2021-00483<sup>2</sup>) involve the ’440 patent. The 482 IPR challenges the sole independent claim of the ’440 patent (claim 1) together with a subset of dependent claims. The 483 IPR challenges only dependent claims. The proceedings have a substantial overlap of asserted prior art, present the same expert testimony, and involve the same threshold issues. For instance, the arguments presented by Patent Owner for both proceedings are identical as they primarily focus on the sole independent claim of the ’440 patent. In our Decision on Institution we determined that under the circumstances presented, consolidation is appropriate because the Board can more efficiently handle the common issues and evidence, and also remain consistent across proceedings. 482 IPR, Paper 9, 2–3; 483 IPR, Paper 9,

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<sup>1</sup> Hereinafter referred to as “the 482 IPR.”

<sup>2</sup> Hereinafter referred to as “the 483 IPR.”

2–3 (“Decision” or “Dec. on Inst.”).<sup>3</sup> Under 35 U.S.C. § 315(d), the Director may determine the manner in which these pending proceedings may proceed, including “providing for stay, transfer, consolidation, or termination of any such matter or proceeding.” *See also* 37 C.F.R. § 42.4(a) (“The Board institutes the trial on behalf of the Director.”). And more specifically Rule 122(a) specifically authorizes the Board to consolidate multiple proceedings involving the patent that is before the Office. 37 C.F.R. § 122(a). Therefore, for a more efficient disposition of these proceedings, we consolidate the 482 IPR and 483 IPR for rendering this consolidated Final Written Decision.

### III. PROCEDURAL BACKGROUND

Twitter, Inc. and Google LLC (“Petitioner”) filed two Petitions requesting *inter partes* review of different set of claims of the ’440 patent:

(a) in the 482 IPR, Petitioner requested review of 1, 5–12, and 25–27 (482 IPR, Paper 3 (“482 Pet.” or “Pet.”)); and

(b) in the 483 IPR, Petitioner requested review of claims 2–4, 13–24, and 28–37 (483 IPR, Paper 4 (“483 Pet.”)).

B.E. Technology, L.L.C. (“Patent Owner”) timely filed a Preliminary Response in both proceedings, presenting essentially the same arguments in both papers. IPR2021-00482, Paper 8 (“482 Prelim. Resp.” or “Prelim. Resp.”); IPR2021-00483, Paper 8 (“483 Prelim. Resp.”). After considering the merits of the Petition and the arguments against institution by Patent

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<sup>3</sup> The consolidated Decision on Institution was entered into the record of each proceeding.

Owner, we consolidated the proceedings for purposes of institution and instituted *inter partes* review. 482 IPR, Paper 9 and 483 IPR, Paper 9.

During the trial phase, Patent Owner filed a substantially identical Response in each proceeding, except for the arguments directed to claim 25, which is only challenged in the 482 IPR.<sup>4</sup> Petitioner filed a Reply in each proceeding, addressing substantially the same argument on both briefs, except for the discussion of claim 25, challenge only in the 482 IPR.<sup>5</sup> Patent Owner filed a Sur-reply.<sup>6</sup> We held Oral Argument on June 6, 2022, the transcript of which is filed in the record of both captioned proceedings.<sup>7</sup>

Because the record in the captioned proceedings is substantially similar, hereinafter we cite to the record in the 482 IPR unless specifically stated otherwise.

#### *A. Related Matters*

The '440 patent is involved in two district court matters pending in the District of Delaware: *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. 482 Pet. 1; 483 Pet. 1.

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<sup>4</sup> 482 IPR, Paper 18 (“482 PO Resp.” or “PO Resp.”); 483 IPR, Paper 22 (“483 PO Resp.”).

<sup>5</sup> 482 IPR, Paper 20 (“482 Reply” or “Reply”); 483 IPR, Paper 24 (“483 Reply”).

<sup>6</sup> 482 IPR, Paper 21 (“482 Sur-reply” or “Sur-reply”); 483 IPR, Paper 25 (“483 Sur-reply”).

<sup>7</sup> 482 IPR, Paper 28 (“Tr.”); 483 IPR, Paper 32.

In addition to the two concurrent proceedings, Petitioner has filed petitions challenging patents related to the '440 patent. *See* IPR2021-00484 and IPR2021-00485.

The parties also identify various *inter partes* reviews that involved patents related to the '440 patent, including IPR2014-00038, IPR2014-00699, IPR2014-00039, IPR2014-00738, IPR2014-00052, IPR2014-00053, IPR2014-00698, IPR2014-00743, IPR2014-00744, all of which involved U.S. Patent No. 6,628,314 (“the '314 patent”). *See* Exs. 1036–1038. The Board issued Final Written Decisions in all of the above identified proceedings and the appeals from those decisions to the Federal Circuit have been completed, resulting in an opinion affirming the Board’s determinations, for instance, that certain claims of the '314 patent were anticipated by U.S. Patent No. 6,119,098 (“Guyot”). *See* Ex. 1037; Ex. 1039 (*B.E. Technology, L.L.C., v. Google, Inc., et al.*, 2016 WL 6803057 (Fed. Cir. 2016) (“the Federal Circuit Decision”)).

#### *B. Real Parties in Interest*

Patent Owner asserts that B.E. Technology L.L.C. is the owner of the entire interest in the '440 patent and is the real party in interest. Prelim. Resp. 1. Petitioner identifies Twitter, Inc. and Google LLC as the sole real parties in interest. 482 Pet. 1; 483 Pet. 1. There is no dispute as to whether the identified parties are real parties-in-interest.

### IV. THE '440 PATENT AND PRESENTED CHALLENGES

#### *A. The '440 Patent, Exhibit 1001*

The '440 patent relates to user interfaces that provide advertising obtained over a global computer network. Ex. 1001, 1:22–25. The

'440 patent discloses a client software application that comprises a graphical user interface (GUI) program module and an advertising and data management (ADM) module. *Id.* at 6:13–16. The GUI generates an application window that includes multiple regions, one of which is a banner region for advertisements and other messages processed by the ADM module. *Id.* at 7:4–9. The GUI module also reports computer usage information to the ADM server, accesses new banner advertising from the server, and, when available, downloads a new ADM module. *Id.* at 7:64–8:2. The system for selecting and providing advertisements is set forth in Figure 3 as follows:

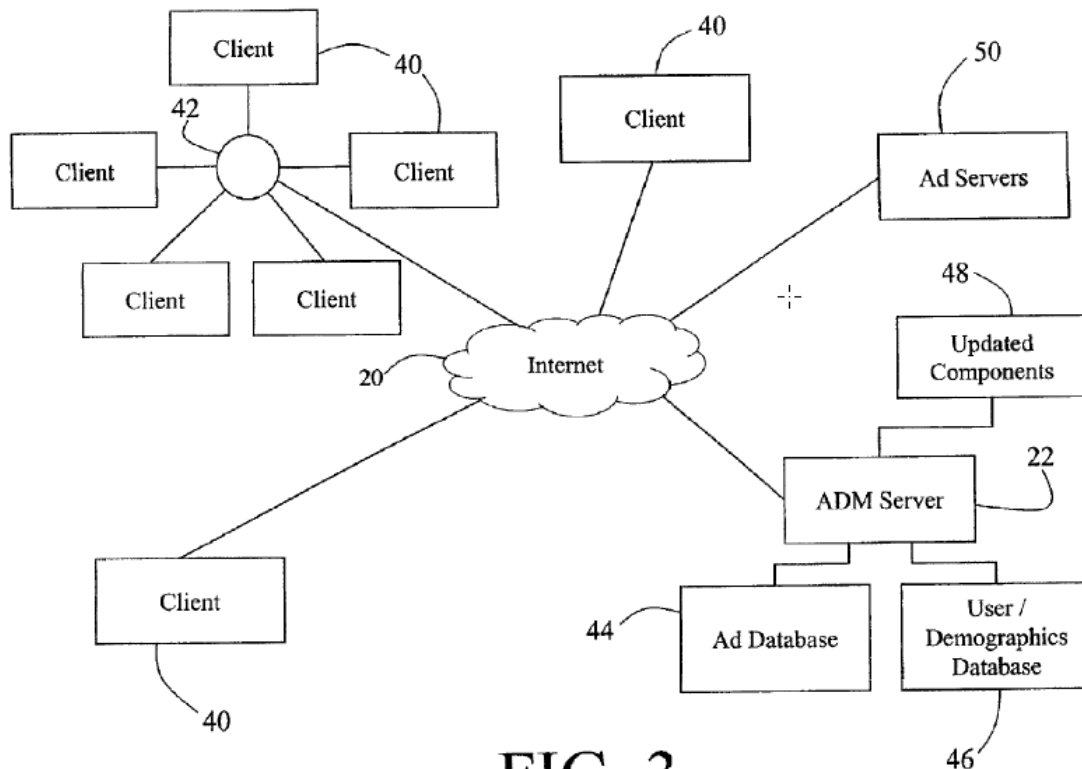


FIG. 3

Figure 3 illustrates a block diagram of a system distributing advertisements over the Internet. *Id.* at 8:9–20. ADM server 22 is accessible by client computers 40 over Internet 20, where client computers 40 have the client software application installed. *Id.* ADM server 22 has associated with it Ad Database 44 and User/Demographics Database 46. *Id.* at 8:15–16. Ad Database 44 stores banner advertising that is provided to client computers 40. *Id.* at 8:16–20. User/Demographics Database 46 stores demographic information used in targeting advertising downloaded to individual client computers 40. *Id.* at 8:32–34.

When a user first accesses the client software application for the purposes of downloading and installing the application, the user submits demographic information that is used to determine what advertising is provided to the user. *Id.* at 8:34–38. Advertisement, however, can be based on user activities, such as is determined by supplied user information, determination of applications used, recognition of files opened, and observation of URLs visited. *Id.* at 8:53–56. ADM server 22 then assigns a unique ID to the user and stores the unique ID with the received user demographic information. *Id.* at 21:25–28. Upon installing the client software application, the application declares itself a new installation and the server provides an identifier for subsequent identifications between the application and the server. *Id.* at 21:62–65. However, 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 to a particular computer or through a client software application. *Id.* at 21:65–22:2.

*B. Illustrative Claim*

Claim 1 is the sole independent claim of the '440 patent. All of the remaining challenged claims depend directly or indirectly from claim 1, which is reproduced below.

1. A method comprising:

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

    transferring a copy of software to a computer associated with the computer user, the software being configured to run on the computer to display advertising content and record computer usage information associated with utilization of the computer, wherein the computer usage information includes data regarding one or more programs run on the computer;

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

    selecting an advertisement to be displayed on the computer, the selection based at least on information associated with the unique identifier identifying the computer;

    receiving a request for an advertisement from the computer; and

    providing the selected advertisement for display on the computer in response to the request.

Ex. 1001, 34:21–41.



*C. Asserted Prior Art and Grounds of Unpatentability*

The prior art references Petitioner relies on in the challenge of unpatentability is filed in both proceedings using consistent Exhibit numbers as follows:

- a) *Guyot*: US 6,119,098, filed on October 14, 1997 and issued September 12, 2000, filed as Exhibit 1041;
- b) *Robinson*: US 5,918,014, filed on December 26, 1996 and issued June 29, 1999, filed as Exhibit 1004;
- c) *Kobata*: US 6,058,418, filed on February 18, 1997 and issued May 2, 2000, filed as Exhibit 1005;
- d) *Angles*: US 5,933,811, filed on August 20, 1996 and issued August 3, 1999, filed as Exhibit 1006;
- e) *Lazarus*: US 6,134,532, filed on November 14, 1997 and issued October 17, 2000, filed as Exhibit 1019;
- f) *Kikinis*: WO 97/09682, published March 13, 1997, filed as Exhibit 1025;
- g) *Apte*: US 7,225,142 B1, filed August 1, 1996 and issued May 29, 2007, filed as Exhibit 1008;
- h) *Cheng*: US 6,151,643, filed June 7, 1996 and issued November 21, 2000, filed as Exhibit 1014;
- i) *Ellsworth*: “Using Compuserve” book with copyright notice dated 1994, filed as Exhibit 1026;

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j) *Blumenau*: US 7,680,889 B2, filed March 30, 2005 and issued March 16, 2010, filed as Exhibit 1030.

The following grounds of unpatentability are asserted across the two proceedings as follows:

<b>Claims Challenged In IPR2021-00482</b>	<b>35 U.S.C. §</b>	<b>Reference(s)</b>
1, 5–7, 10–12, 26, 27	102	Guyot
8	103	Guyot, Lazarus
9	103	Guyot, Angles
25	103	Guyot
1, 5–7, 10–12, 26, 27	103	Robinson, Kobata, Angles
8	103	Robinson, Kobata, Angles, Lazarus
<b>Claims Challenged In IPR2021-00483</b>	<b>35 U.S.C. §</b>	<b>Reference(s)</b>
2–4	103	Guyot, Kikinis
13–18	103	Guyot, Apte, Angles
19, 20	103	Guyot, Apte, Angles, Cheng
21–24	103	Guyot, Ellsworth
28–37	103	Guyot, Blumenau
2–4	103	Robinson, Kobata, Angles, Kikinis
13–18	103	Robinson, Kobata, Angles, Apte
19, 20	103	Robinson, Kobata, Angles, Apte, Cheng
21–24	103	Robinson, Kobata, Angles, Ellsworth
28–37	103	Robinson, Kobata, Angles, Blumenau

Petitioner also relies on a Declaration of Dr. Henry H. Houh, filed as Exhibit 1007 in both proceedings (“Houh Decl.”). In support of its Reply, Petitioner filed a Supplemental Declaration of Dr. Houh, filed as Exhibit 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, filed as Exhibit 2007 (“Zatkovich Decl.”). The deposition transcript of Mr. Zatkovich is filed in the record as Exhibit 1098 (“Zatkovich Depo.”).

## V. ANALYSIS

### A. Claim Construction

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. 10; 482 Pet. 13; 483 Pet. 12; Prelim. Resp. 9–10. 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 1–9. 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.” Ex. 1001, 34:22–23. 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.* (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, combining [], either directly or indirectly.” Reply 1 (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 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 45 (PTAB March 31, 2015),<sup>8</sup> 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; Ex. 1038, 8.

We are not persuaded by Patent Owner’s argument. The word “associated” is recited four 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;” and
- iv. “information *associated* with the unique identifier.”

Ex. 1001, 34:25–26, 27–28, 31–32, 35–36 (emphasis added). The claim is silent as to how any of these recited “associations” is performed—whether by linking data, tabulating data, or maintaining a database with the recited data. We recognize that, within the context of the Specification, the

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<sup>8</sup> Hereinafter we refer to this decision of the Board as the ’52 FWD. Ex. 1038 (which erroneously identifies the Final Written Decision in that proceeding as Paper 10).

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 29:61–64 (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—nor does the claim provide any technical detail as to the other associations, which are also recited using plain and ordinary language. 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 another 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, 34:27–30. 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. 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, 22:39–42). 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, 22:39–42. 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 ’440 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, 9.<sup>9</sup> Here, however, claim 1

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<sup>9</sup> The Board applied the broadest reasonable interpretation standard in IPR2014-00052, representing another difference between the proceedings. *See* ’052 FWD, 9. However, we note that during oral argument Patent Owner argued that under the *Phillips* claim construction 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.

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 2–3; 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 information associated with the unique identifier identifying the computer." Thus,

claim 1 requires a “unique identifier” that is both “associated with the computer” and “identif[ies] the computer.” Ex. 1001, 34:31–32, 36–37.

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.* (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),<sup>10</sup> 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 4 (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”

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<sup>10</sup> Hereinafter we refer to this decision of the Board as the ’39 FWD. Ex. 1037.

language on the prior art, Petitioner argues that “any ‘user’ and ‘computer 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 9 (citing Supp. Houh Decl. ¶¶ 57–59; Ex. 1094 at 243; Ex. 1098, 66:18–69:13) (alteration in original).

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 3 (citing Reply 9; 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 4–5. Patent Owner also takes issue with Petitioner’s position because Patent Owner 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 (“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 ’440 Patent discloses various ‘unique identifier[s] identifying a computer.’” Sur-reply 5 (citing PO Resp. 24–26) (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 be 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.<sup>11</sup> 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

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<sup>11</sup> Here too, as in IPR2014-00052, the Board applied the broadest reasonable interpretation standard. IPR2014-00039, Paper 43, 7.

at issue in the '314 patent did not include language similar to the claim 1 language in the '440 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 Petitioner’s argument that “unique identifier” in claim 1 of the '440 patent could encompass a user identifier. *See* Reply 3. 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, 34:32–33. 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 20:6–12. 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 21:65–22:2. 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 22:37–46. 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 22:46–55; *see also id.* at 23:8–12 (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 21:62–22:2. 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, 22:37–39. 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 22:42–46. 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 22:46–50. 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 22:51–55. 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.<sup>12</sup> 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, 22:46–48. 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, 27:58–62. 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, 27:62–66.

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 24:9–11 (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 20:6–12 (stating that computer usage information “can be associated with the user’s demographic

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<sup>12</sup> We note here that the client software application installation ID is used for version control and determining whether an upgrade is necessary. Ex. 1001, 26:30–36, 29:56–58 (“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) description of the installation ID being used in the process of selecting advertisement.

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 21:65–22:6. We understand from these descriptions and the descriptions at columns 21 and 22 of the ’440 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,<sup>13</sup> which is transportable and saved in the server, can be accessed. *Id.* at 22:17–28, 28:16–21 (describing how after login, a user profile can be invoked when the individual user is identified), 30:29–32 (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 9:16–21 (“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 ’440 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 ’440 patent Specification describes that the user identifier, because it is used to uniquely

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<sup>13</sup> According to the ’440 patent, the server stores the user identity and demographic information as a user profile. Ex. 1001, 30:22–26.

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."

4. "real time" reactive targeting

Claim 25 recites "providing reactive targeting of advertising to the user in real time by selecting and presenting an advertisement based at least in part on user interaction with the computer." Ex. 1001, 36:34–37. Petitioner contends that "the claim itself provides its interpretation and how a POSITA would have understood the limitations, consistent with the specification." Reply 7 (citing Supp. Houh Decl. ¶¶ 33–38). In particular, Petitioner asserts that "[b]oth parties' experts agree that '*real time* refers to presenting an advertisement in reaction to a user's computer interaction" (*id.* (citing Supp. Houh Decl. ¶ 36; Zatkovich Depo., 53:9–23)), but that "selecting and presenting' is not required to be performed in 'real time'" (*id.* at 23; *see also* Tr. 25:22–24 ("Real-time modifies providing reactive targeting of advertising to the user. It does not modify selecting or presenting.")).

At the hearing, Petitioner clarified this position, stating that, "[y]es, the real-time targeting does refer to selecting and presenting, but in the way

expressly set forth in the claim that selecting and presenting must be done in response to some user interaction which then achieves the claim's goal of providing reactive targeting in real-time." Tr. 26:22–27:1. That is, "[t]here is no temporal requirement disclosed for the user interaction with the computer." *Id.* at 27:2–3. Further, Petitioner asserts that "there is no boundary regarding how soon ads must be displayed after they are initially selected nor is there any express requirement regarding how soon the ads must be presented following the user action." *Id.* at 28:10–13. Petitioner further asserts that Patent Owner's expert testified that reactive targeting in real time can include identifying an advertisement that has already been downloaded. *Id.* at 91:25–92:6.

Patent Owner contends that Petitioner's analysis of claim 25 relies on an incorrect interpretation of the claim in which "the selection of an advertisement can be based on a user's *past* interaction with a computer." Sur-reply 7 (citing Reply 22–23). Patent Owner argues that claim 25, "in context, specifies that to provide reactive targeting of advertising in real-time, such advertisement is selected and presented in real-time." *Id.* In other words, "this entire step is a real-time step." Tr. 79:10.

Accordingly, the parties' dispute with respect to claim 25 is over the timing of the selection of an advertisement that is provided to the user. We agree with Patent Owner that providing reactive targeting of advertising in real time means that the selecting and presenting an advertisement based at least in part on user interaction with the computer does not encompass *past* interaction with a computer.

The Specification describes “a two-tiered approach to targeted advertising.” Ex. 1001, 20:1. The first tier is the “initial selection of banners” that are based on the user’s demographic information. *Id.* at 20:2–4. The second tier is the “reactive targeting of the advertisements based upon the user interaction with the computer.” *Id.* at 20:4–5. The Specification states that the reactive targeting provided by the client software application “is handled in real time, rather than simply as a part of building a set of advertisements for later display to the user.” *Id.* at 20:18–21. In particular, the Specification describes that the display of advertising is “relevant to what the user is doing at any particular time.” *Id.* at 20:21–23. The Specification, thus describes that the display of advertisement is based on the current user activity—not based on past activity of the user.

As for selecting advertisement in real time, the Specification also describes a present action by the user. For instance, if the user is searching for information on stocks, then the client software application *detects that activity* and displays advertisement *relevant to that topic*. *Id.* at 20:23–31. And for computers connected to the Internet full time, the reactive targeting “can be used to *access a specific advertisement* over the Internet, rather than [] a pre-stored banner from banner storage 30.” *Id.* at 20:31–35 (emphasis added). The server receives “posted form data” during the user’s actions, and the server uses that data to select and download an appropriate advertisement. *Id.* at 20:37–42. This process avoids having to pre-load the user’s computer with a limited pool of advertisements. *Id.* at 20:42–45.

From the Specification we understand that both the selecting and the presenting of advertisement is performed in real time, based on current user interaction. By explaining how the server receives the posted form data that notifies it of the user's actions, the server then selects the appropriate advertisement to download to the user. This real-time targeting of advertising, therefore, includes real-time selecting of advertisements based on the current user interaction with the computer. Accordingly, we determine, that claim 25 excludes past user actions as the basis by which to select and present an advertisement in the "reactive targeting of advertising to the user in real time."

*B. 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.” 482 Pet. 10 (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.

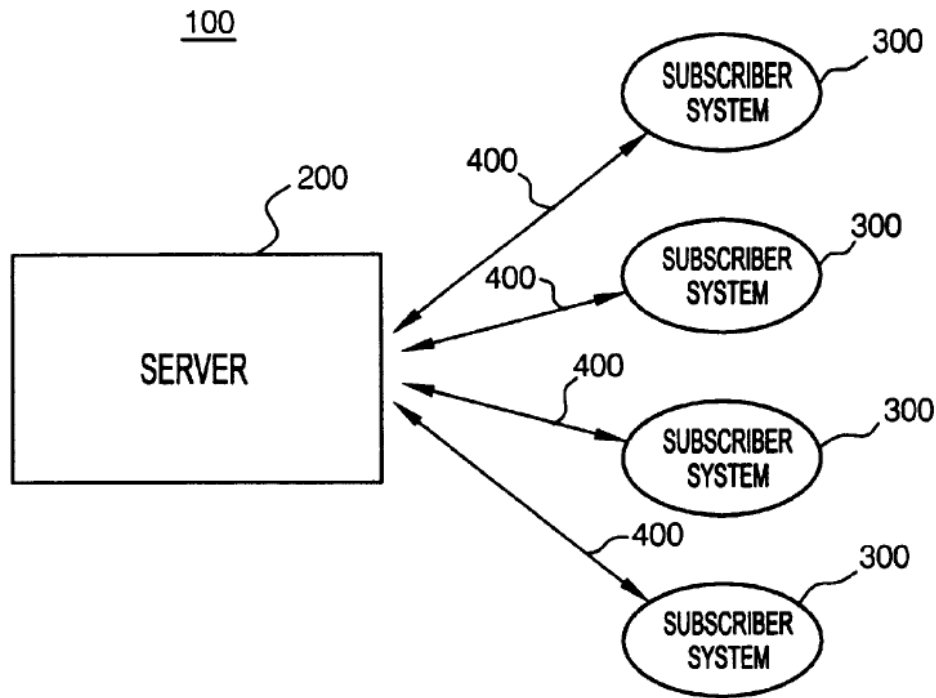
### *C. Grounds Based on Guyot*

Petitioner presents nine separate grounds based on Guyot. *See supra*, Section IV.C. Claim 1 is the sole independent claim, and Petitioner’s challenge of that claim is that Guyot anticipates. The rest of the claims are challenged as either anticipated by Guyot, or as a challenge of obviousness

based on a variety of combinations of Guyot and other references. *Id.*  
Before presenting the analysis of each claim, we summarize Guyot.

1. Overview of Guyot (Ex. 1041)

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 3:24–26. 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 4:15–23. This information is utilized to refine the subscriber's personal profile. *Id.*

## 2. Analysis of Grounds Based on Guyot

After considering Petitioner's contentions and Patent Owner's arguments in opposition, we are persuaded that Petitioner has demonstrated by a preponderance of the evidence that claim 1 is anticipated by Guyot, but we are not persuaded that Petitioner has demonstrated by a preponderance of the evidence that claim 25 would have been obvious over Guyot.

We also determine that Petitioner has shown by a preponderance of the evidence that Guyot anticipates, or renders obvious in the asserted combinations with the references of record (Lazarus, Angles, Kikinis, Apte, Cheng, Ellsworth, Blumenau), all the other challenged dependent claims (claims 2–24 and 26–37), for which Patent Owner does not provide arguments in opposition.

### i. *Independent Claim 1*<sup>14</sup>

Petitioner asserts that the Board (affirmed by the Federal Circuit) has already found that Guyot discloses many of the claim limitations recited in claim 1. Pet. 15–16 n.4, 16 n.5, 17 nn.6–7, 18 n.8, 20 n.10, 21 n.11, 24 n.13, 25 n.14; Ex. 1037; Ex. 1039. Patent Owner presents a history of the prior PTAB proceeding addressing a different patent, the '314 patent, to point out that the prior proceeding did not address differences in the language of the '440 patent claims. PO Resp. 6–9. Patent Owner then addresses the limitations that it asserts are lacking in the prior art, and we address those arguments in connection with those limitations below. *Id.* at 12–36.

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<sup>14</sup> All citations to papers in this Section V.C.2.i of the Decision correspond to papers filed in the 482 IPR.

*(1) “permitting a computer user to access one or more servers via a network”*

The first limitation of the claimed method recites, “permitting a computer user to access one or more servers via a network.” Ex. 1001, 34:22–23. Petitioner refers to this limitation as number “1.1”—but we refer to it more substantively as the “permitting access” limitation. The Petition points out that Guyot uses a server to deliver targeted advertising to users, and the server communicates with client computers through a network, such as the Internet. Pet. 16 (citing Ex. 1041, Fig. 3, 1:8–10, 1:60–65, 2:29–35, 3:18–4:27, 5:18–27, 5:62–67; Houh Decl. ¶¶ 99–100). Petitioner argues that “[t]he client computers *access* the server, because a user can use the ‘client application that runs on a subscriber’s computer’ to update demographic information on the server, send usage information to the server, and receive advertising content from the server via a computer network.” *Id.* (citing Ex. 1041, 1:59–60, 2:29–35, 3:18–20, 5:18–27, 6:31–39; Houh Decl. ¶ 101). Patent Owner does not address this limitation.

We find that Guyot discloses the “permitting access” limitation for the reasons provided by Petitioner and supported by the evidence Petitioner provides, as stated above.

*(2) “transferring a copy of software to a computer associated with the computer user”*

Claim 1 recites “transferring a copy of software to a computer associated with the computer user,” which Petitioner identifies as limitation “1.2.1”—but we refer to it as the “computer-to-computer user association” limitation. Ex. 1001, 34:24–25. 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. 17 (citing Ex. 1041, 5:18–23, 7:25–28, 8:28–50, Fig. 6A; Houh Decl. ¶¶ 104–106) (alteration in original).

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 LOCISOFT 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 [though] 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 [principles].” *Id.* Mr. Zatkovich testifies in support stating that “Computer 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, 27:57–62, 28:4–7, 28:16–17).

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 7–8 (citing Ex. 1041, code (57), 5:18–23, 7:25–28, 8:28–50) (emphasis omitted); Supp. Houh Decl. ¶¶ 44–51. 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 computer merely reflects the fact that a subscriber may be at, or own, a computer.” Sur-reply 9. 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.* at 9–10.

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 V.A.2. 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. ¶ 46.



Second, we determine that the '440 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 200" (emphasis added)). This informs us that there is an express joining, connection or relationship between the computer user 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 claimed 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 '440 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, 27:58–66. 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 ’440 patent is not material. Guyot discloses what is claimed, a transfer of the copy of the client application to a computer associated with the computer user. As stated above, when the subscriber presses the connect button on the application, the client software issues a LOCISOFT 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.

(3) *“the software being configured to run on the computer to display advertising content and record computer usage information associated with utilization of the computer”*

Claim 1 further recites: “the software being configured to run on the computer to display advertising content and record computer usage information associated with utilization of the computer.” Petitioner refers to this limitation as limitation “1.2.2” and we refer to it as the “software configuration” limitation.

The Petition points to Guyot disclosing that while running on the user’s computer, the downloaded client application displays advertisements in an advertising window that is continuously displayed on the subscriber computer. Pet. 17 (citing Ex. 1041, Fig. 4A, 2:1–6, 5:45–54, 11:3–5). Petitioner further argues Guyot records computer usage information because the client application keeps track of Internet sites that the subscriber has accessed over a predetermined amount of time and that Guyot tracks a user’s mouse and keyboard activity to determine the best time to display advertising to the user. *Id.* at 17–18 (citing Ex. 1041, 2:36–42, 5:6–11; Zatkovich Decl. ¶¶ 107–110).

Patent Owner does not present argument concerning this limitation. We agree with Petitioner that Guyot discloses the “software configuration” limitation. For instance, and as stated above, Guyot describes that its client application displays advertisements in a separate window and that it records

the subscriber's access to Internet sites, which information is then transferred to the server and stored as "Subscriber Statistics." Ex. 1041, 2:1–6; 2:36–42; 4:18–21; 5:45–54. Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that Guyot anticipates the "software configuration" limitation.

(4) *"wherein the computer usage information includes data regarding one or more programs run on the computer"*

Claim 1 recites: "wherein the computer usage information includes data regarding one or more programs run on the computer." Petitioner identifies this limitation as limitation "1.2.3" and we refer to it as the "computer usage information" limitation. The Petition points to Guyot's disclosure that the Subscriber Statistics include the information on computer usage and that this information refers to the Internet access using software that is separate from the client application software. Pet. 18 (citing Ex. 1041, 4:19–22; 5:62–67). Patent Owner does not address this limitation.

We find that Guyot discloses the "computer usage" limitation for the reasons provided by Petitioner and supported by the evidence Petitioner provides, as stated above.

(5) *"determining a unique identifier associated with the computer, wherein the identifier uniquely identifies information sent from the computer to the one or more servers"*

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." Petitioner refers to this limitation

as limitation “1.3” and we refer to it 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. 19; Reply 16 (stating that “Petitioner also relied on Guyot’s ‘unique proprietary identifier’ as alternatively disclosing this limitation,” referring to “unique identifier identifying the computer” (limitation 1.4) 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. 19; Reply 8–12.

We address each of these contentions in turn.

*(a) Guyot’s unique proprietary identifier*

In our Decision on Institution, we determined that Petitioner had not shown a reasonable likelihood of prevailing on its assertion that the claim limitation was satisfied by Guyot’s “unique proprietary identifier.” Dec. on Inst. 16–18. In particular, we determined that the Petition fails to point out how Guyot discloses that the “unique proprietary identifier” uniquely identifies the information sent from the computer to one or more servers, in addition to identifying the computer. *Id.* at 16–17. 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 16. 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. We stated in our Decision on Institution that 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 also addressed, and remain persuaded, that the Petition does not propose a "combination" of unique identifiers that together meet the unique identifier recited in the claim. We stated:

To the extent Petitioner attempts to argue 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, and, at any event, as stated above, Guyot is silent concerning the role, if any, of the "unique proprietary identifier" in the disclosed method of advertisement selection. *See* Pet. 20 (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’).").

*Id.* at 17 n.4. 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 16. 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). This is an anticipation ground, and, therefore, there must be sufficient evidence within the confines of the Guyot disclosure that alludes to the “unique proprietary identifier” serving to identify the information that is used to select advertisement. There is no such disclosure. And “it is not enough that the prior art reference discloses part of the claimed invention, which an ordinary artisan might supplement to make the whole, or that it includes multiple, distinct teachings that the artisan might somehow combine to achieve the claimed invention.” *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1371 (Fed. Cir. 2008). “[D]ifferences

between the prior art reference and a claimed invention, however slight, invoke the question of obviousness, not anticipation.” *Id.*

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 “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 again 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 [1.4].” Pet. 19. 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 [1.4],” 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 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. 19 (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.* (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. ¶¶ 116–117).

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. 19–20. 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. ¶¶ 116–117). 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 '440 patent Specification. *Id.* at 24.

In Reply, Petitioner explains how the single-user/single-computer scenario of Guyot discloses this limitation. Reply 10–12. For instance, Petitioner argues that “Guyot's advertisement database stores Subscriber Data for each subscriber, including unique identification information (unique

identifier).” *Id.* at 11. 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.* at 11–12 (citing Supp. Houh Decl. ¶¶ 52–69).

Patent Owner characterizes the above explanation as a “fanciful description” of Guyot. Sur-reply 14–15. 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.* at 15. 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.*

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 V.A.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 ’440 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 the next limitation—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, 22:37–39. 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 V.C.2.i.(2). 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. ¶ 54.

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 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. ¶ 116. 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.* ¶¶ 116–117. 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. ¶ 55. 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.* ¶ 56.

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. 19; 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. ¶ 55. 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. ¶¶ 65–67. 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 '440 patent. Zatkovich Decl. ¶¶ 59–62. We have rejected this characterization in our discussion of the claim construction, because the '440 patent Specification discloses, among other embodiments, that the userID identifies the user, the demographically targeted advertisement for the user, and the computer. Ex. 1001, 22:37–42; *see supra* Section V.A.3; *see also* Supp. Houh Decl. ¶¶ 60–62 (testifying that the '440 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 '440 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 14–15.



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.

(6) *“selecting an advertisement to be displayed on the computer, the selection based at least on information associated with the unique identifier identifying the computer”*

Claim 1 further recites: “selecting an advertisement to be displayed on the computer, the selection based at least on information associated with the unique identifier identifying the computer.” Ex. 1001, 34:34–37. Petitioner refers to this limitation as limitation “1.4”—and we refer to it 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 information associated with the unique identifier.” 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 does.

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 23 (citing Ex. 1041, 3:18–22; Houh Decl. ¶¶ 123–124). 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. ¶ 124. 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. 20–21 (citing Ex. 1041, 3:23–30, 3:49–54, 4:15–23; Fig. 3; Houh Decl. ¶¶ 119–120). And, as Dr. Houh testifies, “the client application will download the targeted advertising selected from the server whenever it connects to the server.” Houh Decl. ¶ 120 (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 ’440 patent, is identified through the profile, i.e., through the subscriber identification information or “unique identifier.” *See* Supp. Houh Decl. ¶ 79 (“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 12–14.

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 '440 patent emphasizes the benefits of using particular identifiers for particular purposes. PO Resp. 22–23 (arguing that the registration process described in the '440 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 V.A.2–3). Also, Patent Owner presents as an example the disclosure in the '440 patent that the user profile associated with each user can be accessed from different installations, irrespective of the computer or operating system that user employs. *Id.* at 23 (citing Ex. 1001, 22:17–19). This example, however, does not show that the '440 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 '440 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 V.A.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. 25–29 (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 ’440 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, 68:3–72:17. This testimony is also consistent 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, 22:37–46. Furthermore, in stating that the ’440 patent discusses only identifying users, and not identifying computers (Supp. Houh Decl. ¶ 85) we take that to mean that in the selecting of advertisement and delivering that advertisement, the ’440 patent is silent as to what role, if any, the computer installation or computer identifier plays. In the embodiment described above, the ’440 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. ¶¶ 80–82. 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 . . .” 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.” 482 Pet. 20–21 (citing Ex. 1041, 1:60–65, 3:23–30, 3:49–54, 4:15–23, Fig. 3; Houh Decl. ¶¶ 119–120). 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 11–16.

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. ¶ 56. 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.

Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that Guyot anticipates the “selecting an advertisement” limitation.

(7) *“receiving a request for an advertisement from the computer; and”*

Claim 1 further recites: “receiving a request for an advertisement from the computer.” Ex. 1001, 34:38–39. Petitioner refers to this limitation as limitation “1.5”—and we refer to it as the “receiving a request” limitation.



The Petition points to Guyot’s disclosure that the client application may automatically request more advertising content when the advertising queue is running low, as well as Guyot’s disclosure that a user may select an Internet link in an advertisement window for additional advertising content. Pet. 24 (citing Ex. 1041, 2:29–35, 5:18–27, 5:52–67, 6:43–46; Houh Decl. ¶¶ 126–127).

Patent Owner does not present argument concerning this limitation. *See* PO Resp.; Sur-reply. We agree with Petitioner that Guyot discloses the “receiving a request” limitation. As identified by Petitioner, Guyot describes at least two different ways of receiving a request for an advertisement from the client application on a subscriber device 300. *See, e.g.,* Ex. 1041, 5:18–20 (“When the processor 310 establishes a connection with the server 200, the processor 310 refreshes the queue of the advertisements to be displayed”); 5:52–61 (“[T]he advertisement document displayed in the advertisement window 530 may include an Internet link 580. . . . When the subscriber selects the Internet link 580, the processor 310 retrieves or ‘fetches’ the document . . .”). Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that Guyot anticipates the “receiving a request” limitation.

(8) *“providing the selected advertisement for display on the computer in response to the request”*

Claim 1 further recites: “providing the selected advertisement for display on the computer in response to the request.” Ex. 1001, 34:40–41. Petitioner refers to this limitation as limitation “1.6”—and we refer to it as the “providing the selected advertisement” limitation.

The Petition points to Guyot’s disclosure that the client application downloads a selected advertisement from the server and displays the advertisement, as well as Guyot’s disclosure that a user’s selection of an Internet link results in retrieving additional advertising material for display. 482 Pet. 25 (citing Ex. 1041, 1:60–65, 2:29–35, 3:23–30, 5:18–27, 5:52–67; Houh Decl. ¶¶ 129–130).

Patent Owner does not present argument concerning this limitation. *See* PO Resp; Sur-reply. We agree with Petitioner that Guyot discloses the “providing the selected advertisement” limitation. Specifically, Guyot discloses, for example, downloading advertisements specifically targeted to a subscriber after which “subscriber system 300 then display[s] the targeted advertisements.” Ex. 1041, 3:25–29. Guyot also discloses an “advertisement document displayed in the advertisement window 530” that “may include an Internet link 580,” so that when a subscriber clicks the link, “processor 310 retrieves or ‘fetches’ the document associated with the Internet link 580.” *Id.* at 5:54–61. Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that Guyot anticipates the “providing the selected advertisement” limitation.

*(9) Conclusion as to Claim 1*

Based on the foregoing analysis, we determine that Petitioner has shown by a preponderance of the evidence that Guyot anticipates claim 1.

ii. *Claim 2*

Claim 2 depends from claim 1, and recites “wherein the one or more servers include a plurality of libraries containing one or more files, wherein

the libraries include a user library for the computer user, and wherein the method further includes the step of providing the user with access to the user library over the network.” Ex. 1001, 34:42–47.

Petitioner contends that the combination of Guyot and Kikinis renders claim 2 obvious. 483 Pet. 5, 39–41. In particular, Petitioner points to Kikinis’s disclosure of a web server that supports a set of databases, with each database belonging to a different client and including a home page that provides links to lower-order databases. *Id.* at 39 (citing Ex. 1025, 6:32–7:4, 7:17–22; Houh Decl. ¶¶ 212–214). Petitioner asserts that one would have been motivated to combine Kikinis’s teachings with Guyot’s because this would “provid[e] users with ‘real-time remote access to any kind of electronic document,’” and thus provide an incentive to download Guyot’s software for tracking the user’s activity. *Id.* at 40 (quoting Ex. 1025, 6:1–3) (citing Ex. 1041, 6:6–11).

Patent Owner does not present argument concerning claim 2. We agree with Petitioner that Kikinis discloses the claimed “libraries containing one or more files,” in particular, because Kikinis describes “a set of data bases 71” that includes a database having “a home page 73, individualized to a specific client, that provides software links to various lower-order data bases,” such as “an e-mail data base 89, a fax data base 91, a voice mail data base 93, and other electronic documents in data base 95.” Ex. 1025, 6:32–7:4. Further, we find Petitioner’s rationale for combining Kikinis with Guyot persuasive, because one of ordinary skill in the art would have seen the benefit of being able to access various email data, voice mail data, and other document data from an individualized home page, as an addition to

Guyot's software that track's user activity. *See, e.g.*, Houh Decl. ¶ 216 (“[A] POSITA would have recognized that on-line services in the relevant time period (i.e., before 1998) were attempting to differentiate themselves by offering various types of functionality.”). Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that the combination of Guyot and Kikinis renders claim 2 obvious.

iii. *Claim 3*

Claim 3 depends from claim 2, and recites “wherein the one or more servers include a plurality of profiles, including a user profile for the computer user, and wherein the method further includes the step of providing the computer with access to the user profile over the network.” Ex. 1001, 34:48–52.

Petitioner contends the combination of Guyot and Kikinis renders claim 3 obvious. 483 Pet. 5, 41–42. In particular, Petitioner points to Kikinis's disclosure of a particular user-accessible database within a set of databases that includes “a home page 73, individualized to a specific client” as teaching this limitation. *Id.* at 41 (quoting Ex. 1025, 6:32–36, 7:17–19) (citing Houh Decl. ¶¶ 224–226) (emphasis omitted).

Patent Owner does not present argument concerning claim 3. We agree with Petitioner that Kikinis teaches, or at least suggests, the claimed “plurality of profiles” because each home page is “individualized to a specific client,” with “on-screen links to electronic documents reserved for the home page ‘owner.’” Ex. 1025, 6:35–36, 7:34–36. Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that the combination of Guyot and Kikinis renders claim 3 obvious.

iv. *Claim 4*

Claim 4 depends from claim 3, and recites “wherein the user profile includes at least one link to one of the files in the user library.” Ex. 1001, 34:53–54.

Petitioner contends the combination of Guyot and Kikinis renders claim 4 obvious. 483 Pet. 5, 43. In particular, Petitioner points to Kikinis’s disclosure that the user’s home page includes “on-screen links to electronic documents.” *Id.* at 42 (quoting Ex. 1025, 7:35–8:1).

Patent Owner does not present argument concerning claim 4. As discussed above regarding claim 3, we agree with Petitioner that Kikinis’s individualized home page teaches or suggests a user profile. We further agree with Petitioner that the cited portion of Kikinis teaches or suggests links included with a user profile because one of ordinary skill in the art would have understood that the links displayed on the home page would be part of a user profile, given that the “on-screen links to electronic documents [are] reserved for the home page ‘owner.’” Ex. 1025, 7:35–36.

Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that the combination of Guyot and Kikinis renders claim 4 obvious.

v. *Claim 5*

Claim 5 depends from claim 1, and recites the following limitations:

wherein the transferring step further comprises transferring software that, when run on the computer, displays graphical items representing user-selectable items, wherein each of the user-selectable items has an associated link to an information resource accessible to the computer over the network, such that

selection by the user of one of the user-selectable items permits access to the information resource identified by the link associated with the selected user-selectable item.

Ex. 1001, 34:55–63.

Petitioner contends that Guyot anticipates claim 5. 482 Pet. 5, 40–41. Specifically, Petitioner identifies Guyot’s advertising window 530 as displaying graphical items representing user-selectable items, for example, “clickable graphical Internet link 580.” *Id.* at 41 (citing Ex. 1041, 5:52–61; Houh Decl. ¶¶ 133–134). Petitioner asserts that because Guyot discloses fetching a document when a subscriber selects Internet link 580, “the user-selectable item (Internet link 580) has *an associated link*, such that selecting it *permits access to the information resource* (the document stored on the Internet site) *that is associated with Internet link 580.*” *Id.* (citing Ex. 1041, 5:58–61; Houh Decl. ¶¶ 133–134). Patent Owner does not present argument concerning claim 5. *See* PO Resp.; Sur-reply.

We agree with Petitioner that Guyot’s advertising window 530, which is part of the client application that meets the limitation of software transferred to the user computer, as discussed above with respect to claim 1 displays graphical items representing user-selectable items.<sup>15</sup> In particular, Figure 4A of Guyot shows Internet link 580 depicted as a graphical element, and Guyot describes Internet link 580 as being selectable by a subscriber. *Id.* at 5:56–58. Further, as Petitioner argues, and we agree, Internet link 580

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<sup>15</sup> *See* Ex. 1041, 1:58–60 (“The system and method of this invention provide a ‘client’ application that runs on a subscriber’s computer.”), 2:1–4 (“The client application displays the downloaded advertisements on the subscriber’s computer, preferably in an advertising ‘window . . . .’”).

is associated with a link to an information resource accessible to the subscriber computer and that permits access to the resource (*see* 482 Pet. 41), by virtue of Guyot’s description that, upon selection by a subscriber, “processor 310 retrieves or ‘fetches’ the document associated with the Internet link 580 from the Internet site on which the document is stored” (Ex. 1041, 5:58–61). Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that Guyot anticipates claim 5.

vi. *Claim 6*

Claim 6 depends from claim 1, and adds the following limitations: further comprising the steps of:

- (a) obtaining advertiser registration information;
- (b) receiving advertising material associated with the advertiser;
- (c) obtaining from the advertiser information used in combination with user demographic data to provide reactive targeting of the advertising material to one or more users over the network;
- (d) sending the advertising material to the computer over the network for purposes of presentation to the user as informational data selected by a program module;
- (e) providing information to the advertiser concerning the sent advertising material; and
- (f) carrying out a financial transaction with the advertiser related to the sent advertising material.

Ex. 1001, 34:64–35:11.

Petitioner contends that Guyot anticipates claim 6. 482 Pet. 5, 43–48. Specifically, Petitioner points to Guyot’s “Advertiser Data” stored in

database 220, which includes “the identification of the advertiser that provided the advertisement,” as disclosing step (a) of claim 6, which recites “obtaining advertiser registration information.” *Id.* at 43 (citing Ex. 1041, 3:66–4:14; Houh Decl. ¶¶ 135–136). Petitioner points to disclosure in Guyot describing both the “Advertiser Data” and “Advertisement Data,” also stored in database 220, as disclosing step (b) of claim 6, which recites “receiving advertising material associated with the advertiser.” *See id.* at 44 (citing Ex. 1041, 3:66–4:14; Houh Decl. ¶¶ 137–140).

For step (c), Petitioner points to Guyot’s description of data including “the time frame during which the advertisement should be displayed on the subscriber system 300, the profile of the subscriber that the advertisement should be targeted to,” etc.,<sup>16</sup> as well as to Guyot’s subscriber’s personal profile as the claimed “information [obtained from the advertiser] used in combination with user demographic data.” *Id.* at 44–45 (quoting Ex. 1041, 4:1–14) (citing Ex. 1041, 1:60–65; Houh Decl. ¶¶ 142–143). Petitioner asserts that Guyot uses this combination of data “to provide reactive targeting of the advertising material to one or more users over the network,” as recited in step (c) of claim 6. *Id.* at 45 (citing Houh Decl. ¶ 144) (emphasis omitted). Specifically, Petitioner contends that Guyot discloses, among other things, “targeting based on the subscriber’s personal profile,”

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<sup>16</sup> The Petition misidentifies this data as “Advertiser Data” (*see* 482 Pet. 44–45), where Guyot labels this data as “Advertisement Data,” which is distinct from the “Advertiser Data” (*see* Ex. 1041, 3:66–4:14). We deem this to be harmless error, however, as the Petition specifically quotes the data intended to be relied upon for this limitation. *See* 482 Pet. 44–45.



and “targeting based on the subscriber’s Internet browsing history.” *Id.* (citing Ex. 1041, 1:60–65, 2:36–41, 3:61–65, 4:19–23).

Petitioner asserts, with respect to step (d), that Guyot discloses the recited limitation of “sending the advertising material to the computer over the network for purposes of presentation to the user as informational data selected by a program module,” based on Guyot’s server sending advertisements when the client application connects to the server, and based on Guyot’s control system choosing and displaying an advertisement. *Id.* at 47 (citing Ex. 1041, 1:60–65, 2:29–35, 3:23–30, 5:18–27, 7:57–65; Houh Decl. ¶¶ 146–147).

For step (e), which recites “providing information to the advertiser concerning the sent advertising material,” Petitioner points to Guyot’s disclosure that “advertisers are ‘supplied with information’ such as ‘the number of times each advertisement was viewed.’” *Id.* at 47–48 (quoting Ex. 1041, 10:16–22) (citing Houh Decl. ¶ 149). And for step (f), which recites “carrying out a financial transaction with the advertiser related to the sent advertising material,” Petitioner points to Guyot’s disclosure that “each advertiser is billed based on the information transmitted to that advertiser.” *Id.* at 48 (quoting Ex. 1041, 10:23–29) (citing Houh Decl. ¶ 151).

Patent Owner does not present argument concerning claim 6. *See* PO Resp.; Sur-reply. We agree with Petitioner and find that Petitioner’s cited portions of Guyot highlighted above disclose every limitation of claim 6. Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that Guyot anticipates claim 6.

vii. *Claim 7*

Claim 7 depends from claim 6, and recites “wherein step (b) further comprises receiving from the advertiser one or more criteria used in selecting advertising material to be presented to the user.”

Petitioner contends that Guyot anticipates claim 7. 482 Pet. 5, 49. In particular, Petitioner points to Guyot’s description of Advertisement Data that includes “the profile of the subscriber that the advertisement should be targeted to.”<sup>17</sup> *Id.* (quoting Ex. 1041, 3:66–4:14) (citing Houh Decl. ¶¶ 152–154).

Patent Owner does not present argument concerning claim 7. *See* PO Resp.; Sur-reply. We agree with Petitioner and find that Guyot’s subscriber profile for a particular advertisement discloses “criteria used in selecting advertising material to be presented to the user” because Guyot’s system uses this information to target the advertisement to specific subscribers. Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that Guyot anticipates claim 7.

viii. *Claim 8*

Claim 8 depends from claim 6, and recites “wherein step (c) further comprises providing a keyword that is associated with the advertising material and is used to provide reactive targeting of the advertising material to one or more users.” Petitioner contends the combination of Guyot and

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<sup>17</sup> As with claim 6, the Petition also misidentifies this data here as “Advertiser Data,” rather than “Advertisement Data.” *See* 482 Pet. 49. As mentioned in the footnote above, however, we find this to be harmless error.

Lazarus renders claim 8 obvious. 482 Pet. 5, 58–59. In particular, Petitioner contends that Lazarus teaches selecting an ad for display, where the advertisement is manually associated with a keyword corresponding to an observed user behavior, in accordance with claim 8. *Id.* at 58 (citing Ex. 1019, 3:30–35; Houh Decl. ¶¶ 186–187).<sup>18</sup> Petitioner further argues that it would have been obvious to incorporate keyword-based advertising in Guyot’s system because a person of ordinary skill in the art would have recognized the desirability of that advertising technique. *Id.* at 59 (citing Ex. 1011, 3; Houh Decl. ¶ 189).

Patent Owner does not present argument concerning claim 8. *See* PO Resp.; Sur-reply. We agree with Petitioner that Lazarus supplies the claim 8 limitation of “providing a keyword that is associated with the advertising material and is used to provide reactive targeting of the advertising material to one or more users,” based upon the Petitioner’s cited portion of Lazarus. *See id.* at 59. We further determine that Petitioner provides persuasive and reasonable rationale for combining Lazarus with Guyot supported by evidence suggesting the “desirability of keyword-based advertising based on contemporaneous research, like the Gallagher paper.” Houh Decl. ¶ 189 (citing Ex. 1011, 3). Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that the combination of Guyot and Lazarus renders claim 8 obvious.

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<sup>18</sup> The Petitioner cites to “Ex-1019, 2:30-35,” but this is a clear typographical error, as the disclosure relied upon is found in column 3 of Lazarus. *See* 482 Pet. 58; Ex. 1019, 3:30–35.

ix. *Claim 9*

Claim 9 depends from claim 6, and recites “wherein the computer comprises a mobile device and wherein step (d) further comprises sending the advertising material wirelessly to the mobile device over the network.” Petitioner contends that the combination of Guyot and Angles renders claim 9 obvious. 482 Pet. 5, 60–61. In particular, Petitioner contends that Angles teaches a consumer computer that includes a personal digital assistant or an interactive wireless communication device, and teaches sending advertising material wirelessly. *Id.* at 60 (citing Ex. 1006, 9:29–34; 10:33–38). Petitioner also argues that it would have been obvious for a person of ordinary skill in the art to combine the teachings of Angles with Guyot because it would have been advantageous to target advertisements to mobile device users and because Guyot expressly suggests that its client device is not limited to any particular device. *Id.* at 60–61 (citing Ex. 1041, 11:3–15, Houh Decl. ¶¶ 196–197).

Patent Owner does not present argument concerning claim 9. *See* PO Resp.; Sur-reply. We agree with Petitioner that Angles supplies the claim 9 limitations of “a mobile device” and “sending the advertising material wirelessly to the mobile device over the network,” based upon the Petitioner’s cited portions of Angles. *See id.* at 60. We further determine that Petitioner provides a persuasive and reasonable rationale for combining Angles with Guyot, namely, that it would have been advantageous to substitute a known mobile device for the client device in Guyot’s system and a wireless network for a wired network. Houh Decl. ¶ 197. Accordingly,

we determine that Petitioner has demonstrated by a preponderance of the evidence that the combination of Guyot and Angles renders claim 9 obvious.

x. *Claim 10*

Claim 10 depends from claim 1, and adds the following limitations:  
further comprising the steps of:

- (a) receiving user demographic information at an advertising and data management (ADM) server(s), wherein the user demographic information is received from the computer using a digital network protocol;
- (b) storing advertisements associated with advertisers on the ADM server(s);
- (c) sending a number of the advertisements to the computer using a digital network protocol;
- (d) receiving user input entered at the computer via a program module; and
- (e) selecting one of the advertisements based on the user demographic information, the user input, or both.

Ex. 1001, 35:24–36.

Petitioner contends that Guyot anticipates claim 10. 482 Pet. 5, 49–54. Petitioner points to Guyot’s server as disclosing the claimed “advertising and data management (ADM) server(s),” as recited in step (a) of claim 10. *Id.* at 49 (citing Ex. 1041, 1:60–63; Houh Decl. ¶ 157). Petitioner further identifies Guyot’s description of a subscriber’s personal profile and subscriber statistics, which Petitioner asserts are received by server 200 via the Internet and stored in database 220 (*id.* at 49–50 (citing Ex. 1041, 3:51–67, 4:15–23, 11:29–34, Figs. 2, 3; Houh Decl. ¶¶ 158–159)), as disclosing the claimed “user demographic information” received at the

ADM “from the computer using a digital network protocol,” as also recited in step (a).

For step (b), which recites “storing advertisements associated with advertisers on the ADM server(s),” Petitioner points to Guyot’s disclosure of “memory 220 that stores an advertisement database,” where “‘for each advertisement, the identification of the advertiser that provided the advertisement’ is provided.” *Id.* at 52 (quoting Ex. 1041, 3:43–44, 4:1–4 and citing Houh Decl. ¶¶ 160–162). For step (c), which recites “sending a number of the advertisements to the computer using a digital network protocol,” Petitioner relies on the same disclosure in Guyot as identified for the “providing the selected advertisement” limitation in claim 1 pertaining to display of an advertisement on a subscriber’s computer, as well as that identified for claim 10, step (a) pertaining to use of the Internet. *Id.* at 52–53 (citing Houh Decl. ¶¶ 163–165).

Petitioner points to Guyot’s disclosure of monitoring the activity of input devices such as a keyboard or a mouse for the step (d) limitation of “receiving user input entered at the computer via a program module.” *Id.* at 53 (citing Ex. 1041, 5:6–10). And for step (e), which recites “selecting one of the advertisements based on the user demographic information, the user input, or both,” Petitioner points to Guyot’s disclosure of advertisements “targeted to each individual subscriber, based on a personal profile provided by that subscriber.” *Id.* at 54 (quoting Ex. 1041, 1:60–65) (citing Houh Decl. ¶ 170).

Patent Owner does not present argument concerning claim 10. *See* PO Resp.; Sur-reply. We agree with Petitioner and find that Petitioner’s

cited portions of Guyot highlighted above disclose every limitation of claim 10. Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that Guyot anticipates claim 10.

xi. *Claim 11*

Claim 11 depends from claim 10, and recites “wherein step (e) further comprises selecting the one or more advertisements using one or more program modules.” Ex. 1001, 35:37–39.

Petitioner contends that Guyot anticipates claim 11, namely, by disclosing “computer software . . . that targets advertisements to each individual subscriber based on a personal profile provided by that subscriber.” 482 Pet. 54–55 (citing Ex. 1041, 1:60–65, Houh Decl. ¶ 172).

Patent Owner does not present argument concerning claim 11. *See* PO Resp.; Sur-reply. We agree with Petitioner and find that Guyot discloses “selecting the one or more advertisements using one or more program modules,” as claimed, because Guyot’s system for targeting advertisements to specific subscribers is implemented using processors “preferably implemented on a programmed general purpose computer.” Ex. 1041, 11:3–5. Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that Guyot anticipates claim 11.

xii. *Claim 12*

Claim 12 depends from claim 10, and recites “wherein steps (d) and (e) are carried out at a server remote from the computer and wherein step (c) further comprises sending the selected advertisement to the computer after step (e).” Ex. 1001, 35:40–43.

Petitioner contends Guyot anticipates claim 12. 482 Pet. 5, 55–56. First, Petitioner asserts that Guyot’s “database 220, where the subscriber’s personal profile is stored and updated, and which targets each individual subscriber, is located on the server 200, which is remote from the subscriber systems 300,” thus disclosing the “server remote from the computer” limitation in claim 12. *Id.* at 55 (citing Ex. 1041 3:43–65, Fig. 3; Houh Decl. ¶ 174). Second, Petitioner asserts that Guyot discloses “*selecting* an advertisement (*see* limitations [10.5] and [1.4]) and then, subsequently, *sending* the advertisement to a user computer (*see* limitations [10.3] and [1.6]),” with respect to the claim 12 language “wherein step (c) further comprises sending the selecting advertisement to the computer after step (e),” which refers to steps in claim 10. *Id.* at 56 (citing Houh Decl. ¶ 176). Here, Dr. Houh’s testimony does not cite any evidence, but rather merely repeats Petitioner’s assertion in the Petition. *See* Houh Decl. ¶ 176. Nevertheless, we understand and agree that the arguments and evidence provided for the limitations in claim 1 (*see* 482 Pet. 56)—namely, the “selecting an advertisement” and “providing the selected advertisement” limitations, which we have addressed above and have found that Guyot discloses—are persuasive and show that Guyot also anticipates this claim. Thus, we find that Guyot discloses sending an advertisement after selecting the advertisement as in claim 12.

Patent Owner does not present argument concerning claim 12. *See* PO Resp.; Sur-reply. We agree with Petitioner that Guyot teaches the limitations of claim 12 based on Petitioner’s cited portion of Guyot and our prior findings with respect to claim 1. Accordingly, we determine that



Petitioner has demonstrated by a preponderance of the evidence that Guyot anticipates claim 12.

xiii. *Claim 13*

Claim 13 depends from claim 1, and recites the following limitations:

wherein the computer comprises a processing device, display, and a data storage device storing the at least a portion of the software as program modules including first and second program modules;

said first program module presenting, on said display upon execution by said processing device, a graphical user interface (GUI) having a number of regions on said display including a first region containing a number of user-selectable items and a second region comprising an information display region;

said second program module, upon execution by said processing device, being operable to obtain one or more display objects at said computer, said display object(s) being received at said computer via a wireless communication path using a digital network protocol;

wherein, said first program module is operable to access an information resource, the display object(s) being presented on the display in the information display region of the graphical user interface.

Ex. 1001, 35:44–62.

Petitioner contends the combination of Guyot, Apte, and Angles renders claim 13 obvious. 483 Pet. 6, 43–49. In particular, Petitioner points to Apte’s browser as disclosing the claimed “first program module presenting, on said display . . . a graphical user interface (GUI) having a number of regions.” *Id.* at 43–47 (citing Ex. 1008, 5:11–13, 5:60–65, Fig. 5;

Houh Decl. ¶¶ 238–241, 245–247). Apte’s Figure 5, reproduced below, shows the browser area, annotated by Petitioner.

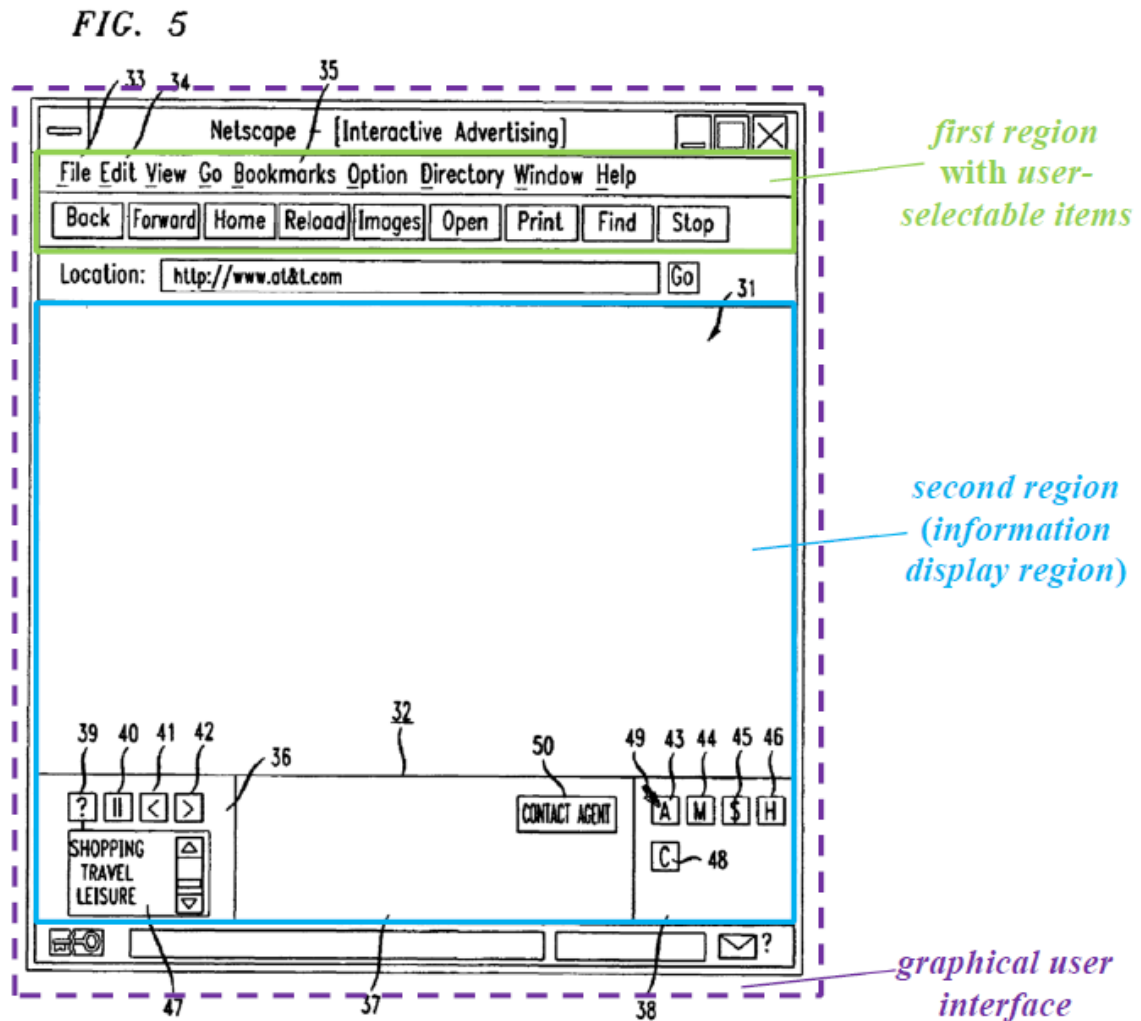


Figure 5 of Apte above, shows annotations by Petitioner of a graphical user interface (outlined in purple) identifying a “first region” including various controls (delineated in green), and a “second region” that displays information (delineated in blue). *Id.* at 45–47 (citing Ex. 1008, 5:60–65, Fig. 5; Houh Decl. ¶¶ 245–247). Petitioner further points to Apte’s advertising software as disclosing the claimed “second program module . . .

being operable to obtain one or more display objects.” *Id.* at 47–48 (citing Ex. 1008, 5:30–34, 5:52–6:24; Houh Decl. ¶¶ 251–253). Petitioner asserts that Apte’s advertisements are presented in the advertiser area of the browser, within the “second region” of Apte that Petitioner identifies. *Id.* at 48–49 (citing Ex. 1008, 5:29–34, 5:60–67; Houh Decl. ¶¶ 259–262). Petitioner points to Guyot and Angles for teaching reception of display objects “via a wireless communication path using a digital network protocol,” as claimed. *Id.* at 48 (citing Ex. 1006, 9:29–34; Ex. 1041, 3:13–22; Houh Decl. ¶¶ 254–256 (testifying that a wireless communication path was known and an obvious variation of a wired communication path and that the combination if Guyot and Apte’s teachings would be no more than a combination of known methods in a known manner to yield predictable results). Petitioner contends that combining Apte with Guyot by “implementing Guyot’s software as two or more program modules would have been no more than an exercise in rearranging the various parts of Guyot’s software, which would have not modified its operation and would have therefore been obvious as a matter of design choice.” *Id.* at 44 (citing Houh Decl. ¶ 242).

Patent Owner does not present argument concerning claim 13. We agree with Petitioner that the combination of Guyot, Apte, and Angles teaches every limitation of claim 13, based upon Petitioner’s cited portions of the references as shown above. Further, we find that Petitioner has provided a sufficient rationale for combining the references, relying on a rearrangement of parts theory. Specifically, Guyot already discloses presenting advertising in an advertising window of a display (*see, e.g.,*

Ex. 1041, 2:1–6 (“The client application displays the downloaded advertisements on the subscriber’s computer, preferably in an advertising ‘window’ that is continuously displayed . . . even if other applications are running concurrently . . .”), and we see no evidence in the record to suggest that rearranging Guyot’s software to obtain advertisements and provide a window to display advertisements with distinct program modules based on Apte would change Guyot’s functionality. *See Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007) (relying on the lack of evidence that the combination was uniquely challenging or difficult for one of skill in the art).

In addition, we find it would have been obvious to combine Angles with Guyot and Apte because, as Dr. Houh testified, this would “be no more than the combination of prior art elements according to known methods to yield the predictable result of the claimed receiving of display object(s) at a computer using a wireless communications path using an industry standard digital network protocol (i.e., TCP/IP).” Houh Decl. ¶ 256; *see also KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007) (“[A] court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions.”). Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that the combination of Guyot, Apte, and Angles renders claim 13 obvious.

xiv. *Claim 14*

Claim 14 depends from claim 13, and recites “wherein said first program module is operable to access the information resource in response to user selection of one of the user-selectable items.” Ex. 1001, 35:63–65.

Petitioner contends that the combination of Guyot, Apte, and Angles renders claim 14 obvious. 483 Pet. 6, 49. Petitioner points to Apte’s “bookmarks feature [that] causes retrieval of a web page (an *information resource*) upon selection of a bookmark by a user.” *Id.* at 49 (citing Ex. 1008, 5:60–62; Ex. 1021, 1:26–35; Houh Decl. ¶¶ 265–267).

Patent Owner does not present argument concerning claim 14. We agree with Petitioner that Apte’s bookmarks feature discloses the claimed functionality “to access the information resource in response to user selection of one of the user-selectable items” because, as one of ordinary skill in the art would have known, selecting a bookmark in a browser retrieves a web page, i.e., an “information resource.” *See* Houh Decl. ¶ 266 (citing Ex. 1021, 1:26–35). Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that the combination of Guyot, Apte, and Angles renders claim 14 obvious.

xv. *Claim 15*

Claim 15 depends from claim 13, and recites “wherein said data storage device is a non-volatile data storage device.” Ex. 1001, 35:66–67.

Petitioner contends that the combination of Guyot, Apte, and Angles renders claim 15 obvious. 483 Pet. 6, 49–50. Petitioner points to Apte’s client computer, which includes a hard disk drive, for teaching this limitation. *Id.* at 49 (citing Ex. 1008, 1:33–42; Ex. 1001, 4:47–62; Houh

Decl. ¶¶ 268–270). Patent Owner does not present argument concerning claim 15. We agree with Petitioner that a hard disk drive meets the claim 15 limitation of “a non-volatile storage device.” *See* Ex. 1001, 4:47–62 (defining “non-volatile storage device” as including “a hard disk”). Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that the combination of Guyot, Apte, and Angles renders claim 15 obvious.

xvi. *Claim 16*

Claim 16 depends from claim 13, and recites “wherein said first program module is operable to access the information resource over the wireless communication path.” Ex. 1001, 36:1–3.

Petitioner contends that the combination of Guyot, Apte, and Angles renders claim 16 obvious. 483 Pet. 6, 50. Petitioner points to Apte’s disclosure that sites are accessed through a network, and Angles’ disclosure of wireless communication paths as collectively teaching this limitation. *Id.* at 50 (citing Ex. 1008, 1:33–38; Ex. 1006, 9:29–34; Houh Decl. ¶¶ 272–274). Patent Owner does not present argument concerning claim 16. We agree with Petitioner’s contention for claim 16, based on Petitioner’s cited portions of Apte and Angles. Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that the combination of Guyot, Apte, and Angles renders claim 16 obvious.

xvii. *Claim 17*

Claim 17 depends from claim 13, and recites “wherein the computer comprises a mobile device.” Ex. 1001, 36:4–5.

Petitioner contends that the combination of Guyot, Apte, and Angles renders claim 17 obvious. 483 Pet. 6, 50–51. Petitioner identifies Angles’ consumer computer as being “a personal digital assistant, an interactive wireless communication device or the like,” i.e., a “mobile device,” as claimed. *Id.* at 50 (quoting Ex. 1006, 10:33–38) (citing Houh Decl. ¶ 275). Further, Petitioner asserts that implementing Guyot’s system with a mobile device would be consistent with Guyot’s description of using “a wide variety of devices, such as a ‘programmed general purpose computer.’” *Id.* (citing Ex. 1041, 11:3–15; Houh Decl. ¶¶ 196–197). Patent Owner does not present argument concerning claim 17. We see no evidence in the record that rebuts Dr. Houh’s opinion that “the system of Guyot could be carried out on a mobile device with a wireless card because such mobile devices were commonplace at the relevant time, as evidenced by Angles’ express disclosure.” Houh Decl. ¶ 196. Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that the combination of Guyot, Apte, and Angles renders claim 17 obvious.

xviii. *Claim 18*

Claim 18 depends from claim 17, and recites “wherein said first and second program modules together comprise an application stored on said mobile device.” Ex. 1001, 36:6–8.

Petitioner contends that the combination of Guyot, Apte, and Angles renders claim 18 obvious. 483 Pet. 6, 51. Petitioner points to Apte’s advertising software acting as an overlay to the browser. *Id.* at 51 (citing Ex. 1008, 5:11–13; Houh Decl. ¶ 277). Patent Owner does not present argument concerning claim 18. We agree with Petitioner that Apte’s

advertising software and browser “together comprise an application,” because there is a sufficient amount of interworking between them, specifically, “[a]dvertising software . . . is downloaded to the client computer 52 and executes to act as an overlay to the browser.” Ex. 1008, 5:11–13; *see also id.* at 5:31–34 (“[T]he browser retains its initial functionality to browse hypertext files, and the advertising software appropriates a part of the display screen of the client computer 52.”). Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that the combination of Guyot, Apte, and Angles renders claim 18 obvious.

xix. *Claim 19*

Claim 19 depends from claim 18, and recites “wherein the data storage device includes an update program module containing programming used to update third party software stored on the data storage device.” Ex. 1001, 36:9–12.

Petitioner contends that the combination of Guyot, Apte, Angles, and Cheng renders claim 19 obvious. 483 Pet. 6, 52–53. In particular, Petitioner contends that Cheng’s client application stored in the computer’s hard disk drive periodically connects over the network to the update database to determine, download, and install applicable software updates. *Id.* at 52 (citing Ex. 1014, Abstr., 3:25–63, 13:1–45, Fig. 9; Houh Decl. ¶¶ 282–284). According to Petitioner, it would have been obvious to modify Guyot in view of Cheng, where “Guyot discloses ‘an update program module’ used to update the user software,” so as to “also update third-party software, e.g., tracking software or browser software, when performing the client software



update of Guyot.” *Id.* at 53 (citing Ex. 1041, 8:29–49; Houh Decl. ¶¶ 285–286). In particular, Petitioner points to “an express motivation to combine its teachings: it ‘enables [] software updates to be continually maintained and verified for correctness, while alleviating both users and software vendors of a substantial burden [in] communicating each.’” *Id.* at 52 (citing Ex. 1014, 25:15–33) (alterations in original).

Patent Owner does not present argument concerning claim 19. We agree with Petitioner that the cited portions of Cheng teach the further recited limitation of claim 19, and that it would have been obvious to combine Cheng with Guyot for the reasons Petitioner provides. Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that the combination of Guyot, Apte, Angles, and Cheng renders claim 19 obvious.

xx. *Claim 20*

Claim 20 depends from claim 19, and recites “wherein one of the program modules stored on said data storage device is operable upon execution to access electronic copies of printed materials via the network or from a non-volatile storage device located at the mobile device.” Ex. 1001, 36:13–17.

Petitioner contends that the combination of Guyot, Apte, Angles, and Cheng renders claim 20 obvious. 483 Pet. 6, 53–54. Petitioner points to Apte’s browser that accesses news, and an ordinarily skilled artisan’s knowledge that “it was common for news websites to reproduce electronically content printed in a newspaper.” *Id.* at 53 (citing Ex. 1008, 2:9–11; Ex. 1024, 4; Ex. 1052, 6–8, 122–123; Houh Decl. ¶¶ 288–290).

Patent Owner does not present argument concerning claim 20. We agree with Petitioner that the relied upon portion of Apte, along with the knowledge of ordinary skill in the art, teaches using Apte's browser "to access electronic copies of printed materials," as claimed, in the combination of Guyot, Apte, Angles, and Cheng. Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that the combination of Guyot, Apte, Angles, and Cheng renders claim 20 obvious.

xxi. *Claim 21*

Claim 21 depends from claim 1, and recites "further comprising the step of receiving at least one digital file comprising third party software, music, a movie or an electronic copy of published printed material via the network and storing the digital file(s) in an electronic library." Ex. 1001, 36:19–23.

Petitioner contends that the combination of Guyot and Ellsworth renders claim 21 obvious. 483 Pet. 6, 55–56. In particular, Petitioner contends that Ellsworth, which details the features of service provider CompuServe, teaches a user uploading a file, such as a shareware program, to a library section where the user wants the file stored. *Id.* at 55 (citing Ex. 1026, 105, 107; Houh Decl. ¶¶ 295–296). Petitioner argues that it would have been obvious to combine the teachings of Ellsworth with Guyot because it was common for users to have Internet access through a service provider such as CompuServe, and it would be "no more than the combination of known prior elements requiring no modification to any of the known elements." *Id.* at 55–56 (citing Houh Decl. ¶ 297). According to Petitioner, this would enable a user to not only use a service provider's

“Internet access facility to browse Web pages and be provided advertisements,” as Guyot already teaches, but also to use other service provider functionality, “like uploading and storing files as taught by Ellsworth.” *Id.* at 56 (citing Houh Decl. ¶ 297).

Patent Owner does not present argument concerning claim 21. We are persuaded that Ellsworth teaches the limitations recited in claim 21 based on Petitioner’s cited portions, and that it would have been obvious to combine Ellsworth with Guyot for the reasons provided by Petitioner. Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that the combination of Guyot and Ellsworth renders claim 21 obvious.

xxii. *Claim 22*

Claim 22 depends from claim 21, and recites “further comprising the step of carrying out a monetary transaction and permitting access to the digital file(s) based on the monetary transaction.” Ex. 1001, 36:24–26.

Petitioner contends that the combination of Guyot and Ellsworth renders claim 22 obvious. 483 Pet. 6, 56–57. Specifically, Petitioner contends that “the user must provide payment for their CompuServe service before being able to access the service, and thus before being able to download digital files,” because “[a]s a prerequisite to accessing CompuServer, Ellsworth indicates that a user must choose a payment method,” such as MasterCard. *Id.* at 56–57 (citing Ex. 1026, 25, 103; Houh Decl. ¶¶ 300–301).

Patent Owner does not present argument concerning claim 22. We are persuaded that Ellsworth teaches the further recited limitation of claim 22

based on Petitioner’s cited portions. Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that the combination of Guyot and Ellsworth renders claim 22 obvious.

xxiii. *Claim 23*

Claim 23 depends from claim 21, and recites “further comprising the step of carrying out a monetary transaction and permitting storage of the digital file(s) in the electronic library based on the monetary transaction.” Ex. 1001, 36:27–30.

Petitioner contends that the combination of Guyot and Ellsworth renders claim 23 obvious. 483 Pet. 6, 57. Specifically, Petitioner contends, as with claim 22, that “Ellsworth teaches that the user must provide payment to use CompuServe, including the service’s functionality of permitting users to upload software.” *Id.* at 57 (citing Houh Decl. ¶ 304, which refers to testimony at ¶¶ 300–301 (for claim 22)); *see also* Ex. 1026, 103 (describing “Uploading and downloading files” using CompuServe), 105 (“To upload a file, click on the Contribute icon in the ribbon”).

Patent Owner does not present argument concerning claim 23. We are persuaded that Ellsworth teaches the further recited limitation of claim 23 based on Petitioner’s reliance on similar evidence and reasoning as provided for claim 22. Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that the combination of Guyot and Ellsworth renders claim 23 obvious.

xxiv. *Claim 24*

Claim 24 depends from claim 21, and recites “further comprising the step of distributing digital copies of the digital file(s) from the electronic library.” Ex. 1001, 36:31–33.

Petitioner contends that the combination of Guyot and Ellsworth renders claim 24 obvious. 483 Pet. 6, 57. Specifically, Petitioner contends that “[a]fter a file is uploaded, Ellsworth explains that it is ‘made available to the other forum members,’” and that Ellsworth further “describes downloading files from libraries.” *Id.* at 57 (quoting Ex. 1026, 107) (citing Ex. 1026, 103–107; Houh Decl. ¶¶ 307–308).

Patent Owner does not present argument concerning claim 24. We are persuaded that Ellsworth teaches the limitations of claim 24 based on Petitioner’s cited portions. Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that the combination of Guyot and Ellsworth renders claim 24 obvious.

xxv. *Claim 25*

Claim 25 recites “providing reactive targeting of advertising to the user in real time by selecting and presenting an advertisement based at least in part on user interaction with the computer.” Ex. 1001, 36:35–37.

Petitioner presents arguments and evidence that claim 25, which depends directly from claim 1, would have been obvious over Guyot, alone. 482 Pet. 61–63. In particular, Petitioner argues that Guyot teaches reactive targeting of advertising in real time by selecting and displaying advertisements based on user input through, “e.g., a keyboard or a mouse, to determine when the

subscriber is most likely to be watching the display.” *Id.* at 61–62 (citing 2:36–41, 3:61–65, 4:19–23, 5:6–17; Houh Decl. ¶¶ 200–201).

Further, Petitioner argues that, to the extent claim 25 requires real time targeted advertising while the user is browsing the Internet, Guyot in view of the knowledge of a person of ordinary skill in the art, teaches this. *Id.* at 62–62 (citing Ex. 1041, 5:45–67; Houh Decl. ¶¶ 202–203). In support of this allegation, Dr. Houh testified that “Guyot discloses an ‘interactive’ embodiment, where the user, while connected to the Internet, selects an ‘Internet link’ within the advertisement window to fetch additional online content, which a POSITA would understand to refer to clicking a link to a website with additional advertising material.” Houh Decl. ¶ 202 (citing Ex. 1041, 5:45–67).

Patent Owner argues that Dr. Houh’s reliance on Guyot’s disclosure of monitoring activity of input devices and scheduling the display of advertisements based on this activity “does not disclose the real-time selection or display of a reactive advertisement based on a user’s interaction with the computer.” PO Resp. 51 (citing Zatkovich Decl. ¶ 122). Specifically, Patent Owner argues that Guyot only schedules advertising “at some point in the future,” rather than in real time. *Id.* Further, Patent Owner argues that Guyot’s “advertisements are preselected and the user’s interaction with the computer is not used to select an advertisement.” *Id.* at 52.

Patent Owner also argues that Dr. Houh’s opinion that “clicking ‘a link to a website with additional advertising material’ would teach real time targeting of advertising based on a user’s interaction with a computer” is

incorrect. *Id.* at 53 (quoting Houh Decl. ¶ 202). In particular, Patent Owner argues that clicking on a link for advertising material does not disclose reactive targeting of advertising in real time, because the advertising material was associated with the link prior to the advertisement being selected. *Id.* Moreover, Patent Owner argues, the advertising material associated with the link is not selected based on “information associated with the unique identifier,” as required by claim 1, from which claim 25 depends. *Id.*

In Reply, Petitioner argues that Patent Owner improperly reads limitations into claim 25, namely, by requiring that the claimed “selecting and presenting” of an advertisement be done in real time. Reply 23 (citing PO Resp. 51–53). Petitioner asserts that Guyot sufficiently meets the language in claim 25 by displaying an advertisement responsive to user input, based on monitoring input devices. *See id.* at 23–24 (citing Supp. Houh Decl. ¶¶ 95–98). Petitioner also argues that Patent Owner “attempts to disclaim ‘building a set of advertisements for later display’” (*id.* at 24 (citing PO Resp at 49–50)), in contrast to what is described in the Specification regarding “downloading ‘**a plurality of sets** of locally stored banners’” (*id.* (citing Ex. 1001, 8:45–49, 18:41–47)).

In Sur-reply, Patent Owner reiterates its arguments in the Patent Owner Response, and asserts that these arguments stand unrebutted by Petitioner’s Reply. *See* Sur-reply 22–23.

The parties’ dispute over claim 25 turns on the proper construction of claim 25, which is detailed above in Section V.A.4 and which requires that the selecting and presenting of an advertisement be in real time, based *on*

*current user interaction*. This excludes selecting and presenting an advertisement based on *past user interactions*. Based on this construction, we determine that Guyot does not render claim 25 obvious, for the reasons discussed below.

First, we disagree with Petitioner that Guyot teaches or suggests that monitoring activity of input devices such as a keyboard and a mouse (*see* Ex. 1041, 5:6–10; 5:53–54) is a basis for a real time selection and presentation of advertising, as required by claim 25. Guyot discloses that the monitoring of input devices is used “to schedule the display of advertisements” (*id.* at 5:10–11), not to select advertisements in real time based on current user interaction. Rather, in Guyot, “subscriber system 300 periodically access[es] the server 200 to download advertisements that are specifically targeted to the subscriber based on the subscriber’s personal profile stored on the server 200.” *Id.* at 3:25–28. Processor 310 in subscriber system 300 “maintains a ‘context’ that includes a ‘Subscriber Context,’” where “[t]he Subscriber Context preferably includes the queue of the advertisements to be displayed.” *Id.* at 4:28–35. For each advertisement, “Subscriber Context” stores data related to when and how often the advertisement should be displayed, such as “Ad Hour Frames,” “Ad Day Frames,” “Ad Frequency,” etc. *Id.* at 4:36–5:5.

Accordingly, although Guyot discloses a control system determining, based upon monitored activity of input devices, that “screen saver mode has not been activated,” the control system merely uses this information to “choose[] an advertisement to display *from the advertisement queue* in the Subscriber Context” and then “display[] the selected advertisement for a



predetermined period of time.” *Id.* at 7:49–62 (emphasis added). In other words, the advertisements have been already selected based on user demographic information stored in the profile—not on current activity of the user or its current interaction with the computer. When Guyot describes “choosing” and “selecting” advertisements, those actions are not performed in connection with “reactive targeting of advertising to the user in real time,” as recited in claim 25. Rather, as stated above, Guyot’s targeting of advertisements is performed based on a subscriber profile built upon prior user interaction, such as “answers to a questionnaire” and “Internet sites that the subscriber has accessed over a predetermined period of time.” *Id.* at 3:61–63, 4:18–23. These advertisements are then periodically downloaded before and without relationship to any current user interaction through a mouse or keyboard. *See id.* at 3:25–28. Therefore, when Guyot’s control system “chooses an advertisement” and “displays the selected advertisement,” it is not a selection and presentation performed in real time to provide reactive targeted advertising. Thus, we find that Guyot’s selection of targeted advertisements is performed based on past user activity, based on a subscriber profile—not on current user activity, i.e., in real time.

Furthermore, although Guyot uses current user interaction—i.e., keyboard or mouse activity—to determine that some advertisement should be displayed (*see id.* at 7:49–62), that advertisement is selected from the queue of advertisements already downloaded to the subscriber system. We see no disclosure in Guyot, and Petitioner has not pointed us to any, that teaches or suggests the required user interaction to provide “reactive targeting of advertising to the user in real time,” as recited in claim 25.

Instead, Petitioner relies on a proposed interpretation of the claim that we have rejected: that “‘selecting and presenting’ is not required to be performed in ‘real time’ despite BE’s pleas.” Reply 23.

Moreover, we are not persuaded by Petitioner’s argument that requiring real-time selection and presentation of advertisements amounts to an improper disclaimer of the described embodiment that includes “building a set of advertisements for later display to the user.” *Id.*; Ex. 1001, 20:20–21. Rather than repeat our analysis of the claim-25 language here, we point out that the Specification of the ’440 patent makes a clear distinction between the downloading of advertisements based on a user’s demographic information, and the reactive targeting of advertisements based on user interaction with a computer—the so-called “two-tiered approach to targeted advertising” (Ex. 1001, 20:1)—and claim 25 is directed to the latter embodiment, as discussed above in Section V.A.4. We thus determine that Guyot’s disclosure of displaying advertisements based on monitoring of activity of user input devices fails to teach or suggest the claimed “reactive targeting of advertising to the user in real time by selecting and presenting an advertisement based at least in part on user interaction with the computer.”

Second, we disagree with Petitioner that Guyot teaches or suggests a user’s clicking on Internet link 580 (Ex. 1041, 5:45–67) is a basis for a real time selection and presentation of advertising, as required by claim 25. Instead, we are persuaded by Patent Owner’s argument that fetching a document referenced by Internet link 580 is not a real time selection and presentation as recited in claim 25. *See* PO Resp. 53; Sur-reply 22–23. That

is, when a user clicks Internet link 580, no real time selection is made to provide “reactive targeting of advertising to the user in real time,” as in claim 25, because the fetched document was already “associated with the Internet link 580.” Ex. 1041, 5:60. In other words, the advertisement document that is displayed with the link had been selected already, before any user interaction. Thus, the targeting of the advertisement that includes Internet link 580 has been performed based on the subscriber profile, and prior to the user clicking the link.

Accordingly, we determine that Petitioner has not demonstrated by a preponderance of the evidence that Guyot renders claim 25 obvious.

xxvi. *Claim 26*

Claim 26 depends from claim 1, and recites “further comprising the step of presenting one or more display objects on the computer based at least in part of [sic] the user’s previous interaction with the computer.” Ex. 1001, 36:38–41.

Petitioner contends that Guyot anticipates claim 26, specifically, asserting that Guyot discloses “presenting advertisements (*display objects*) based on the following examples of a *user’s previous interaction with the computer*,” and listing keyboard or mouse activity, a subscriber’s answers to a questionnaire, and a subscriber’s Internet browsing history as such interaction examples. 482 Pet. 56 (citing Ex. 1041, 2:36–41, 3:61–65, 4:19–23, 5:12–17; Houh Decl. ¶ 178).

Patent Owner does not present argument concerning claim 26. *See* PO Resp.; Sur-reply. We agree with Petitioner that Guyot presents “one or more display objects” based on a “user’s previous interaction with the

computer,” as claimed, by targeting advertisements based on, for example, a subscriber’s personal profile, where the profile is defined partly by a subscriber’s prior accessing of Internet sites and a subscriber’s answering of a questionnaire. Ex. 1041, 2:36–41, 3:25–30, 3:61–65. Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that Guyot anticipates claim 26.

xxvii. *Claim 27*

Claim 27 depends from claim 1, and recites “further comprising the step of presenting one or more display objects on the computer based at least in part on the user’s current interaction with the computer.” Ex. 1001, 36:42–45.

Petitioner contends that Guyot anticipates claim 27. 482 Pet. 5, 57. Specifically, Petitioner points to Guyot’s disclosure of “presenting advertisements (*display objects*) based on keyboard or mouse activity to target advertising to the moment when the user is ‘most likely to be watching the display,’” as well as Guyot’s disclosure of fetching and displaying a document associated with Internet link 580 upon a subscriber clicking the link. *Id.* at 57 (citing Ex. 1041, 5:6–17, 5:54–61; Houh Decl. ¶¶ 180, 181).

Patent Owner does not present argument concerning claim 27. *See* PO Resp.; Sur-reply. We agree with Petitioner that Guyot presents “one or more display objects” based on a “user’s current interaction with the computer.” In particular, we note that claim 27 differs from claim 25, which we find not unpatentable as anticipated by Guyot as discussed above. Claim 27 does not require reactive targeting of advertising by selecting and

presenting an advertisement in real time, as recited in claim 25. Further, as claim 27 is not limited to presenting advertising, but recites more broadly presenting “display objects.” Claim 27 thus requires presenting a display object based on current interaction. Guyot’s fetching and displaying of a document based on clicking a link, for example, accomplishes such presentation based on current interaction. *See* Ex. 1041, 5:54–61. Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that Guyot anticipates claim 27.

xxviii. *Claim 28*

Claim 28 depends from claim 1, and recites “further comprising the step of downloading scripting software to a user’s computer which collects information concerning web site visitations by the user.” Ex. 1001, 36:46–49.

Petitioner contends that the combination of Guyot and Blumenau renders claim 28 obvious. 483 Pet. 6, 58–60. Petitioner points to Guyot’s disclosure of downloading software to a user’s computer for collecting information on the sites a user has visited, and relies on Blumenau for explicitly disclosing “scripting” software that collects such information. *Id.* at 58–59 (citing Ex. 1041, 2:37–43, 4:15–24, 8:38–50; Ex. 1030, 3:12–22; 4:28–48; Houh Decl. ¶¶ 315–317). Specifically, Petitioner identifies Blumenau’s disclosure that the Netscape Navigator® browser stores the URLs of accessed Web pages by using a JavaScript application. *Id.* (citing Ex. 1030, 3:12–22, 4:28–48). Petitioner argues that it would have been obvious to combine Blumenau with Guyot because it would have “merely been the simple substitution of one known element (Blumenau’s JavaScript

software that collects web site visitation information) for another (Guyot’s . . . software that collects web site visitation information)” with predictable results. *Id.* at 59 (citing Houh Decl. ¶ 318). Further, Dr. Houh opines that the functionality of JavaScript to collect web site visitation information was known in the art, as evidenced by Blumenau and that the substitution of Blumenau’s software for that of Guyot’s results in an alternative implementation of software that collects the same types of data disclosed in Guyot. Houh Decl. ¶ 318.

Patent Owner does not present argument concerning claim 28. We are persuaded that the combination of Guyot and Blumenau teaches the limitations recited in claim 28 based on Petitioner’s cited portions of the references, and that it would have been obvious to combine Blumenau with Guyot for the reason provided by Petitioner and as testified to by Dr. Houh. Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that the combination of Guyot and Blumenau renders claim 28 obvious.

xxix. *Claim 29*

Claim 29 depends from claim 28, and recites “further comprising the step of selecting advertising based at least in part on the collected information.” Ex. 1001, 36:50–52.

Petitioner contends that the combination of Guyot and Blumenau renders claim 29 obvious. 483 Pet. 6, 60. Specifically, Petitioner points to Guyot’s disclosure of using collected information for targeting advertisements to a user, as similarly relied upon for claim 1. *Id.* at 60

(citing Houh Decl. ¶ 321 (referring back to claim 28 and citing Ex. 1041, 2:37–43, 4:15–24, 8:38–50)).

Patent Owner does not present argument concerning claim 29. We are persuaded that Guyot teaches the limitation recited in claim 29 based on Petitioner’s reliance on similar evidence and reasoning concerning Guyot’s disclosure as provided for claim 1. Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that the combination of Guyot and Blumenau renders claim 29 obvious.

xxx. *Claim 30*

Claim 30 depends from claim 28, and recites “whereby the scripting software is JavaScript.” Ex. 1001, 36:53–54. Petitioner contends that the combination of Guyot and Blumenau renders claim 30 obvious. 483 Pet. 6, 60. In particular, Petitioner points to Blumenau’s disclosure of a JavaScript application. *Id.* at 60 (citing Houh Decl. ¶ 323; Ex. 1030, 4:28–48). Patent Owner does not present argument concerning claim 30. Blumenau teaches the claimed JavaScript limitation, as noted above regarding claim 28, and we thus determine that Petitioner has demonstrated by a preponderance of the evidence that the combination of Guyot and Blumenau renders claim 30 obvious.

xxxi. *Claims 31–34*

Claim 31 depends from claim 1, and recites “wherein at least one step of the method includes downloading scripting software to a user’s computer.” Ex. 1001, 36:55–57. Claim 32 depends from claim 31, and recites “wherein the scripting software is JavaScript.” *Id.* at 36:58–59.

Claim 33 depends from claim 1, and recites “wherein at least one step of the method includes downloading scripting software to a user’s computer which can aid in the targeting of advertising to the user.” *Id.* at 36:60–63. Claim 34 depends from claim 33, and recites “whereby the scripting software is JavaScript.” *Id.* at 36:64–65.

Petitioner contends that the combination of Guyot and Blumenau renders claims 31–34 obvious. 483 Pet. 6, 60–61. The “downloading scripting software” and JavaScript limitations recited in claims 31 through 34 recite further details of the “scripting software” recited in claim 28. For the same reasons presented by Petitioner with respect to claim 28 (such as *id.* at 58–59; Ex. 1030, 3:12–22, 4:28–48, Houh Decl. ¶¶ 314–317), we determine by a preponderance of the evidence that the combination of Guyot and Blumenau renders claims 31 through 34 obvious.

xxxii. *Claim 35*

Claim 35 depends from claim 1, and recites “wherein at least one step of the method includes downloading scripting software to a user’s computer which can aid in the acquiring of demographic information about the user not specifically provided by the user.” Ex. 1001, 36:66–37:3.

Petitioner contends that the combination of Guyot and Blumenau renders claim 35 obvious. 483 Pet. 6, 61. In particular, Petitioner asserts that claim 35 recites limitations that are similar to those recited in claim 28, and that Guyot and Blumenau teach these limitations for similar reasons as presented for claim 28. *See id.* at 61. With respect to the additional limitation in claim 35, that software “can aid in the acquiring of demographic information about the user not specifically provided by the



user,” Petitioner contends this is non-limiting intended use language. *See id.* (emphasis omitted). In the alternative, Petitioner argues that Guyot’s system can perform the claimed “acquiring” limitation. *See id.* (citing Houh Decl. ¶¶ 328–329).

Patent Owner does not present argument concerning claim 35. We are persuaded that Guyot and Blumenau teach the limitations of claim 35 for similar reasons as with respect to claim 28, and, that Guyot discloses the “acquiring” limitation, as supported by Dr. Houh’s testimony. Houh Decl. ¶ 329 (noting that Guyot’s downloaded software keeps track of Internet sites that the subscriber has accessed and this information is transferred to the server for further defining the subscriber’s profile). Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that the combination of Guyot and Blumenau renders claim 35 obvious.

xxxiii. *Claim 36*

Claim 36 depends from claim 35, and recites “further comprising the step of selecting advertising to be displayed to the user based in part on the acquired demographic information.” Ex. 1001, 37:4–6. Petitioner contends the combination of Guyot and Blumenau renders claim 36 obvious. 483 Pet. 6, 61. In particular, Petitioner asserts that the limitation in claim 36 is similar to limitation 1.4 (the “selecting an advertisement” limitation) of claim 1, and that Guyot teaches this limitation. *Id.* at 61. We agree with Petitioner that the limitation in claim 36 is similar to the “selecting an advertisement” limitation in claim 1, and that for similar reasons as with respect to claim 1, Guyot teaches the claim 36 limitation. Accordingly, we

determine that Petitioner has demonstrated by a preponderance of the evidence that the combination of Guyot and Blumenau renders claim 36 obvious.

xxxiv. *Claim 37*

Claim 37 depends from claim 35, and recites “whereby the scripting software is JavaScript.” Ex. 1001, 37:7–8. Petitioner contends the combination of Guyot and Blumenau renders claim 37 obvious. 483 Pet. 6, 60–61. The Javascript limitation in claim 37 is similar to that recited in claim 30, and for similar reasons as with respect to claim 30, we determine by a preponderance of the evidence that the combination of Guyot and Blumenau renders claim 37 obvious.

3. Conclusion Regarding Guyot-Based Grounds

We have concluded our analysis of all the claims of the ’440 patent based on the challenges presented by Petitioner as identified above. Our conclusion of the Guyot-based grounds is that Petitioner has demonstrated by a preponderance of the evidence that claims 1–24 and 26–37 are unpatentable as presented in the Guyot-based grounds. And we conclude that Petitioner has not demonstrated by a preponderance of the evidence that Guyot anticipates claim 25.

*D. Ground Based on Robinson, Kobata, Angles Combination*

Because we have determined that all, but claim 25, have been shown to be unpatentable, we now focus on whether Petitioner has met its burden of showing that claim 25 would have been obvious over the combination of Robinson, Kobata, and Angles. 482 Pet. 61–63.

Because Petitioner's evidence for claim 25 and Patent Owner's arguments in opposition are directed solely to the Robinson reference, we focus our analysis on the disclosure of Robinson.

1. Overview of Robinson (Ex. 1004)

Robinson discloses a system for the display of advertising to users of an interactive communications medium. Ex. 1004, 1:12–13. The system tracks activities of a subject in an interactive communications medium, derives information from the activities, determines a community for the subject based on the derived information. *Id.* at 3:62–67. Robinson needs to track a consumer's activities so all the information the consumer generates can be tied together in the database. *Id.* at 2:48–50. Tracking data can be stored locally on a user's local computer. *Id.* at 7:26–28. A cookie can be generated and stored on the user's computer. *Id.* at 8:42–44. The cookie is the only way to associate information stored on the central server with that particular user. *Id.* The cookie contains the identifier of the user, and the user ID in a central database is updated with tracking information from the cookie. *Id.* at 10:11–14.

The information collected is used as the basis for calculations that generate a measure of similarity between individuals. *Id.* at 2:58–60. The individuals with the greatest calculated similarity become the subject's community. *Id.* at 2:63–64. The system then determines which advertisement to present to the user based on the subject's community by (1) displaying a new advertisement for a training period and (2) determining whether a high or low proportion of members of the subject's community

have chosen to view further information about the advertisement. *Id.* at 4:1–6.

In particular, Robinson features a “Smart Ad Box,” which is an area on the Web page in which to display advertisements. *Id.* at 4:8–10. “Special software algorithms are used to determine which ads are shown to which users.” *Id.* at 4:11–12. “When a Smart Ad Box appears on a page, a user viewing that page will see an ad which is targeted to that particular user.” *Id.* at 4:44–46. “This invention involves rotating the user through different ads which are [] likely to be of interest to that particular user.” *Id.* at 4:55–56. And the rotation schedule “can be chosen for maximal overall advertising effectiveness.” *Id.* at 4:57–58. For instance, Robinson describes measuring the advertising effectiveness by the frequency of the clicks on the ads shown and choosing the rotation schedule to maximize that number. *Id.* at 4:58–61. Robinson also considers the number of times the user has seen each ad in the past, and the predicted likelihood that the user will be interested in the given ad. *Id.* at 4:61–63. “Another factor that could be considered is resonance with the Web page showing the ad—perhaps the ad that relate in some way to the subject matter of the page will be more likely to be clicked on.” *Id.* at 4:64–67.

## 2. Analysis of Claim 25

Claim 25 depends from claim 1, and further recites “the step of providing reactive advertising to the user in real time by selecting and presenting an advertisement based at least in part on user interaction with the computer. Ex. 1001, 36:34–37.

Petitioner argues that Robinson teaches the limitation of claim 25, by selecting an advertisement to display in a “Smart Ad Box,” where the advertisement may be “based on ‘resonance with the Web page showing the ad.’” 482 Pet. 63 (quoting Ex. 1004, 4:64–67). In other words, Petitioner argues that “the user interacted with the computer to view a webpage showing an advertisement, and Robinson’s system chose an advertisement for display based on resonance with that page.” *Id.* (citing Houh Decl. ¶ 483).

Patent Owner responds that Robinson shows advertisements to a user based on the user’s association with a community, not “by targeting a specific advertisement to a specific user in real time based on that particular user’s interaction with their computer.” PO Resp. 55 (citing Ex. 1004, 3:1–4). That is, “Robinson’s system determines which advertisements to send to an entire community, and its constituent members, not in response to a particular user’s current interaction with their computer but instead via the results of the ‘training period’ for a particular advertisement.” *Id.* at 56. Patent Owner further argues that Robinson’s consideration of “resonance with the Web page showing the ad” is not used for selecting and presenting an advertisement in real-time. *Id.* at 56–57 (quoting Ex. 1004, 4:64–67) (citing Zatkovich Decl. ¶ 135). Rather, resonance of an advertisement is used for “measuring the effectiveness of advertisements that have *already* been selected and presented to a user,” and “determining if and when to potentially show such advertisement again in the future as part of a rotation schedule.” *Id.* at 57.

In Reply, Petitioner continues to rely on Robinson’s description of an advertisement’s resonance, but also points to “[o]ther portions of Robinson [that] confirm the advertisements are selected and presented based on user interaction.” Reply 25. In particular, Petitioner argues that Robinson’s “advertiser can specify inclinations to control when the ‘software is choosing the next ad to show **to a particular user who is visiting a particular Web site.**’” *Id.* (quoting Ex. 1004, 5:13–21) (citing Ex. 1004, 5:22–26; Supp. Houh Decl. ¶ 138).

In Sur-reply, Patent Owner objects to Petitioner’s reliance on passages of Robinson never before addressed and concerning the advertiser’s ability to choose a next ad for a user. Sur-reply 24. Nevertheless, Patent Owner argues that this “newly-cited passage does not involve selecting and presenting an advertisement to a user reactively or in real time,” but, rather, “teaches that an advertiser may choose whether its advertisement may be associated (or not associated) with a particular website.” *Id.* (citing Ex. 1004, 5:11–27).

We are not persuaded by Petitioner’s arguments and evidence that Robinson teaches the limitation of claim 25. We reiterate that claim 25 requires selecting and presenting an advertisement in real time, based on *current user interaction*, not based on *past user interactions*. *Supra*, Section V.A.4. As discussed below, we find that Robinson does not teach reactive targeting of advertising in real time based on a user’s *current* interaction.

Robinson describes a system for tracking activities of a subject in an interactive medium, deriving information from the activities, and then determining the community to which the subject belongs. *See* Ex. 1004,

3:61–3:67. Thereafter, “the system determines which of the one or more advertisements to present to the subject based on the subject’s community by displaying a new advertisement for a training period and determining whether a high or low proportion of members of the subject’s community have chosen to view further information about the advertisement.” *Id.* at 3:67–4:6. These passages inform us during the training period, whatever advertisement is selected based on an affinity with a community, not the user’s current interaction with the computer. These passages also inform us that when refining the selection based on the subject’s community choice to view further information regarding the displayed ad, that too is unrelated to the user’s current interaction with the computer. The Robinson selection of advertisement is based on past activity of a community of users, of which the current user may have been correlated with. The ads selected and displayed to the user, therefore, is based on past activity—past viewings of ads by or past activity of the community. *See* Zatkovich Decl. ¶¶ 133–134.

We are also unpersuaded by Petitioner’s argument that Robinson’s advertisement resonance teaches the limitations of claim 25. Robinson’s advertisement appears in a “Smart Ad Box” when a user is viewing a page, and the advertisement may be different for different user’s viewing the same page. Ex. 1004, 4:44–47. To avoid showing the same ad repeatedly to the same user, however, Robinson describes “rotating the user through different ads which are [] likely to be of interest to that particular user,” where “[t]he rotation schedule can be chosen for maximal overall advertising effectiveness.” *Id.* at 4:51–58. In improving advertising effectiveness, Robinson contemplates “resonance with the Web page showing the ad—

perhaps ads that relate in some way to the subject matter of the page will be more likely to be clicked on.” *Id.* at 4:64–67.

Properly read in context, Robinson’s resonance describes the relationship between the subject matter of the advertisement and the subject matter of the web page on which the advertisement may potentially be shown. Thus, Robinson recognizes that the advertisement may be more effective because of a relationship between the ad and the web page—not because the user is currently interacting with that website. Zatkovich Decl. ¶¶ 135–136. By the time any user visits that website, the rotation schedule has been set based on the ad content’s affinity with the web page information. *Id.* (opining that “advertisement [] has already been selected and presented to a user without reference to the particular content on the website the user is viewing.”). Thus, there is no connection to a user’s current interaction simply because an advertisement resonates with a page the user is viewing. Rather, as noted above, Robinson determines whether to show an advertisement to a user based on prior training of the advertisement with the user’s community and maximizing the rotation schedule. *See* Ex. 1004, 3:67–4:7. And even if an advertisement’s resonance may determine its prominence or frequency in a rotation schedule, this has been determined before the current user landed on the web page, not *because* the user landed on that web page. Zatkovich Decl. ¶ 136. We credit the testimony of Mr. Zatkovich in this regard. *Id.*

Further, to the extent it was timely presented, we also disagree with Petitioner that Robinson’s disclosure of advertisers specifying inclinations for presenting advertisements teaches the limitations of claim 25. Robinson



describes certain “[c]ontrol features for advertisers and Web site managers” for use, in one example, where “[a]n advertiser may not want to be associated with certain Web sites or types of Web sites.” Ex. 1004, 5:10–15. On the other hand, “there may be certain sites or types of sites they would like to be associated with as strongly as possible.” *Id.* at 5:15–17. In either case, “[a]dvertisers could specify such inclinations, and they can be stored in a database” so that “when the software is choosing the next ad to show to a particular user who is visiting a particular Web site, those factors can be taken into account.” *Id.* at 5:17–21. Robinson also describes that a Web site can specify such inclinations vis-à-vis certain advertisers or advertisements. *Id.* at 5:23–27.

The control features Petitioner identifies, however, relate to the preferences dictated by advertisers for the Web sites available to show their ads, not to a user’s current interaction. Although the advertiser’s preferences can be taken into account “when the software is choosing the next ad to show to a particular user who is visiting a particular Web site” (*id.* at 5:19–22), this does not teach that the selection of the advertisement is based on any user actions in real time. While we agree with Petitioner that a user takes action to visit a Web site (*see, e.g.*, Tr. 94:13–16 (“So the user went to that webpage, went to a car related webpage, and was presented with car related advertisements. That is a user interaction, clicking, typing in a URL, things like that.”)), visiting the Web site merely indicates that some advertisement should be shown in a Smart Ad Box. *See* Ex. 1004, 4:44–46. The selection of the particular advertisement shown is determined on the basis of a rotation schedule, as discussed above, or some other control

feature, such as advertiser or Web site preferences, but not on any *current user interaction*.

Petitioner attempts to bolster Robinson by arguing that a person of ordinary skill in the art “would have interpreted the prior art as teaching selection *based at least in part on user interaction* because, at the time, such selection was well-known, as contemporaneous literature supports,” pointing to Lazarus, Gallagher, and Apte. *See* Reply 26 (citing Ex. 1011, 3; Ex. 1008, 9:14–23; Supp. Houh Decl. ¶¶ 139–142). But we agree with Patent Owner that Petitioner’s reliance on other evidence not included in the asserted ground does not overcome Robinson’s shortcomings. *See* Sur-reply 25–26. Robinson is simply missing a teaching of selecting an advertisement based on current user interaction, and consideration of the background knowledge of skill in the art does not show it to be there.

In sum, we conclude that Petitioner has failed to show by a preponderance of the evidence that the asserted Robinson ground renders obvious the subject matter recited in claim 25.

## VI. 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 1–24 and 26–37 are unpatentable under the Guyot-based grounds.<sup>19</sup> We also determine that

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<sup>19</sup> Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the

Petitioner has not demonstrated by a preponderance of the evidence that claim 25 is unpatentable under any of the asserted grounds. This Final Written Decision, therefore, addresses all challenged claims of the '440 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.*, 809 F. App'x. 984, 990 (Fed. Cir. 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”).

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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, 5–7, 10–12, 26, 27	102	Guyot	1, 5–7, 10–12, 26, 27	
2–4	103	Guyot, Kikinis	2–4	
8	103	Guyot, Lazarus	8	
9	103	Guyot, Angles	9	
13–18	103	Guyot, Apte, Angles	13–18	
19, 20	103	Guyot, Apte, Angles, Cheng	19, 20	
21–24	103	Guyot, Ellsworth	21–24	
25	103	Guyot		25
28–37	103	Guyot, Blumenau	28–37	
1, 5–7, 10–12, 26, 27	103 <sup>20</sup>	Robinson, Kobata, Angles		
8	103 <sup>21</sup>	Robinson, Kobata, Angles, Lazarus		
2–4	103 <sup>22</sup>	Robinson, Kobata, Angles, Kikinis		
13–18	103 <sup>23</sup>	Robinson, Kobata, Angles, Apte		
19, 20	103 <sup>24</sup>	Robinson, Kobata, Angles, Apte, Cheng		
21–24	103 <sup>25</sup>	Robinson, Kobata, Angles, Ellsworth		
25	103	Robinson, Kobata, Angles		25
28–37	103 <sup>26</sup>	Robinson, Kobata, Angles, Blumenau		
<b><u>Overall Outcome</u></b>			1–24, 26–37	25

## VII. ORDER

In consideration of the foregoing, it is hereby

ORDERED that claims 1–24, and 26–37 of the '440 patent are determined to be unpatentable;

ORDERED that claim 25 of the '440 patent is determined to not 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.

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<sup>20</sup> 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.

<sup>21</sup> *See supra* n.20.

<sup>22</sup> *See supra* n.20.

<sup>23</sup> *See supra* n.20.

<sup>24</sup> *See supra* n.20.

<sup>25</sup> *See supra* n.20.

<sup>26</sup> *See supra* n.20.

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