UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Twitter, Inc. and Google LLC

Petitioner

v.

B.E. Technology, L.L.C.,

Patent Owner

IPR2021-00485

U.S. Patent 8,549,411

PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT 8,549,411 CHALLENGING CLAIMS 1-19

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EX1010	Microsoft Computer Dictionary (excerpts)	
EX1011	Gallagher et al., "A Framework for Targeting Banner Advertising On	
	the Internet," Proceedings of the Thirtieth Annual Hawaii	
	International Conference on System Sciences, January 1997.	
EX1012	U.S. Patent 5,848,396 to Gerace	
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EX1018	Declaration of Dr. Henry Houh, Ph.D. in IPR2014-00039	
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EX1020	U.S. Patent 6,032,162 to Burke	
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EX1031	Curriculum Vitae of Henry Houh, Ph.D.	
EX1032	[reserved]	
EX1033	IP Address: Your Internet Identity, Russ Smith, Consumer.net, March	
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EX1034	IPR2014-00039 Institution Decision	
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EX1039	B.E. Technology, LLC v. Google, Inc. et al., 2016 WL 6803057 (Fed.	
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EX1041	U.S. Patent 6,119,098 to Guyot et al.	
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EX1045	[reserved]	
EX1046	Simon St. Laurent, "Cookies," 1998	
EX1047	U.S. Patent 5,948,061 to Merriman et al.	
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EX1050	Joe Kilsheimer, "Tossing your cookies takes some deft switching,"	
Seattle Times, June 29,1997		
EX1051	U.S. Patent 6,285,987 to Roth	
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I. MANDATORY NOTICES UNDER 37 C.F.R. §42.8

A. Real Party-in-Interest

Under 37 C.F.R. §42.8(b)(1), Twitter, Inc. and Google LLC ("Petitioner") certify that they are the sole real parties-in-interest.¹

B. Related Matters

According to assignment records, U.S. Patent 8,549,411 ("the '411 Patent") (Ex-1001)), and related patents U.S. Patent 8,769,440 ("the '440 Patent") and U.S. Patent 8,549,410 ("the '410 Patent") are currently assigned to B.E. Technology, L.L.C. ("BE Technology" or "Patent Owner").

As of the filing date of this Petition, and to the best knowledge of Petitioner, the '440 Patent, '410 Patent, and '411 Patent are or have been involved in *B.E. Technology, L.L.C. v. Twitter, Inc.*, Case No. 1:20-cv-00621, and *B.E. Technology, L.L.C. v. Google LLC*, Case No. 1:20-cv-00622, both in the District of Delaware. Petitioner is concurrently filing petitions challenging the '440 Patent and '410 Patent.

The '411 Patent is a continuation application (through a chain of continuation

¹ Google LLC is a subsidiary of XXVI Holdings Inc., which is a subsidiary of Alphabet Inc. XXVI Holdings Inc. and Alphabet Inc. are not real parties in interest to this proceeding.

applications) of U.S. Application No. 09/744,033, filed as application No. PCT/US9916135, now U.S. Patent 6,771,290 ("the '290 Patent"). *See* Ex-1001, field (63). The '290 Patent was involved in the following *inter partes* review proceedings before the Board: IPR2014-00029, IPR2014-00031, IPR2014-00033, IPR2014-00040, and IPR2014-00044.

The '411 Patent claims the benefit, through a chain of continuation applications, of U.S. Patent Application 09/118,351, now U.S. Patent 6,141,010. *See* Ex-1001, field (63). Related U.S. Patent 6,628,314 ("the '314 Patent") also claims priority (as a divisional) to U.S. Patent Application 09/118,351. *See* '314 Patent (Ex-1053), field (62). The '314 Patent was involved in the following *inter partes* review proceedings before the Board: IPR2014-00038, IPR2014-00039, IPR2014-00052, IPR2014-00053, IPR2014-00698, IPR2014-00699, IPR2014-00738, IPR2014-00743, and IPR2014-00744. *See* Ex-1036-Ex-1038 (PTAB Final Written Decisions). BE Technology appealed the Board's final written decisions to the Federal Circuit in *B.E. Technology, LLC v. Google, Inc. et al.*, 2016 WL 6803057 at *1 (Fed. Cir. Nov. 17, 2016). The Federal Circuit affirmed those decisions. *See* Ex-1039 (Federal Circuit Opinion).

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II. CERTIFICATION OF GROUNDS FOR STANDING

Petitioner certifies under Rule 42.104(a) that the patent for which review is sought is available for *inter partes* review and that Petitioner is not barred or estopped from requesting an *inter partes* review challenging the patent claims on the grounds identified in this Petition.

III. OVERVIEW OF CHALLENGES AND RELIEF REQUESTED

Under Rules 42.22(a)(1) and 42.104(b)(1)-(2), Petitioner challenges claims 1-19 ("challenged claims").

A. Prior Art Patents and Printed Publications

The '411 Patent claims priority to an application filed July 17, 1998. These references are pertinent to the grounds of unpatentability explained below:

- 1. U.S. Patent 6,119,098 to Guyot et al. ("Guyot", Ex-1041). Guyot was filed October 14, 1997, and issued September 12, 2000.
- U.S. Patent 5,796,393 to Bruce A. MacNaughton et al. ("MacNaughton", Ex-1022). MacNaughton was filed November 8, 1996, and issued August 18, 1998.
- 3. U.S. Patent 5,918,014 to Gary B. Robinson ("Robinson", Ex-1004).

 Robinson was filed December 26, 1996, and issued June 29, 1999.
- 4. U.S. Patent 5,933,811 to Angles et al. ("Angles", Ex-1006). Angles was filed August 20, 1996, and issued August 3, 1999.
- 5. U.S. Patent 6,138,142 to Steven J. Linsk ("Linsk", Ex-1023). Linsk was filed December 20, 1996, and issued October 24, 2000.
- 6. U.S. Patent 6,058,418 to Hiroshi Kobata ("Kobata", Ex-1005). Kobata was filed February 18, 1997, and issued May 2, 2000.
- 7. U.S. Patent 5,848,396 to Thomas A. Gerace ("Gerace", Ex-1012). Gerace

was filed April 26, 1996, and issued December 8, 1998.

8. "How to Use Anonymous FTP," Network Working Group Request for Comments: 1635, May 1994 ("RFC1635", Ex-1016).

Guyot, MacNaughton, Robinson, Angles, Linsk, Kobata, and Gerace qualify as prior art at least under §102(e). RFC1635 qualifies at least under §102(b). None of the above references were cited during the '411 Patent's prosecution.

B. Statutory Grounds for Challenges

This Petition, supported by the declaration of Dr. Henry Houh (Ex-1007), requests cancellation of claims 1-19 under the Grounds listed below, which assert obviousness under 35 U.S.C. §103:

Ground	Claims	Combination
1	1-3, 6-9, 11-16, 18-19	Guyot/MacNaughton
2	1-4, 6-8, 10, 13, 15-16,	Robinson/MacNaughton/Angles
	and 18-19	
3	5	Guyot/MacNaughton/Linsk
4	5	Robinson/MacNaughton/Angles/Linsk
5	9, 14	Robinson/MacNaughton/Angles/Kobata
6	10	Guyot/MacNaughton/Robinson
7	11-12	Robinson/MacNaughton/Angles/Gerace
8	4, 17	Guyot/MacNaughton/RFC1635

9	17	Robinson/MacNaughton/Angles/RFC1635

IV. U.S. PATENT 8,549,411

A. Summary

The '411 Patent is titled "Method of Reactive Targeted Advertising." The Abstract states that its method "provides for display of advertising, via the internet, to computers of users" (Ex-1001, Abstract) and with reference to the challenged claims, the '411 Patent describes selecting advertisements "based at least on [] usage of the computer together with information associated with [a] unique identifier identifying the computer." *Id.*, claim 1.

But the concepts encompassed by the '411 Patent's claims were well-known before its priority date. For example, Robinson, analyzed below, described using identifiers to track users' activities on the Internet that could be used to make advertisement selections. *See, e.g.*, Ex-1004, 2:27-48, 3:18-27, 4:44-46, 6:54-58. Similarly, Angles disclosed a "member code which uniquely identifies each consumer" so that an "advertisement provider" could "select[] an appropriate customized advertisement" for the consumer. Ex-1006, 6:59-65, 8:8-19.

Academic research confirmed that these aspects were also well-known; for example, a 1997 research paper "propose[d] a framework for effectively targeting banner advertising in an electronic marketplace" that assigned unique identifiers to

users to target advertisements based on demographic information. *See generally*, Ex-1011; Ex-1007, ¶¶45-51.

In other words, before the '411 Patent, it was well-known to use a unique identifier to record information about a user, such as demographic information or the user's browsing habits, and to use that information to target advertising.

The fact that the '411 Patent's claims recite nothing new is also confirmed by the history of its patent family. The '411 Patent is in the same family as the '314 Patent. See Ex-1001, field (63); Ex-1053, field (62).

In 2013 and 2014, B.E. Technology sued multiple parties who responded by filing *inter partes* reviews challenging claims of the '314 Patent that recited subject matter similar to that claimed in the '411 Patent. *See* Ex-1039, *1 (listing the nine *inter partes* reviews challenging the '314 Patent and providing an overview of the patent's subject matter). The '314 Patent's challenged claims recited features that closely correspond to those found in the '411 Patent. *See id.*, *2; Ex-1007, ¶56 (chart comparing '314 Patent and '411 Patent claims). The Board entered final written decisions cancelling the '314 Patent's challenged claims. Ex-1036-Ex-1038. In support of its determination, the Board credited the expert testimony of Dr. Henry Houh and found the limitations of the '314 Patent present in the prior art (including in the Guyot, Robinson, and Angles references applied in this Petition). Ex-1036-Ex-1038. In 2016, the Federal Circuit affirmed the unpatentability of those

challenged claims. Ex-1039. As a result of the Board's final written decisions, claims 11-22 of the '314 Patent stand cancelled. *See* Ex-1053, *Inter Partes* Review Certificate issued Feb. 6, 2018. Consequently, Patent Owner in the instant proceeding is "precluded from taking action inconsistent" with those adverse judgments, 37 C.F.R. § 42.73(d)(3), and is subject to issue preclusion with respect to facts and issues decided against the patentee in the earlier IPRs, *see Papst Licensing GMBH & Co. v. Samsung Elecs. Am., Inc.*, 924 F.3d 1243, 1252-53 (Fed. Cir. 2019) (applying issue preclusion from earlier IPRs to later IPR of different patent).

The cancelled claims of the '314 Patent recite many of the same limitations recited in the '411 Patent. But the references applied in the '314 Patent's *inter partes* reviews, like Guyot, Robinson, and Angles, were not disclosed to the examiner during the '411 Patent's prosecution, and at least Robinson was never before the examiner at all, including during the examination of the '440 Patent.² As detailed

² The '411 Patent is a continuation of U.S. Application No. 12/692,290, which matured into the '440 Patent. Although some references applied in the '314 Patent *inter partes* review were before the examiner during the '440 Patent's prosecution, the '440 Patent's prosecution history does not indicate meaningful consideration of these references by the examiner. *See also* §VIII, *infra*.

below, an overwhelming amount of evidence supports that the claims recite well-known subject matter, would have been obvious to a POSITA, and that each claim is therefore unpatentable as obvious. Petitioner respectfully requests that the Board consider the petition and supporting evidence (including the declaration of Dr. Houh), institute trial, and proceed to cancel claims 1-19.

B. Level of Ordinary Skill in the Art

A POSITA 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. Additional education (e.g., a Master's degree) can substitute for less experience; likewise, additional work experience (e.g., 5-6 years) can substitute for less education. Ex-1007, ¶57-61.

C. Prosecution History

The '411 Patent issued from U.S. Patent Application 13/620,315 ("the '315 Application"), filed September 14, 2012. The '315 Application claims priority to a chain of applications, with the earliest being filed July 17, 1998.

The '315 Application was filed with a Preliminary Amendment containing claims that, in many respects, are identical to the claims that issued as the '411 Patent. See Ex-1002, 1-4. For example, the original prosecution claims contained

limitations relating to determining computer usage and selecting an advertisement based on usage of the computer. *See id*.

In the first Office action, the examiner rejected the pending claims on the ground of nonstatutory double patenting over two pending applications: U.S. Application No. 12/692,290 (to which the '411 Patent claims priority) and U.S. Application No. 13/620,256.³ *See id.*, 98-102. The examiner also rejected the claims as obvious over the combination of U.S. Patent 5,948,061 to Merriman in view of U.S. Patent No. 6,144,944 to Kurtzman II. *Id.*, 102-107.

In response, the applicant did not amend any claims. *See id.*, 121-132. With respect to the prior art rejections, the applicant argued that Merriman did not disclose transferring a copy of software or that the software was configured to allow user messaging capabilities. *See id.*, 126-129. The applicant also argued that Kurtzman did not teach receiving a request for an advertisement and providing an advertisement, allegedly because Kurtzman delivered a complete webpage. *See id.*, 129-132.

³ The '290 Application became U.S. Patent No. 8,769,440, which is being challenged by Petitioner in IPR2021-00482 and IPR2021-00483. The '256 Application became U.S. Patent No. 8,549,410, which is being challenged by Petitioner in IPR2021-00484.

The examiner then issued a second non-final Office action, maintaining the double patenting rejection and further rejecting the claims as obvious over the combination of U.S. Patent No. 5,347,632 to Filepp, Merriman, and Kurtzman. *See id.*, 138-150. The applicant then conducted two interviews with the examiner, and during the interviews came to an agreement with the examiner on proposed amendments to obviate the obviousness rejection. *Id.*, 170-171. Thus, in response, the applicant filed a terminal disclaimer (*see id.*, 172), and amended the claims slightly to additionally recite that "when the program runs on the computer such that one of a number of unique identifiers is recorded by the software" as well as the features related to a "user demographic database." *Id.*, 167-169.

According to the applicant's remarks, prosecution claim 14 was cancelled and limitations analogous to those in the cancelled claim were incorporated into the independent claim. *See id.*, 172. The limitations of prosecution claim 14 recited "retrieving information from an address book on the computer and storing the information in one or more memories associated with the one or more servers and associating the information from the address book with the user"; those limitations were broadened to become "retrieving information from a **user demographic database associated with the user**; storing the retrieved information in memory associated with one or more servers; associating the retrieved information with the

user." See id., 167.4

Based on the interview agreements, the applicant argued *pro forma* that the independent claim was not rendered obvious by the applied prior art. *Id.*, 172-173. The applicant soon thereafter filed a statement listing pending litigations in which family members of the '411 Patent were asserted, and also filed an IDS citing seven references. *Id.*, 182-193. Subsequent to the IDS filing, the examiner issued a Notice of Allowance, but did not provide any reasons for allowance. *Id.*, 196-201.

As noted above, the '315 Application from which the '411 Patent issued claims priority to the '290 Application. Though the applicant cited numerous references to the office in the prosecution of the '290 Application, by contrast, the applicant cited **no** references to the office in the '315 Application that were applied by the examiner. And, as demonstrated below, there was a plethora of prior art that taught the limitations of the '315 Application's claims.

D. Priority Date

Without prejudice to Petitioner's right to challenge the priority claim in other proceedings, Petitioner assumes a priority date of July 17, 1998. Petitioner is unaware of any entitlement to an earlier priority date for the claims of the '411

⁴ Emphasis is added throughout unless otherwise specified.

Patent.

V. CLAIM CONSTRUCTION

The challenged claims are construed herein "using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. §282(b)." 37 C.F.R. §42.100(b) (Nov. 13, 2018). All claim terms should have their plain and ordinary meaning or the express definitions set forth in the '411 Patent (*see* Ex-1001, 4:1-5:4).⁵

VI. CLAIMS 1-19 ARE UNPATENTABLE

A. Claims 1-3, 6-9, 11-16, 18, and 19 are obvious over Guyot and MacNaughton (Ground 1)

1. Prior Art Overview

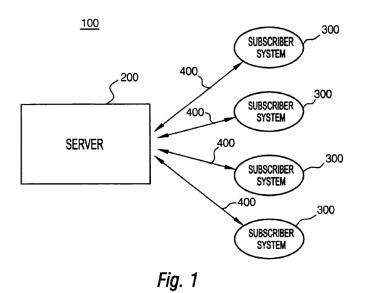
Guyot

The Board previously found that Guyot anticipated claims 11-14 and 16-19 of the '314 Patent (Ex-1037), and the Federal Circuit affirmed (Ex-1039, *4-6).

Guyot discloses a system and method for targeting and distributing advertisements over the Internet. (Ex-1041, 1:9-11). Information is exchanged

⁵ Petitioner reserves the right to seek constructions of additional terms in litigation for matters not at issue in this proceeding.

between a server 200 and multiple subscriber systems 300 via communication links 400 as shown in Figure 1. *Id.*, 3:13-18, 3:44-47.



Each subscriber system has a "unique proprietary identifier." *Id.*, 3:21-22. Server 200 stores and manages an advertisement database. *Id.*, 3:23-24. 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.*, 3:25-29. Subscriber systems 300 then display the targeted advertisements. *Id.*, 3:28-29.

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

MacNaughton

MacNaughton describes an "extension to a user's preferred Web browser...manifested as a toolbar comprised of control buttons." Ex-1022, Abstract. The "control buttons on the toolbar present opportunities for interacting with other community members" for example by allowing the user "to initiate a chat session with another community member." *Id.*, Abstract, 3:58-61.

2. Analysis

In the following analysis, where a limitation is similar to one previously found present in Guyot, citations to those previous opinions are provided.

Claim 1

Limitation [1.0]

Guyot details a "method for targeting and distributing advertisements." Ex-1041, Abstract; Ex-1034, 10; Ex-1007, ¶¶96-99.

Limitation [1.1]

Guyot uses a server to deliver targeted advertising to users. Ex-1041, FIG.3, 1:60-65, 2:29-35, 3:23-30, 3:49-4:27, 5:18-27; Ex-1007, ¶¶100-102. The server communicates with client computers via "the Internet." Ex-1041, 1:8-10, 1:60-65,

3:18-54, 5:62-67; Ex-1007, ¶102. The client computers *access* the server, because a user can use the "client application that runs on a subscriber's computer" to, *inter alia*, receive advertising content from the server via the network. Ex-1041, 1:59-60, 2:29-35, 3:18-20, 5:18-27, 6:31-39; Ex-1034, 10; Ex-1007, ¶102.

Limitation [1.2]

The combined teachings of Guyot and MacNaughton render obvious this claim limitation.

Limitation [1.2.1]

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. Ex-1041, 5:18-23, 7:25-27; 8:28-50, FIG.6A; Ex-1034, 11-12; Ex-1007, ¶¶104-106.

Limitation [1.2.2]

When running on the user's computer, Guyot's client application *displays* advertising content to a user in "an advertising 'window' that is continuously displayed on the subscriber's computer." Ex-1041, FIG.4A, 2:1-6, 5:45-61, 11:3-5; Ex-1007, ¶108. Guyot's client application records computer usage information associated with utilization of the computer by "keep[ing] track of Internet sites that

the subscriber has accessed" and transferring this information to a server. Ex-1041, 2:36-42, 4:19-22. The client application also tracks a user's mouse and keyboard activity to determine the best time to display advertising. Ex-1041, 5:6-11; Ex-1007, ¶¶107-109.

Limitation [1.2.3]

A POSITA would have recognized that software *configured to allow user messaging capabilities between the user and one or more users* was well-known (e.g., e-mail was well-known, *see also* Ex-1007, ¶115), and in a similar field of "enhancing a computer user's Internet browsing experience," MacNaughton teaches an "extension to a commercially available browser" that provides multiple capabilities, such as a "Chat" capability that provides "real time interactions with community members" and an "Invitations" capability to allow "messages from one community member to another to chat." Ex-1022, 1:8-17, 9:52-56, 9:17-26. Thus, MacNaughton teaches software *configured to allow user messaging capabilities between the user and one or more users*. Ex-1007, ¶111.

MacNaughton is analogous art to the '411 Patent, as it is pertinent to at least one problem faced by the inventor: creating software to provide messaging capabilities among different users. *See* Ex-1001, 15:57-16:7. Guyot discloses an "interactive" implementation when the user is connected to the Internet. Ex. 1041, 5:52-67. A POSITA would have been motivated to combine the teachings of

MacNaughton with the online implementation of Guyot at least because MacNaughton provides explicit motivations, as it describes "enhancing a computer user's Internet browsing experience by determining a user's preferences and facilitating the user's interaction with a community of users." Ex-1022, 1:8-17. A POSITA would have recognized an enhanced browsing experience as desirable (*see id.*, 3:2-5), and that such a desirable enhancement to Guyot's software would have been beneficial to the company offering Guyot's software, as it would have provided an additional incentive to users to download Guyot's browser, consistent with Guyot's objectives. Ex-1007, ¶112-113.

Further, a POSITA would have recognized a reasonable expectation of success in incorporating MacNaughton's teachings, as MacNaughton provides an example application of its teachings in the context of the Netscape Navigator web browser, a common web browser, and Guyot discloses web browsers throughout. Ex-1007, ¶¶114-116.

Limitation [1.2.4]

When run on the computer, the system of Guyot records subscriber data that includes a personal profile of the subscriber as well as "a password assigned to the subscriber." Ex-1041; 3:55-61. The personal profile and password constitute *one* of a number of unique identifiers and they are recorded by the software in database 220. *Id.*; Ex-1007, ¶¶117-119.

Limitation [1.3]

Guyot shows that each user computer ("subscriber system 300") is identified with a "unique proprietary identifier." Ex-1041, 3:18-22. The *unique identifier is determined* when initially set (*id.*, 3:55-65), and again when used by the system in selecting an appropriate advertisement to be displayed on the specific computer associated with the user of that computer, as described further in limitation [1.8]. Ex-1007, ¶122-123.

The unique identifier *uniquely identifies information sent from the computer* to the one or more servers. Ex-1007, ¶124. The server maintains a database containing "Subscriber Data" and "Subscriber Statistics" for each user. Ex-1041, FIG.3; 3:55-65. **Subscriber Data** includes a "subscriber's identification information, a password assigned to the subscriber, and a personal profile of the subscriber." *Id.*, 3:57-61. **Subscriber Statistics** include a subscriber's usage information, such as "the number of times each advertisement has been effectively displayed on the subscriber's system," and "information on Internet sites that the subscriber has accessed." *Id.*, 2:22-28, 4:15-23. The server updates this database information based on information received from the user computer, including personal profile updates provided by the user, and further defines the subscriber's personal profile. *Id.*, 1:60-65, 2:22-42,3:23-30, 3:49-54, 4:21-23, 5:18-27, 6:31-39.

Thus, Guyot discloses a unique identifier associated with the computer ("unique proprietary identifier" and/or "Subscriber Data") which uniquely identifies information ("Subscriber Statistics") sent from the computer to the one or more servers. Ex-1007, ¶¶123-125; Ex-1034, 12; Ex-1037, 18.

Limitation [1.4]

Guyot's client application determines *the computer usage of the computer*, e.g., by tracking a user's mouse and keyboard activity to determine the best time to display advertising to the user. Ex-1041, 5:6-11. The client application also tracks the user's Internet browsing behavior and history, which also constitutes *computer* usage of the computer. Ex-1041, 2:36-42; Ex-1007, ¶¶127-130.

Limitation [1.5]

Guyot teaches a "Subscriber Context" stored in memory on the client device (a *user demographic database*). Ex-1041, 4:28-37; Ex-1007, ¶133. Guyot's Subscriber Context stores "Subscriber Statistics" that include, *inter alia*, "information on Internet sites that the subscriber has accessed…." Ex-1041, 4:19-21; 28-37; Ex-1007, ¶134. The information regarding Internet usage is a type of demographic *information* that would be stored in a *demographic database*. *See* Ex-1039, *3; Ex-1007, ¶134-135. Thus, the Subscriber Statistics of Guyot are

information from a user demographic database. Ex-1007, ¶¶134-137 (explaining that Guyot additionally discloses a user demographic database on the server).

The system of Guyot *retrieves* the Subscriber Statistics and uploads them to a server. Ex-1041, 5:18-22; 4:21-23; Ex-1007, ¶136.

Guyot teaches that the information from a user demographic database is associated with the computer user because, once transferred to the server, the server utilizes the Subscriber Statistics "to further refine the subscriber's personal profile." Ex-1041, 4:15-23; Ex-1007, ¶137. The demographic database itself is also associated with the computer user in that it is stored on the user computer.

Limitation [1.6]

In Guyot, "[w]hen the processor 310 [of the user computer] establishes a connection with the server 200, the processor...uploads the Subscriber Statistics to the server 200." Ex-1041, 5:18-22; 4:21-23. The server stores this retrieved information *in memory*. *See id.*, 3:43-48; Ex-1007, ¶¶139-142.

Limitation [1.7]

Guyot discloses associating the retrieved information in limitation [1.5] with the user because when the subscriber statistics are "transferred to the server 200, the server utilizes the information to further define the subscriber's personal profile." Ex-1041, 4:21-23. Ex-1007, ¶¶143-147.

Limitation [1.8]

Guyot teaches selecting an advertisement to be displayed on the computer based on the usage of the computer. The Subscriber Statistics include "information on the Internet sites that the subscriber has accessed" (i.e., the usage of the computer) and Guyot "utilizes this information to further define the subscriber's personal profile." Ex-1041, 4:15-24. The system in turn utilizes the personal profile to target advertisements for the subscriber, see id., 1:60-65; 3:60-61. Ex-1007, ¶¶149-150.

Guyot also discloses that the selection is based on *information associated with* the unique identifier identifying the computer. Guyot's server selects advertisements to send based on a user's personal profile (within Subscriber Data) and associated usage information (within Subscriber Statistics). Ex-1041, FIG.3, 1:60-65 (server "provides advertisements to the 'client' application that are targeted to each individual subscriber, **based on a personal profile provided by that subscriber**."), 3:23-30, 3:49-54, 4:15-23; Ex-1007, ¶¶151-152. The client application will download targeted advertising selected from the server whenever it connects to the server. Ex-1041, 1:60-65, 2:29-35, 3:23-30, 5:18-27; Ex-1007, ¶152. The client application then displays that advertising content. Ex-1041, FIG.4A; 2:1-6, 5:45-61; Ex-1007, ¶152.

Guyot discloses the unique identifier identifying the computer. First, Guyot's

"unique proprietary identifier" is assigned to and thus identifies the computer itself ("subscriber system 300"). Ex-1041, 3:20-21 ("each of the subscriber system 300") having a unique proprietary identifier"); Ex-1007, ¶154. Second, in the claims, the computer that is identif[ied] in limitation [1.8] finds its antecedent basis in limitation [1.2.1], which first introduces "a computer associated with the computer user." No other "computer" is mentioned in the claim. Thus, the full limitation reads: unique identifier identifying the computer [associated with the computer user].⁶ In this context, Guyot further meets this limitation through the computer's association with the computer user. Specifically, Guyot's Subscriber Data includes a "subscriber's identification information, a password assigned to the subscriber, and a personal profile of the subscriber." *Id.*, 3:57-61. Guyot's server containing "Subscriber Data" and "Subscriber Statistics" for each user is updated 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.*, 1:60-65, 3:23-30,

⁶ In addition to the antecedent basis for "the computer" discussed above, the patent's specification is silent about how the computer itself would be identified independently of its user, and instead relies on assigning a unique ID to the *user* associated with the computer. *See* Ex-1001, 9:16-21, 20:6-12, 21:25-28, FIG.8 (block 140), 22:37-46; Ex-1007, ¶155.

3:49-54, 4:21-23, 5:18-27, 6:31-39. Ex-1007, ¶155.

Third, the *unique identifier identifying the computer* in limitation [1.8] does not require each computer to be identified "uniquely." This differs from limitation [1.3], which specifies that the "unique identifier *uniquely* identifies information sent from the computer to the one or more servers." Nevertheless, even if limitation [1.8] were interpreted to require each computer to be identified "uniquely," Guyot still meets this limitation. Guyot's configuration shows a scenario where each computer is being used by only a single user, not a scenario where a computer has multiple users' accounts, nor a scenario where the same user interacts with the Guyot system using multiple computers. Ex-1041, 3:18-22; Ex-1007, ¶156. Patent Owner's expert during the '314 Patent IPR proceedings (Mr. Goldstein) acknowledged this in his deposition. Ex-1040, 92:17-20 ("Q. Now, Guyot doesn't actually say that the computer the user is using has to support multiple user accounts; right? A. That's correct."), 93:11-14 ("Q. Guyot doesn't actually describe a scenario where the user will take his credentials and go to different computers to log onto the server; correct? A. Yes, it does not describe that.").

Accordingly, Guyot's Subscriber Data identifies only one computer—the computer being used by that one user. Ex-1007, ¶157. The unique proprietary identifier, therefore, uniquely identifies the copy of the user interaction software for each user's computer, and thus can be distinguished from every other computer in

the network. Ex-1007, ¶157. Indeed, even in a hypothetical situation where a single user interacts with the Guyot system using multiple computers at different times, or if multiple users were using a single computer at different times, then the Subscriber Data of Guyot would still uniquely identify the particular computer a user is using at any particular time (i.e., the computer associated with the computer user). This is because the information being sent by any individual user will include that user's subscriber identification information, password, and personal profile—each of which is uniquely linked to the computer at the time it is being used by the user. Ex-1007, ¶157.

It should also be noted that, unlike dependent claim 10 analyzed below, claim 1 does not recite the use of a "cookie containing a unique identifier." Nevertheless, as analyzed below for claim 10, Robinson's "cookie" performs the function of tying the unique identifier to the computer itself, thus further distinguishing each computer uniquely from every other computer in Guyot's system, thus rendering claim 1 obvious as well. *See* Ex-1007, ¶158; *see also Callaway Golf Co. v. Acushnet Co.*, 576 F.3d 1331, 1344 (Fed. Cir. 2009) ("A broader independent claim cannot be nonobvious where a dependent claim stemming from that independent claim is invalid for obviousness.").

Limitation [1.9]

Guyot's client application automatically requests more advertising content

when a user's advertising queue is running low; this request is received by the server. Ex-1041, 2:29-35, 5:18-27; Ex-1007, ¶¶161-162; *see also* Ex-1041, 6:43-46. Guyot also shows the user may select additional advertising content by selecting an "Internet link" displayed within the advertisement window. Ex-1041, 5:52-67; Ex-1034, 11-12; Ex-1007, ¶163.

Guyot also discloses or renders obvious that *the computer [is] accessing the* web page because a user would be connected to a webpage on the Internet when clicking on an "Internet link." Ex-1007, ¶163.

Limitation [1.10]

As discussed above, after an advertisement has been selected based at least on the unique identifier, Guyot's client application will download the selected advertisement from the server (i.e., the server *provides the selected advertisement*) whenever it connects to the server. Ex-1041, 1:60-65, 2:29-35, 3:23-30, 5:18-27; Ex-1034, 11-12; Ex-1037, 18; Ex-1007, ¶166-167. The client application then displays the selected advertisement on the computer; thus the provided advertisement is *for display*. *Id*. The user may also select additional advertising content in real time when connected to the Internet by selecting an Internet link within the advertisement window, the selection of which causes the user's system to retrieve advertising material from the Internet site on which it is stored and display

it to the user. Ex-1041, 5:52-67; Ex-1007, ¶167.

Claim 2

Guyot discloses a "unique proprietary identifier" identifying a subscriber Ex-1041, 3:18-22. Guyot's system records "Subscriber Data" that system. "preferably includes, for each subscriber...a password assigned to the subscriber, and a personal profile of the subscriber." Ex-1041, 3:57-60. The subscriber's "personal profile" is obtained by having the subscriber provide answers to a questionnaire. Id., 3:61-62. As discussed above in limitation [1.8], the "unique proprietary identifier" of Guyot must be (or obviously would be) associated with the user's personal profile (i.e., via the login process requiring a password). Ex-1041, 3:57-60; Ex-1007, ¶¶169-171. Guyot also collects and records "information on Internet sites that the subscriber has accessed," which is transferred to a server and utilized "to further define the subscriber's personal profile." *Id.*, 4:19-23. Guyot's Internet usage information disclosed in Guyot constitutes demographic information. Ex-1037, 12-15; Ex-1039, *3, *5.

Claim 3

Guyot's server selects advertisements to send to users based on a user's personal profile, which includes Internet usage information (demographic

information). Ex-1041, FIG.3; 1:60-65, 2:37-42; 3:23-30, 3:49-54; Ex-1039, *3; Ex-1007, ¶¶172-174.

Claim 6

In Guyot, "server 200 stores and manages an advertisement database" (Ex-1041, 3:23-24, FIG.3) and "advertisements are stored in the memory in an advertisement database" (*id.*, 13:11-13). Ex-1007, ¶¶175-177.

Claim 7

Guyot's software periodically connects to the advertising server to both upload the user's computer usage information and download additional advertising content. *See* Ex-1041, 2:29-35; 5:18-23; Ex-1037, 18; Ex-1039, *6.

Guyot also discloses the periodic transfer of additional advertising content to the user *in response to additional usage of the computer by the user*. The user connecting to the server, as discussed above, constitutes *additional usage of the computer*. The computer usage data (e.g., the user's Internet browsing activity information) is periodically uploaded to the server as part of the Subscriber Statistics (*id.*, 4:15-23; 5:18-23; 6:51-56) and also constitutes data regarding *additional usage of the computer* that triggers the periodic transfer of advertisements to the user computer. Ex-1007, ¶¶178-183.

Claim 8

Guyot discloses a "network 100...**implemented on the Internet**." Ex-1041, 3:18-20; Ex-1037, 18; Ex-1039, *6; Ex-1007, ¶¶184-187.

Claim 9

Guyot's system overview shows that each user computer (i.e., "subscriber system") is identified to the server with a "unique proprietary identifier." Ex-1041, 3:18-22; Ex-1037, 18 (finding Guyot to anticipate the '314 Patent's claim 14, which recited materially similar language); Ex-1039, *6; Ex-1007, ¶¶188-191.

Claim 11

Guyot discloses a *user login to use the software*. Ex-1037, 18 (finding Guyot to anticipate the '314 Patent's claim 16, which recited materially similar language); Ex-1039, *6. The login to use the software of Guyot is obvious from Guyot's teaching of a password. Specifically, the user's password is included in separate Subscriber Data for each user. Ex-1041, 3:57-65; Ex-1007, ¶¶193-194. Subscriber Data, in Guyot's words, "preferably includes, for each subscriber, the subscriber's identification information, a password assigned to the subscriber, and a personal profile of the subscriber...." Ex-1041, 3:57-60; Ex-1007, ¶194. The use of a

password renders obvious a login to use the software, because the purpose of a password in computer technology is to allow access to a specific user through a login process. Ex-1007, ¶194.

Guyot further discloses that the software associates a *different unique identifier with each of a number of valid users*. As discussed in connection with limitations [1.3] and [1.5], Guyot teaches that Subscriber Data, including a personal profile, is uniquely assigned to each computer user. Ex-1041, 3:57-61; Ex-1007, ¶195.

Claim 12

As discussed in limitation [11.1], Guyot teaches software that *requires a user login to use the software*.

As discussed in limitations [1.3] and [11.1], Guyot also discloses *unique identifiers* for each user.

Guyot also discloses *computer usage information recorded by the software* as part of the Subscriber Statistics, which preferably include information related to the advertisements displayed on the subscriber's system and information on the Internet sites that the subscriber has accessed. Ex-1041, 4:15-24. This information is utilized to refine the subscriber's personal profile. *Id.*; Ex-1037, 18 (finding Guyot to anticipate the '314 Patent's claim 17, which recited materially similar language);

Ex-1039, *6.

It would have been obvious to a POSITA in view of Guyot to use the user login as a gateway or key to associate the user's personal profile with computer usage information because the user is logged in to the system. Ex-1007, ¶¶197-203. Associating the computer usage information with that user's personal profile following login would have been obvious to utilize the user's usage information to target advertisements to that user. Ex-1007, ¶202.

Claim 13

Guyot describes a client application that tracks which Internet sites a user visits (i.e., *data regarding information resources accessed by the computer*) while online (i.e., *over the network*). Ex-1041, 2:36-42; 4:19-23; Ex-1007, ¶¶204-207; Ex-1037, 18; Ex-1039, *6.

Claim 14

Guyot records not only a user's mouse and keyboard activity, but also usage information in the form of Internet sites that the subscriber has accessed. Ex-1041, 2:9-14; 2:36-42; 4:18-22; Ex-1007, ¶208-212. Guyot also describes recording Internet sites that the user has visited using Internet access software that may be

separate from but works with the client application software. *See* Ex-1041, 2:36-42, 4:20-22, 5:62-67; Ex-1037, 18; Ex-1039, *6; Ex-1007, ¶¶208-212.

Claim 15

Guyot discloses recording demographic information about the user. Guyot discloses "Subscriber Data" that "preferably includes, for each subscriber, the subscriber's identification information, a password assigned to the subscriber, and a personal profile of the subscriber." Ex-1041, 3:57-60; see also id., 4:15-24 (recording "Subscriber Statistics" such as Internet browsing information). This information constitutes demographic information about the user. Ex-1007, ¶213-214. This information is recorded, as it is "stored in the database 220." Ex-1041, 3:42-65; Ex-1007 ¶214; see also Ex-1041, 4:15-24, 3:42-65; Ex-1037, 12-15; Ex-1039, *5.

<u>Claim 16</u>

Guyot describes a client application that tracks Internet sites a user visits and uploads this *usage information* to a server (*recording*). Ex-1041, 2:36-42; 4:15-24; Ex-1007, ¶216-219. The information regarding the Internet sites a user visits is used (or obviously would be used) *to identify a behavior of the user*. Ex-1007, ¶218. The information is utilized to refine the subscriber's personal profile (Ex-

1041, 2:36-42, 4:15-24), which the system utilizes to target advertisements for the subscriber (*id.* at 3:60-61). Ex-1007, ¶218. The recorded information about the Internet sites that the subscriber has accessed thus constitutes *usage information to identify a behavior of the user*. Ex-1007 ¶218-219.

Claim 18

Guyot describes "display[ing] the advertisements on a display 330, preferably in a window that is continuously displayed...." Ex-1041, 5:24-27. Guyot further teaches an "application window 500 for displaying the advertisements [which] preferably includes...an advertising window 530." *Id.*, 5:28-34. Guyot also discloses that a subscriber can click on an Internet link within the advertisement window to fetch advertising material. *Id.*, 5:54-64. Both the Internet link and the advertisement fetched over the Internet would obviously be *displayed within [a] displayed web page*. Ex-1007, ¶220-222.

<u>Claim 19</u>

Guyot describes an "application window 500 for displaying the advertisements [which] includes...an advertising window 530." Ex-1041, 5:28-34. Guyot also discloses that a subscriber can click on an Internet link within the advertisement window to fetch advertising material over the Internet. *Id.*, 5:54-64.

Guyot thus discloses or renders obvious this limitation. Ex-1007, ¶223-225.

B. Claims 1-4, 6-8, 10, 13, 15-16, and 18-19 are obvious over Robinson, MacNaughton, and Angles (Ground 2)

1. Prior Art Overview

Robinson

Robinson involves "the display of advertising to users of an interactive communications medium." Ex-1004, 1:10-15. Robinson "is particularly useful with the World Wide Web." *Id.*

Robinson's invention is "based on the fact that people who have shown a tendency for similar interests and likes and dislikes in the past will usually continue to show a tendency for such similarities in the future." *Id.*, Abstract. So, Robinson suggests "determining the subject's community" and "determining which ads to show based on characteristics of the subject's community." *Id.*

To determine the subject's community, information is "gleaned from the activities of the individual in the interactive medium in question;" thus, "the information may involve such facts as the choices of Web sites the individuals have each visited." *Id.* Robinson tracks this collected information using "cookies" that are used to tie together information about a 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., 10:11-14.

Angles

Angles describes how, when a "consumer directs one of the consumer computers to access an offering existing in one of the content provider computers, an advertising request is sent to the advertisement provider computer." Ex-1006, Abstract.

2. Analysis

Claim 1

Limitation [1.0]

Robinson details "methods" for displaying advertising. Ex-1004, 1:10-20; Ex-1007, \P 278-280.

Limitation [1.1]

First, Robinson discloses *permitting a computer user* to *access* devices *via a network* because it "involves the display of advertising to **users**" on the "World Wide Web" and describes accessing "**the Internet**." Ex-1004, 1:11-24; Ex-1007, ¶282.

Second, Robinson's user accesses *servers*. Information on the World Wide Web is hosted by servers, and Robinson's methods are "implemented by programming them into functions incorporated within Web Server software." Ex-

1004, 19:27-33; see also id., 9:8-9; Ex-1007, ¶283.

Limitation [1.2]

The combined teachings of Robinson and MacNaughton render obvious this claim limitation.

Limitation [1.2.1]

Robinson's technique includes "[t]racking the user by means of software running on the user's machine" and Robinson describes that the "user could download an application or other type of software...which could track his activities and communicate them to the central database." Ex-1004, 11:14-21. Robinson's description of downloading software teaches transferring a copy of software to a computer associated with the computer user. Ex-1007, ¶286.

Limitation [1.2.2]

Robinson's software is "running on the user's machine" and in one example is an "Internet Screensaver"; Robinson also contemplates that the "Internet Screensaver does not necessarily have to be a separate piece of software from a Web browser." Ex-1004, 11:38-40, 12:43-55. Thus, Robinson contemplates downloading a combined screensaver and Web browser software. Ex-1007, ¶287.

Robinson also explains that "a particular Web page may have an area reserved for advertisements." Ex-1004, 2:2-8; see also 4:8-14. Robinson also explains that the downloaded application "could track his activities" (Ex-1004, 11:18-21) and that "a Web user's actions can be tracked over time" (id., 1:38-39). Because the downloaded software (e.g., a combined browser and screensaver) would be used for these actions, Robinson teaches this limitation. Ex-1007, ¶288-289. Thus, Robinson's downloaded software is configured to run on the computer to display advertising content and record computer usage information associated with utilization of the computer in the form of the Web user's actions. Ex-1007, ¶288-290.

Limitation [1.2.3]

MacNaughton teaches this limitation for the same reasons discussed above in Ground 1. Ex-1022, 1:8-17, 9:52-56, 9:17-26; Ex-1007, ¶292.

MacNaughton is analogous art, as it is pertinent to at least one problem faced by the inventor: creating software to provide messaging capabilities among different users. *See* Ex-1001, 15:57-16:7. And, a POSITA would have been motivated to combine MacNaughton's teachings, because it provides explicit motivations, as it describes "enhancing a computer user's Internet browsing experience by determining a user's preferences and facilitating the user's interaction with a

community of users." Ex-1022, 1:8-17. A POSITA would have recognized an enhanced browsing experience as desirable (*see id.*, 3:2-5), and that such a desirable enhancement to Robinson's browser would have been beneficial to the company offering Robinson's browser, as it would have provided an additional incentive to users to download Robinson's browser, consistent with Robinson's objectives. Ex-1007, ¶293-297. Further, a POSITA would have recognized a reasonable expectation of success in incorporating MacNaughton's teachings, as MacNaughton provides an example application of its teachings in the context of Netscape Navigator, which is also referenced throughout Robinson. Ex-1007, ¶295.

Limitation [1.2.4]

Robinson teaches when the program runs on the computer such that one of a number of unique identifiers is recorded by the software. Ex-1007, ¶298-300Robinson acknowledges there "has to be a mechanism for re-identifying a user from session to session" and its "preferred embodiment involves using the Netscape Navigator's cookie mechanism." Ex-1004, 9:36-39. Robinson thus employs a "Tracking Cookie" whose "value" is generated either by incrementing the last value by one or by "a random number generator"; additionally, Robinson states the "Tracking Cookie will be used to re-identify that user." *Id.*, 10:19-26; *see also id.*, 8:42-44. The value of the tracking cookie teaches a *unique identifier* as it is used for

"re-identifying a user from session to session." *Id.*, 9:36-37. Further, the cookie having the unique value, or *unique identifier[]*, is *recorded by the software*, as Robinson discloses that cookies "are stored on the consumer's hard disk" and a POSITA would have recognized that this storing is performed by the browser. *Id.*, 2:51-53.

Thus, Robinson and MacNaughton render obvious limitation [1.2]. Ex-1007, ¶¶285-301.

Limitation [1.3]

As noted above, Robinson uses the Tracking Cookie to identify a user from session to session, and describes creating the value of the Tracking Cookie using an incrementing counter or random number generator. *See* Ex-1004, 9:36-10:26, 8:42-44. Creating the Tracking Cookie's value associated with the user of the computer discloses *determining a unique identifier associated with the computer* at least because the cookie would be capable of identifying the computer associated with the computer user. Ex-1007, ¶¶302-307.

A POSITA would have recognized that Robinson's use of cookies was applicable to its various implementations, because the "cookie mechanism provides a very high level of security" and the "cookie mechanism is not required, but does have advantages." Ex-1004, 8:40-50, 9:38-44, 10:44-45; Ex-1007, ¶308. Further,

Robinson's cookie "is the one and only way information stored on a central database is associated with that user." Ex-1004, 8:41-44. Robinson's use of a cookie as an identifier is also consistent with the '411 Patent, which explains that a "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." Ex-1001, 22:43-46; see also Ex-1037, 19-20, Ex-1039, *6 n. 5.

Robinson also explains that the *identifier uniquely identifies information sent* from the computer to the one or more servers. The "cookie…is the one and only way information stored on a central database is associated with that user." Ex-1004, 8:41-44. Thus, when Robinson describes a browser "send[ing] tracking information to the central database" (*id.*, 11:5-10), a POSITA would have understood such *information* to include the cookie's information (i.e., the *unique identifier*), so that the information stored on the central database can be associated with the user. Ex-1007, ¶¶309-311.

Limitation [1.4]

Robinson sends "tracking information to the central database" including "the URL of each page visited and the amount of time spent there." Ex-1004, 11:5-10, see also id., 10:8-22. This information is the computer usage of the computer because it represents that the user used the computer to access various websites. Ex-

Limitation [1.5]

Robinson contemplates "a number of possible ways to track users," one of which is by "[u]sing bookmark files already stored on disk." Ex-1004, 8:62-63, 12:56-67. A POSITA would have recognized a bookmark file to be a *user demographic database associated with the computer user* because such a bookmark file is a data set stored on the computer of the user. Specifically, such bookmark files include a group of links to "the sites the user visited and liked enough to want to be able to easily visit again" (*id.*, 12:59-60), and a POSITA would have recognized the Netscape bookmark file to take the form of a HTML page with links to each of the user's bookmarked pages stored on the user's computer. Ex-1007, ¶316.

The interpretation of a bookmark file as a *user demographic database* is consistent with the Patent Owner's arguments during prosecution. As noted in the Prosecution History section (§IV.C), limitations from prosecution claim 14 were incorporated into the independent claim to overcome prior art rejections. These limitations recited, *inter alia*, "retrieving information **from an address book on the computer...**" (Ex-1002, 167) but the language was broadened from "an address book" to "a user demographic database". *See also id.*, 172 (Patent Owner explaining that the "feature of claim 14" was added to the independent claim). Thus, while "an

address book on the computer" of the user is one example of the recited user demographic database associated with the computer user, a POSITA would have recognized other similar data sets that are on the user's computer as falling within this claim term; for example, given the '411 Patent's definition of a "data set" as including a "group of data items; for example, links, keywords, or entries in an address book" (Ex-1001, 4:21-22), a POSITA would have recognized a group of links (e.g., a bookmark file) as also corresponding to a user demographic database associated with the computer user. Ex-1007, ¶¶317-318. This is also consistent with other portions of the '411 Patent that describe "demographic information" as including "information regarding web sites visits" (Ex-1001, 8:39-45) and examples that describe "user-specific information, including...bookmark lists" that are "stored locally on client computer 40 and reported back to server 22" (id., 23:32-37). See also id., 9:31-34 (describing a user profile as including bookmarks), 9:44-51 (describing updating of bookmarks), 23:13-29 (describing access to bookmark lists), 27:24-34 (describing a user registration module that includes network bookmarks support). Thus, Robinson's bookmark files on the user's computer render obvious a user demographic database associated with the computer user. Ex-1007, ¶¶315-320.

Robinson also renders obvious *retrieving information* from the bookmark file.

Robinson describes, for example, the WebHound website that uses "bookmark files

filtering." Ex-1004, 13:1-4. A POSITA would have recognized based on this disclosure that the WebHound service operated by providing the bookmark file information to the WebHound website, which corresponds to the WebHound website *retrieving information* from the user's bookmark file. Ex-1007, ¶321.

Further, while Robinson acknowledges that "there is currently **no automated** way that a Web site can acquire the content of a user's bookmark file" (Ex-1004, 13:5-7) and thus, there was perhaps (at Robinson's filing) no automated method of *retrieving information* from the user's bookmark file, a POSITA would have recognized at least that manual methods of *retrieving information* from the user's bookmark file did exist, which also teaches *retrieving information from a user demographic database*. Indeed, a POSITA would have recognized that uploading a user's bookmark file to a remote site was well-known. Ex-1007, ¶¶322-323. Further, Robinson contemplates automatic methods (e.g., Java applets) of obtaining the bookmark file, which would have been known. Ex-1004, 13:8-11; *see also* Ex-1007, ¶¶322-324.

⁷ Even if an automated method were required, such would have been obvious as a matter of law. *See In re Venner*, 262 F.2d 91, 95 (CCPA 1958).

Limitation [1.6]

As described above, one method of obtaining tracking information in Robinson includes retrieving the user's bookmarks file. Robinson also describes that tracking information for users is "stored on a central database" using the system's "central server machine." Ex-1004, 8:40-50. Thus, the central server machine stores the user's bookmarks and would have obviously done so *in memory*. Ex-1007, ¶325-329.

Limitation [1.7]

Robinson explains that tracking "information stored on a central database is associated with" a user via the "cookie." Ex-1004, 8:42-44, Abstract. By describing that information in the central database (like the retrieved user bookmark file) is associated with the user using the cookie, Robinson renders obvious this limitation. Ex-1007, ¶330-334.

Limitation [1.8]

Robinson describes that it "determin[es] the subject's community, and determin[es] which ads to show based on characteristics of the subject's community." Ex-1004, Abstract. Thus, Robinson discloses *selecting an advertisement*. Ex-1007, ¶336. Robinson further explains that "[w]hen a Smart Ad Box appears on a page, a user viewing that page will see an ad which is targeted to

that particular user," which will "exist in a fixed region on the screen." Ex-1004, 4:44-50. Thus, Robinson discloses that the advertisement is to be displayed on the computer. Ex-1007, ¶337.

Robinson further renders obvious that the selection is based at least on the usage of the computer together with information associated with the unique identifier identifying the computer. Robinson explains that the "information used to determine whether a given individual should be in the subject's community is gleaned from the individual's activities in the interactive medium" and it also explains that the "system derives information from the activities of the subject" and then "determines a community of the subject using all or a portion of the information." Ex-1004, Abstract, 3:64-67. Thus, Robinson uses the usage of the computer to determine a community of the subject, and describes determining "which of the one or more advertisements to present to the subject based on the subject's community" and therefore teaches the selection based at least on the usage *of the computer*.⁸ Ex-1007, ¶338.

⁸ Alternatively, the usage of the computer could correspond to the user's act of visiting a webpage with a Smart Ad Box. Such a webpage visit is an element recorded as usage of the computer and thus, in this scenario, the advertisement is selected based on the usage of the computer together with information associated

The community of the subject, in one example, takes the form of a "list of similar users," which can also include "a number representing the degree of likely similarity of interests." Ex-1004, 15:21-28. This information is associated with the unique identifier identifying the computer because Robinson describes that the cookie is used to tie together in a database pertinent information about a user. See, e.g., id., Abstract, 8:42-44. Thus, for example, in a database, the cookie value would be used as a key for the user's record, with the list of similar users as data elements associated with the key (e.g., in a database row). Robinson again states that the "system determines which of the one or more advertisements to present to the subject based on the subject's community." Id., 3:67-4:2. Thus, Robinson selects an advertisement based on the user's community (i.e., information associated with the unique identifier identifying the computer in a database), which is determined based on usage of the computer (the user's Web activity or visiting a webpage with a Smart Ad Box). Ex-1007, ¶¶339-340.

Robinson also describes selecting an advertisement where users "have supplied some, but not all, of any requested demographic data" (Ex-1004, 16:39-40)

with the unique identifier identifying the computer because the community is still used to select the ad, and the advertisement selection is triggered by the usage of the computer. Ex-1007, ¶341.

and earlier describes the process whereby "users can enter their demographic data" (id., 6:54-55). A POSITA would have recognized that, like other data related to a user, this demographic data is associated with the unique identifier identifying the computer in a database. In this example, the selection of an advertisement would likewise be based both on the usage of the computer to discern the community of the user (e.g., demographic data that the user did not supply) together with information associated with the unique identifier identifying the computer (e.g., the demographic data that the user did supply) so that, "if the advertiser has given information which is stored in the system about what the target audience for an ad is, then the software can check to see which ads are most highly targeted for Joe" (i.e., selecting an advertisement). Id., 16:20-23; Ex-1007, ¶342.

Limitation [1.9]

Robinson explains that "[w]hen a Smart Ad Box appears on a page, a user viewing that page will see an ad which is targeted to that particular user." Ex-1004, 4:44-46. A POSITA would have understood that the user's request for the page on which the Smart Ad Box appears renders obvious *a request for an advertisement from the computer accessing the web page* that is *receive[d]* from the user's computer. Ex-1007, ¶345.

As Dr. Houh explains, this is based on the POSITA's knowledge of recognized implementations for providing advertisements targeted to the user:

(1) the user's browser requests a webpage and receives a webpage with a reference to a specific advertisement and, upon receipt, issues a separate request for the advertisement using the reference; or (2) the user's browser requests a webpage with a reference to an advertisement server (e.g., a URL) and, upon receipt, issues a request to the advertisement server using the reference. Ex-1007, ¶346-349. Both implementations were known, and both teach receiving a request for an advertisement from the computer accessing the web page. Ex-1007, ¶350-353; see also Uber Techs., Inc. v. X One, Inc., 957 F.3d 1334, 1339-40 (Fed. Cir. 2020) (where a POSITA would have had two predictable choices for performing a particular limitation, §103 bars patentability of both variations); Spectra-Physics, Inc. v. Coherent, Inc., 827 F.2d 1524, 1534 (Fed. Cir. 1987) ("A patent need not teach, and preferably omits, what is well known in the art.").

Additionally, Angles demonstrates that at least the second implementation was well-known.⁹ Angles explains that a "content provider transmits an electronic document to the consumer. Embedded within the electronic document is a[n] advertisement request. When the consumer's computer displays the electronic document, the embedded advertisement request directs the consumer computer to communicate with an advertisement provider." Ex-1006, 2:59-3:5. Thus,

⁹ The '411 Patent also admits this teaching was known. See, e.g., Ex-1001, 2:8-15.

Angles teaches receiving a request for an advertisement from the computer accessing the web page.

Angles is analogous art: it describes "delivering customized advertisements within interactive communications systems." *See* Ex-1006, 1:9-12, 1:21-33. A POSITA reviewing Robinson would have been motivated to incorporate Angles' teachings because it provides implementation details for Robinson's targeted advertising system. For example, a POSITA reviewing Robinson would have appreciated that advertisements should be delivered to a user on a webpage, and that the technical details for causing such delivery were well-known; Angles provides express disclosure of those details and guides a POSITA with flow charts and diagrams depicting communications between computing devices to deliver targeted advertising. *See* Ex-1007, ¶354-357

Thus, combining the teachings would have been no more than combining prior art elements according to known methods to yield predictable results. A POSITA could have combined Robinson's and Angles' elements by known methods, e.g., software programming of the Robinson browser and webpages according to Angles' teachings of embedded advertisement requests; in combination, each prior art element performs the same function as previously. Furthermore, the combination's results would have been predictable and a POSITA would have reasonably expected success: the combined teachings would deliver

advertisements to a computer upon a user requesting a webpage, exactly as described by both Robinson and Angles. Ex-1007, ¶358.

Additionally, a POSITA would have been motivated to incorporate Angles' solution for delivering advertisements to a user viewing a webpage as doing so would have been no more than choosing from a finite number of identified, predictable solutions with a reasonable expectation of success, and therefore Angles' solutions would have been obvious to try. As detailed above, a POSITA would have recognized a finite number of (e.g., two) equivalent solutions to the recognized problem of delivering advertising to a user viewing a webpage. A POSITA could have pursued each solution with a reasonable expectation of success, including the second implementation, as it is explicitly disclosed by Angles and a POSITA would have recognized that delivering advertisements as described by Angles would have been advantageous. Ex-1007, ¶¶346-360.

Limitation [1.10]

As noted in the analysis of limitation [1.9], *supra*, Robinson explains that "[w]hen a Smart Ad Box appears on a page, a user viewing that page will see an ad which is targeted to that particular user." Ex-1004, 4:44-50. And, as detailed according to the implementations detailed by Dr. Houh, the advertisement is *provid[ed]...for display* responsive to the browser's request. Ex-1007, ¶¶362-363.

This is again confirmed by Angles, which explains that "the advertisement provider **provides** a customized **advertisement**" (Ex-1006, 2:59-3:3) that is "**displayed to the consumer**." *Id.*, 8:62-67; Ex-1007, ¶364-365.

Accordingly, Robinson, MacNaughton, and Angles teach or suggest each and every limitation of claim 1 and render the claim obvious.

Claim 2

Robinson describes an example where users enter demographic data on a webpage, and that users can be "given the ability to modify their demographic data at any time." See Ex-1004, 6:54-58. This teaches using the unique identifier to acquire demographic information about the user because a POSITA would have understood that the demographic data (like other data about the user) is associated in a database with the user's unique identifier, and retrieving the data would include using the unique identifier to access the database so that the user can subsequently modify the demographic data as needed. Ex-1007, ¶371.

Robinson also collects data regarding the user's browsing habits to characterize the user and explains that such data is associated with a user identifier. *See supra* limitations [1.2]-[1.3]. The data is used to "make intelligent guesses about [the user's] demographic data." Ex-1004, 16:9-10. Thus, because the data associated with the identifier for the user is used to intelligently guess the user's

demographic data, Robinson teaches this limitation. Ex-1007, ¶¶368-370.

Claim 3

Robinson's "system determines which of the one or more advertisements to present to the subject based on the subject's community" (Ex-1004, 3:67-4:2) and Robinson also states that ads may be "selected **based on demographics** associated with the community" (*id.*, Abstract). Ex-1007, ¶373-374.

Claim 4

Claim 4 specifies that the collected "demographic information" contain certain required information. Claim 4 does not specify what this element is — it only specifies that some *required* element be collected before *transferring the copy* of the software to the computer associated with the computer user. Ex-1007, ¶376. Angles requires the user to go through a registration process and record demographic information prior to obtaining access to a client application. See Ex-1007, 3:18-23 ("consumer...registers with the advertisement provider by entering pertinent demographic information....In return,...the consumer is sent unique software...."); see also id., FIG.5. Thus, Angles teaches this limitation. Ex-1007, ¶¶377-381; Ex-1001, 2:42-55 ('411 Patent admitted prior art confirming this concept was known).

Claim 6

Angles discloses an "advertisement provider computer," which may be a "server" (Ex-1006, 13:21-46), and which includes "advertisement database 70" that "contains numerous advertisements" (*id.*, 15:32-35). Ex-1007, ¶¶382-384.

Claim 7

Angles "delivers the customized advertisement," and later, "if the consumer continues to view the electronic page 32, the advertising module 62 continues to update the customized advertisements 30 that are seen on the consumer's computer 12. For example, if a consumer views a particular electronic page 32 for more than a minute, the advertising module 52 can send a new customized advertisement 30." Ex-1006, 19:60-20:17. Thus, Angles renders obvious this limitation: at every minute of computer usage, a new customized advertisement is selected and transferred. Ex-1007, ¶385-389.

Claim 8

Robinson delivers advertising over the Internet, a *publicly-accessible global computer network*. See Ex-1004, 1:11-15; Ex-1001, 1:24-27; Ex-1007, ¶¶390-392.

Claim 10

Robinson's Tracking Script "creates" the Tracking Cookie, which is then "stored on the user's machine." Ex-1004, 10:8-26. A POSITA would have recognized that the server creates and then sends the Tracking Cookie to the user's machine (i.e., the user's machine download[s] the cookie); this was the standard practice of generating and storing cookies. See Ex-1007, ¶393-396.

Claim 13

Robinson describes that the "central database can be updated with...the current page" that the user is viewing and thus renders obvious *data regarding* information resources accessed by the computer over the network. See Ex-1004, 10:8-22; Ex-1001, 4:35-37; Ex-1007, ¶¶397-399.

Claim 15

Robinson explains that, based on the information it tracks, the "technique described here may incorrectly come to the conclusion that Joe is in his 30's when he's really in his 50's." Ex-1004, 16:31-33; *see also id.*, 6:54-57. Thus, Robinson renders obvious *recording demographic information about the user* (e.g., the user's estimated age or the user's entered demographic data). Ex-1007, ¶¶400-403.

Claim 16

Robinson explains that, based on the information it tracks (e.g., *recording usage information* as analyzed in limitation [1.2]), the "technique described here may incorrectly come to the conclusion that Joe is in his 30's when he's really in his 50's." Ex-1004, 16:31-33. Thus, Robinson describes *using said recorded usage information to identify a behavior of the user* in that the user (Joe) acts as if he is in his 30's instead of acting as if he is in his 50's. Ex-1007, ¶405. Robinson explains that "that erroneous conclusion would actually lead, in this case, to a better targeting of advertisements" and thus also renders obvious *targeting advertising to the user based upon the identified behavior*. Ex-1004, 16:33-35; Ex-1007, ¶¶406-407.

Claim 18

Robinson's "Smart Ad Box is an **area on a Web page...used to display Web advertising**." Ex-1004, 4:8-10; Ex-1007, ¶¶409-411.

<u>Claim 19</u>

Robinson's Smart Ad Box is an advertisement section of the displayed webpage. See Ex-1004, 4:8-10, 4:44-50 Ex-1007, ¶¶412-413.

C. Claim 5 is obvious over Guyot, MacNaughton, and Linsk (Ground 3) and is obvious over Robinson, MacNaughton, Angles, and Linsk (Ground 4)

Linsk describes a server that "retrieves demographic information associated with [a] requester" and customizes information (including advertising) to be displayed to the requester. Ex-1023, Abstract.

Claim 5

Linsk, which is in the same field of targeted advertising as the '411 Patent, discloses that "[d]emographic information about a requester is very useful to a web server in providing customized advertisements" and it "can include **geographic information about where the requester is located**." Ex-1023, 3:7-26. Linsk discloses an example in which a "web server[] uses the geographic information to provide geographically relevant material, such as advertisements, to the requester." *Id.*, 4:15-24. Thus, Linsk teaches *selection of the advertisement is further based on a location of the computer*. A POSITA would have been motivated to incorporate the teachings of Linsk of location-based advertising because it provides express motivation to do so; namely, Linsk acknowledges that geographic information allows for customization of advertising "based upon the location of the requester"

which "is very useful." *Id.*, 4:7-18¹⁰. Thus, a POSITA would have been motivated to incorporate these teachings with Guyot and would have expected success in doing so. Ex-1007, ¶230-232. For similar reasons, a POSITA would have been motivated to incorporate these teachings of Linsk with the system of Robinson and would have expected success in doing so; the combination therefore renders obvious this limitation. Ex-1007, ¶418-421.

D. Claims 9 and 14 are obvious over Robinson, MacNaughton, Angles, and Kobata (Ground 5)

Kobata describes a "system which detects demographics of a client including CPU power, hard disk space, applications installed" and other information for purposes of targeting advertisements. *See* Ex-1005, Abstract.

Claim 9

Robinson discloses that its "Tracking Cookie will be used to re-identify the

¹⁰ Robinson's expressed preference for not associating a cookie with a location (Ex-1004, 10:30-34), does not teach away from Linsk, as it does not discourage investigation into the use of location. *See Galderma Labs., L.P. v. Tolmar, Inc.*, 737 F.3d 731, 738 (Fed. Cir. 2013) (teaching away requires discouragement); Ex-1007, ¶422.

user," and that the user utilizes the software provided. Ex-1004, 10:23-26. Kobata, in the same field of targeted advertising, explains that "each client software has a unique serial number" (Ex-1005, 2:3-8), and a POSITA would have understood that the characteristic of being "unique" means that the identifier *identifies the copy of the software from among other copies of the software*. Ex-1007, ¶¶427-428.

A POSITA would have been motivated to incorporate this teaching of Kobata at least because the usage and desirability of unique identifiers for software were well-known. For example, a POSITA would have recognized that assigning a unique identifier to a copy of software to differentiate the copy from among other copies would have provided for diagnostics purposes: a software developer could use unique identifiers associated with software usage reports to determine the severity of a bug or other software defect, which would assist the developer in determining the need to repair the bug. Ex-1007, ¶¶429-430. Further, Kobata explains advantages of its unique serial number in that it permits frequent updating and "instant demographics of the particular user." Ex-1006, 2:8-10; Ex-1007, ¶¶429-430. A POSITA would have also recognized that Kobata's serial number is used in the same way as Robinson's unique Tracking Cookie value (i.e., to collect data about a user utilizing software and to target advertising to that user) and would have recognized that the Tracking Cookie value in Robinson could be used to identify the copy of the software from among other copies; a POSITA would have

expected success in using Kobata's teachings for the same reasons. Ex-1007, ¶¶428-432. Thus, Robinson and Kobata render obvious this limitation.

Claim 14

Kobata teaches collecting data regarding one or more software applications run on the computer that are not the software recited in claim 1. Specifically, Kobata describes "client software [] installed at each PC which can detect the infrastructure of the PC," which includes "the applications running or installed." Ex-1005, 1:64-2:15. Because Kobata describes the **software** as collecting information on the **applications** and uses different terms to refer to the two concepts, a POSITA would have recognized that Kobata collects information on one or more software applications run on the computer (i.e., the applications) aside from claim 1's software being configured to run on the computer (i.e., the software). Ex-1007, ¶¶433-436.

E. Claim 10 is obvious over Guyot, MacNaughton, and Robinson (Ground 6)

Claim 10

Robinson discloses this limitation as discussed in Ground 2's analysis of claim 10. *See* Ex-1007, ¶237.

A POSITA would have been motivated to combine Guyot with Robinson's

disclosure of a cookie mechanism that stores a cookie on the user's computer. Ex-1007, ¶¶235-244. In the '314 Patent's prior IPRs, the Federal Circuit affirmed the Board's conclusion that it would have been obvious to combine Guyot and Robinson, thus cancelling claim 15 of the '314 Patent that recited "providing a unique identifier" comprises "storing a cookie on the computer." Ex-1039, *6 n.5. The Board credited Dr. Houh's testimony in support of the combination. Ex-1034, 15; Ex-1007, ¶235.

As mentioned, Guyot teaches that "the distributed information network 100 is implemented on the Internet, with the server 200 and each of the subscriber system 300 having a unique proprietary identifier." Ex-1041, 3:18-22. Guyot's server also maintains a database containing "Subscriber Data" and "Subscriber Statistics" for each user. Ex-1041, 3:55-65, 4:15-23. Using Robinson's cookie stored locally on the user's computer, a POSITA would have been motivated to specify a unique cookie for each computer in order to distinguish each computer (subscriber system 300) from every other computer (subscriber system 300) in the network 100, as shown in Guyot's Figure 1. Ex-1007, ¶242. By uniquely identifying each computer, the server would be able to target different advertising to the same user based on the identity of the computer (e.g., work computer vs. home computer). Ex-1007, ¶242. In this way, targeted advertising is delivered to the computer based not only on the identity of the user, but also based on the computer the user happens to be using.

Ex-1007, ¶242.

A POSITA would have had a reasonable expectation of success in making this combination. Robinson states that cookies are stored on the client hard drive under CGI control (Ex-1004, 2:49-53), and a POSITA would have recognized CGI as well-known. *See, e.g.*, Ex-1046, 166-172 (original pagination). Thus, setting a cookie on a client computer that uniquely identifies the computer would have been well within the capabilities of a POSITA. Ex-1007, ¶¶243-244.

F. Claims 11-12 are obvious over Robinson, MacNaughton, Angles, and Gerace (Ground 7)

Gerace describes "targeting of appropriate audience based on psychographic or behavioral profiles of end users" which is "formed by recording computer activity and viewing habits of the end user." Ex-1012, Abstract; Ex-1007, ¶439.

Claim 11

Robinson discloses that a user may "log on to the Internet" (Ex-1004, 12:17-22) and describes a user that "logs in" (*id.*, 13:13-18). A POSITA would have recognized at the time of the '411 Patent that a user login to use software was well-known; for example, Gerace discloses a "program 31" that an end user logs onto to obtain information such as stock market data and sports information, akin to Robinson's software: "Upon an end user logging onto program 31...program 31

generates an initial screen view...for display to the end user." Ex-1012, 4:1-11. Thus, Gerace teaches the *software*, when run on the computer, requires a user login to use the software. Ex-1007, ¶¶441-443.

Gerace also describes that its program "records the user's selections and his viewing activity with respect to the [] information." Ex-1012, 4:11-12. To access such information, Gerace discloses that program 31 includes a "program controller 79" which, "in response to user login...checks with the user profiling member 73 to determine whether the user has in the past logged on to program 31 or is a new user." *Id.*, 4:36-39, 4:56-59. Gerace states "[i]n the latter case (a first time/new user), program controller 79 assigns a unique users computer ID upon user login." *Id.*, 4:66-67. Thus, Gerace's software associates a different unique identifier with each of a number of valid users of the software. Ex-1007, ¶¶444-445.

Gerace is analogous art to the '411 Patent and Robinson, as it is in the same field of endeavor of targeted advertising. *See* Ex-1012, 2:30-34; Ex-1004, Abstract. A POSITA would have been motivated to incorporate Gerace's teaching of requiring a user login to software and associating a unique identifier to the user upon login based on explicit motivations. Specifically, Gerace indicates that its system provides for "subject matter/content and presentation of advertisements [] to be customized to the end user's preferences due to the information tracked and recorded (i.e., the created user profile) by program 31." Ex-1012, 4:32-36. As an example, Gerace

describes customizing sports-related content based on the user's selection of a particular sport, team, or player. See id., 21:52-22:9. This capability to deliver customized content is enabled by providing a login facility to the Gerace software (which includes associating the unique users computer ID upon the first user login as detailed above). Ex-1007, ¶¶446-449. Thus, for example, incorporating Gerace's teachings would beneficially provide for delivery of customized content to users, which a POSITA would have recognized as having the potential to increase the number of downloads of Robinson's software, thereby motivating a POSITA to incorporate these teachings of Gerace. Ex-1007, ¶449. In one combination of the teachings, because Robinson describes the need to incentivize a user to download software, a POSITA would have recognized that Gerace's ability to provide customized content to a user could be offered as an incentive to cause users to download Robinson's software. Ex-1007, ¶¶449-453. Accordingly, a POSITA would have been motivated to incorporate the teachings of Gerace to provide customized content to users. *Id.* A POSITA would have also expected success in combining the teachings, as combining the teachings would have required no more than routine software programming. Ex-1007, ¶449.

Claim 12

As noted above, Gerace's software requires a user login to use the software.

See Ex-1012, 4:1-11. Gerace also describes that the user login is used to associate one of a number of unique identifiers with the computer usage information recorded by the software: the user's first login and assignment of a unique user's computer ID "enables user profiling member 73 to initialize tracking of viewing activity of the new user immediately following login." Ex-1012, 5:1-7; Ex-1007, ¶¶456-459. Additionally, program controller 79 "us[es] the user profiling member 73 to record the user's activities and thus build a psychographic/behavioral profile of the user" akin to Robinson's tracking user activities to determine demographic details. Id., 5:8-14. Thus, Gerace renders obvious that the user login is used to associate one of a number of unique identifiers with the computer usage information recorded by the software. A POSITA would have been motivated to incorporate this teaching of Gerace for the same reasons as set forth above with respect to claim 10; specifically, Gerace's explicit motivations would have motivated a POSITA to incorporate the teachings. Ex-1007, ¶460.

G. Claims 4 and 17 are obvious in view of Guyot, MacNaughton, and RFC1635 (Ground 8) and Claim 17 is obvious over Robinson, MacNaughton, Angles, and RFC1635 (Ground 9)

1. Overview of RFC1635

RFC1635 provides information about how to use the File Transfer Protocol (FTP), which is used on the Internet to transfer files from one computer (host) on the

Internet to another. Ex-1016, p. 1. A user of an FTP program must log into both hosts using an account and password to transfer a file between hosts. *Id.* RFC1635 further describes the use of anonymous FTP. *Id.* at 2.

In IPR2014-00039, the Board found that the combination of Guyot and RFC1635 rendered obvious claims 20-22 of the '314 Patent (Ex-1037, 20-22), which was affirmed by the Federal Circuit (Ex-1039, *7). The IPR2014-00039 final decision precludes BE Tech from arguing RFC1635 is not prior art.

2. Publication Date of RFC1635

RFC1635 is prior art under §102(b). The Index for all Requests for Comment ("RFC"), published by the Internet Engineering Task Force ("IETF") since 1969 through 2020, is available at https://tools.ietf.org/rfc/index (Ex-1055). The Index lists all RFCs from RFC1 through RFC8944 and provides the following "key to citations": "Following the RFC number are the title, the author(s), and the publication date of the RFC. Each of these is terminated by a period." *Id.* The Index provides the following citation for RFC1635:

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RFC1635 How to Use Anonymous FTP. P. Deutsch, A. Emtage, A. Marine. May
1994. (Format: TXT, HTML) (Also FYI0024) (Status: INFORMATIONAL)
(DOI: 10.17487/RFC1635)
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Ex-1055, p. 114.

Based on the Index's key to citations, May 1994 is the publication date of

RFC1635. See also Ex-1056 (citing RFC1635), Ex-1057.

3. Analysis

Claim 4

Claim 4 specifies the collected "demographic information" contain certain required information but does not specify what this element is. It only specifies that some "required" element be collected before "transferring the copy of the software to the computer associated with the computer user." Ex-1007, ¶250.

Guyot records demographic information to the user's personal profile "by having the subscriber provide answers to a questionnaire." Ex-1041, 3:57-65. Guyot does not specify required information before access to transfer client software; however, requiring some element of demographic information to be collected in the questionnaire of Guyot before access to transfer the client software would have been an obvious design choice to a POSITA. Ex-1007, ¶251. Indeed, the purpose of prompting a user for demographic information in Guyot is to enable the delivery of targeted advertising. Ex-1007, ¶251-252. It would have been desirable to require certain information about a user before transferring the software to ensure that the system has all information it needs to target advertising to that user. Ex-1007, ¶252.

Claim 4 further specifies that the "transferring" step occurs after the

"determining" step, but this does not impart any patentable distinction. Guyot does not state that the step of downloading the client application (or a new version of the client application) must occur only before or only after answers are provided by a user to build or update the user's personal profile. Instead, Guyot shows these steps may be performed in either sequence. For example, Guyot shows that a user may download updated versions of the client software after that user has created a personal profile. Ex-1041; FIG.7, 9:37-55; Ex-1007, ¶253-254. Similarly, Guyot shows that a user may update the personal profile after downloading the client software. Ex-1041; 7:32-37; Ex-1007, ¶253-254.

A POSITA would have considered the order in which demographic information is collected in relation to the software download access for the client to have been an obvious design choice. Claim 4 is thus analogous to the process addressed in *KSR v. Teleflex*, 127 S.Ct. 1727, 1742 (2007), which the Court found unpatentable because it involved simply choosing from a finite number of obvious options to try, with each option being expected to work.

Moreover, performing steps in the order specified by claim 4 – where demographic information is requested in response to a download request, and is followed by provision of download access – was conventional and indeed the typical sequence followed by client-server systems, such as FTP servers in the anonymous FTP process illustrated in, for example, RFC1635 (Ex-1016); *see also* Ex-1007,

¶¶254-255. The Board found that RFC1635 teaches "prompting a user for information prior to providing download access." Ex-1037, 22; Ex-1016, p. 1; Ex-1037, 20-22; Ex-1029, 21-22.

Thus, a POSITA would have found it obvious to perform the process shown in Guyot by requiring a user to provide answers to a questionnaire or to update their user profile – during which demographic information about a user would be captured and transferred to the server – before the client application (or a new version of it) was provided to the user. Ex-1007, ¶255. The POSITA would have considered this difference to be an obvious design choice especially considering Guyot and conventional client-server protocols, such as the anonymous FTP protocol in RFC1635. Ex-1007, ¶255. Thus, a POSITA would have considered claim 4 to have been obvious. Ex-1007, ¶248-256.

Claim 17

Limitation [17.1]

As discussed above in the analysis of limitation [1.2.1], Guyot teaches that *the user is permitted...download access to the software*. Ex-1041, 5:18-23. A POSITA would have recognized that multiple options were available for a user to download Guyot's software; for example, a POSITA would have recognized anonymous FTP as such a known option based on its widespread use by 1998. Ex-1007, ¶257-262.

Anonymous FTP practice was so well-known that the IETF Network Working Group published a FYI about it. *See* Ex-1016; *see also* Ex-1013, 3:67-4:1. Thus, a POSITA would have been motivated to incorporate this teaching of RFC1635, which in combination with Guyot, renders obvious giving the user *anonymous download access to the software*. Ex-1007, ¶¶257-262; Ex-1037, 20-22; Ex-1039, *7.

Robinson likewise discloses that the "user could download an application or other type of software" and thus renders obvious the user is permitted...download access to the software. Ex-1004, 11:11-21. As above, a POSITA would have recognized anonymous FTP as a known option for the user to download the application, based on its widespread use by 1998. Ex-1007, ¶¶466-470. Thus, a POSITA would have been motivated to incorporate this teaching of RFC1635, which in combination with Robinson, renders obvious giving the user anonymous download access to the software.

Combining RFC1635's teachings of anonymous FTP and using it to obtain Robinson's software would have at least been no more than applying known work in the Internet field (i.e., using anonymous FTP to obtain information) to Robinson's system of obtaining software, prompted by the market factors of well-known use and acknowledgment of this technique by the industry. Ex-1007, ¶470. As Dr. Houh

explains, it would have also been obvious to try the use of anonymous FTP, as in this context there were a finite number of identified, predictable solutions for a computer user to obtain software using the Internet. Ex-1007, ¶471. Thus, a POSITA would have been motivated to incorporate the teachings of RFC1635, which in combination with Robinson, renders obvious this limitation.

Limitation [17.2]

Guyot describes a client application that tracks which Internet sites a user visits. Ex-1041, 2:36–42, 4:19-23. As discussed in connection with limitation [1.2.2], the Internet sites a user has visited is *computer usage information*. Guyot further discloses that this computer usage information is transferred to a server. Ex-1041, 2:36–42; 4:19-23.

The term *demographically-relatable* is not defined in the '411 Patent. In the prior '314 Patent IPR proceedings, the Federal Circuit affirmed the Board's conclusion that "demographic information means 'collected information about a subscriber, such as Internet sites accessed, and this information does not identify the subscriber." Ex-1039, *3; *id.*, *5 (affirming the Board's finding that "Internet usage information is a behavior characteristic, and that Guyot teaches the use of collected characteristic information to target advertising to subscribers, within the scope of 'providing demographically-targeted advertising to a computer user.").

Thus, Guyot renders obvious this limitation. Ex-1007, ¶263-268.

Robinson's application tracks a user's activities, and specifically, Robinson discloses that the "system's **central server machine** can track a user." Ex-1004, 8:47-50. Robinson further describes that the tracking information can show that users are "remarkably similar in the sites they've chosen to visit; this would be indicative of a high degree of similarity of interests" and its software "can make intelligent guesses about Joe's demographic data." *Id.*, 15:43-50, 16:9-10. Thus, Robinson's tracking information, which is *computer usage information*, is *provided* to *the one or more servers* and is *demographically-relatable*, as the information is used to determine the demographics of the user. Ex-1007, ¶¶472-474.

VII. SECONDARY CONSIDERATIONS

Petitioner is unaware of any allegation of secondary considerations that would rebut Petitioner's strong showing of obviousness.

VIII. THE BOARD SHOULD NOT EXERCISE ITS DISCRETION TO DENY INSTITUTION UNDER 35 U.S.C. §325(D)

None of the references applied above were cited during the prosecution of the '411 Patent. And, although the '411 Patent claims priority to multiple previous

applications, and certain references applied herein may have been cited in the prosecution of those applications, under the statutory framework, to support the exercise of discretion, the art and arguments "must have been previously presented to the Office during proceedings pertaining to the challenged patent." Adv. Bionics, LLC v. Med-El Elektromedizinische Geräte GmbH, IPR2019-01469, Paper 6 at 7 (PTAB Feb. 13, 2020) (precedential). The panel in Advanced Bionics explained further that "[p]reviously presented art includes art made of record by the Examiner, and art provided to the Office by an applicant, such as on an Information Disclosure Statement (IDS), in the prosecution history of the challenged patent. The proceedings in which the art was previously presented include, for example: examination of the underlying patent application, reexamination of the challenged patent, a reissue application for the challenged patent, and AIA post-grant proceedings involving the challenged patent." Id. In other words, the Advanced Bionics panel recognized that prior art considered in, for example, a parent application to which a challenged patent claims priority, is not art that was "previously presented to the Office" without action by the applicant or the examiner to make of record such art. Here, the applicant's IDS did not list any of the applied references, nor did the examiner consider any references except for those listed on the face of the patent. Thus, there was no previous presentation of the references cited in this Petition, and no basis for the Board to exercise its discretion to deny the

Petition under §325(d).

Even if the Board determines that prior art previously presented to the Office during the prosecution of the '411 Patent parent application(s) may be considered in a §325(d) analysis, the examiner did not meaningfully consider the other references during the prosecution of the '440 Patent (e.g., Angles and Guyot), and did not consider Robinson, MacNaughton, Linsk, Kobata, and Gerace at all.

IX. THE BOARD SHOULD NOT EXERCISE ITS DISCRETION TO DENY INSTITUTION UNDER 35 U.S.C. §314(A)

Although there is a parallel district court proceeding involving the '411 Patent, the Board should not exercise its discretion to deny institution. *See NHK Spring Co., Ltd. v. Intri-Plex Techs., Inc.*, IPR2018-00752, Paper 8 (PTAB Sept. 12, 2018) (precedential); *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential).

Most notably, the parallel proceedings are not at an "advanced state" — Patent Owner's amended complaints alleging infringement were filed on February 11, 2021, just days before the instant Petition. Ex-1043-Ex-1044. The litigations are thus at their earliest possible stage—neither defendant has filed an answer, there is no schedule for discovery, and no trial date set. Five *Fintiv* factors weigh against exercising discretionary authority to deny institution; one factor (at worst) is neutral. The Board should thus decline to exercise its discretion to deny institution.

Factor	Weighs Against	Weighs Neutrally
1	Petitioner intends to request a stay	
	following institution (if not earlier),	
	which is likely to be granted. See Ex-	
	1060 (Judge Stark stay statistics)	
2	No trial date is set. Judge Stark's	
	median time to jury trial is 38.8	
	months, meaning that trial is unlikely	
	to occur before 2023, well after a final	
	written decision would be expected.	
	See Ex-1062.	
3	The parties have invested little in the	
	parallel proceeding. Neither	
	defendant has filed an answer, no	
	infringement/invalidity contentions	
	have been exchanged, no claim	
	construction positions have been	
	taken, and no discovery has occurred.	
4	No present overlap between petition	
	and parallel proceeding. Only	
	invalidity briefing under §101 has	
	occurred; no prior art invalidity	
	contentions have been exchanged.	
5		Twitter and Google are
		defendants.
6	The merits support institution. The	

petition's grounds are particularly	
strong. As detailed above, the patent	
shares many features with the '314	
Patent that the Board and Federal	
Circuit already found unpatentable.	
There is a strong likelihood of a	
similar ruling here.	

X. CONCLUSION

Petitioner asks that the Patent Office order an *inter partes* review trial for claims 1-19 and then cancel these claims as unpatentable.

Respectfully submitted,

February 24, 2021 / Andrew S. Baluch /

Andrew S. Baluch Counsel for Petitioner Registration No. 57,503

XI. CERTIFICATE OF WORD COUNT

Under 37 C.F.R. §42.24, the undersigned attorney for the Petitioner declares that the argument section of this Petition (Sections II-X) has 13,821 words, according to the word count tool in Microsoft WordTM.

/ Andrew S. Baluch /
Andrew S. Baluch
Counsel for Petitioner
Registration No. 57,503

APPENDIX OF CHALLENGED CLAIMS

Claim 1

- [1.0] 1. A method comprising:
- [1.1] permitting a computer user to access one or more servers via a network;
- [1.2.1] transferring a copy of software to a computer associated with the computer user, [1.2.2] the software being configured to run on the computer to display advertising content and record computer usage information associated with utilization of the computer, [1.2.3] the software being configured to allow user messaging capabilities between the user and one or more users, [1.2.4] wherein when the program runs on the computer such that one of a number of unique identifiers is recorded by the software;
- [1.3] determining a unique identifier associated with the computer, wherein the identifier uniquely identifies information sent from the computer to the one or more servers;
 - [1.4] determining the computer usage of the computer;
- [1.5] retrieving information from a user demographic database associated with the computer user;
- [1.6] storing the retrieved information in memory associated with one or more servers;
 - [1.7] associating the retrieved information with the user;

- [1.8] selecting an advertisement to be displayed on the computer, the selection based at least on the usage of the computer together with information associated with the unique identifier identifying the computer;
- [1.9] receiving a request for an advertisement from the computer accessing the web page; and
- [1.10] providing the selected advertisement for display on the computer in response to the received request.

Claim 2

2. The method of claim 1 further comprising using the unique identifier to acquire demographic information about the user.

Claim 3

3. The method of claim 2 wherein the selection of the advertisement is further based on the demographic information.

Claim 4

4. The method of claim 3 wherein the transferring a copy of software to a computer associated with the computer user further comprises determining that the demographic information includes certain required information and, upon such a determination, transferring the copy of the software to the computer associated with the computer user.

Claim 5

5. The method of claim 2 wherein the selection of the advertisement is further based on a location of the computer.

Claim 6

6. The method of claim 1 wherein the advertising content is stored on the one or more servers.

Claim 7

7. The method of claim 1 further comprising periodically selecting and transferring additional advertising content to the computer in response to additional usage of the computer by the user.

Claim 8

8. The method of claim 1 wherein the network is a publicly-accessible global computer network.

Claim 9

9. The method of claim 1 wherein the unique identifier identifies the copy of the software from among other copies of the software.

Claim 10

10. The method of claim 1 further comprising downloading, to the computer, a cookie containing a unique identifier.

Claim 11

11. The method of claim 1 wherein the software, when run on the computer, requires a user login to use the software and associates a different unique identifier with each of a number of valid users of the software.

Claim 12

12. The method of claim 1 wherein the software, when run on the computer, requires a user login to use the software and uses the user login to associate one of a number of unique identifiers with the computer usage information recorded by the software.

Claim 13

13. The method of claim 1 wherein the computer usage information includes data regarding information resources accessed by the computer over the network.

Claim 14

14. The method of claim 1 wherein the computer usage information includes data regarding one or more software applications run on the computer.

Claim 15

15. The method of claim 1 further comprising recording demographic information about the user.

<u>Claim 16</u>

16. The method of claim 1 further comprising: recording usage information;

using said recorded usage information to identify a behavior of the user; and targeting advertising to the user based upon the identified behavior.

Claim 17

[17.1] 17. The method of claim 1 wherein the user is permitted to anonymous download access to the software and [17.2] the one or more servers is provided demographically-relatable computer usage information.

Claim 18

18. The method of claim 1 wherein the selected advertisement is displayed within the displayed webpage.

Claim 19

19. The method of claim 1 wherein the selected advertisement is displayed within an advertisement section of the displayed webpage.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Twitter, Inc. and Google LLC

Petitioner

§

Petition for Inter Partes Review

U.S. Patent 8,549,411

§

CERTIFICATE OF SERVICE

The undersigned certifies, under 37 C.F.R. §§42.105 and 42.6, that service was made on the Patent Owner as detailed below.

Date of service February 24, 2021

Manner of service Federal Express

Documents served Petition for Inter Partes Review, including Exhibit List;

Exhibits 1001 through 1062

Persons served Reising Ethington P.C.

755 W. BIG BEAVER ROAD

SUITE 1850

TROY MI 48084

/David L. McCombs/ David L. McCombs Counsel for Petitioner

Registration No. 32,271