

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner,

v.

BRODTI INC.,
Patent Owner.

IPR2025-00472
Patent 11,416,898 B2

Before ARTHUR M. PESLAK, STEPHEN E. BELISLE, and
BRIAN P. MURPHY, *Administrative Patent Judges*.

BELISLE, *Administrative Patent Judge*.

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

I. INTRODUCTION

Google LLC (“Petitioner”) filed a Petition (Paper 2, “Pet.”) requesting an *inter partes* review of claims 1–20 (“Challenged Claims”) of U.S. Patent No. 11,416,898 B2 (Ex. 1001, “the ’898 patent”). BrodTi Inc. (“Patent Owner”) did not file a Preliminary Response.¹ Paper 12 (“Patent Owner waives the filing of a Preliminary Response.”); Paper 10 (Patent Owner’s Mandatory Notices). We instituted an *inter partes* review of claims 1–20 of the ’898 patent on all grounds of unpatentability alleged in the Petition. Paper 21 (“Institution Decision” or “Dec.”).

After institution, Patent Owner filed a Response. Paper 35 (“PO Resp.”). Petitioner filed a Reply. Paper 39 (“Pet. Reply”). Patent Owner filed a Sur-reply. Paper 45 (“PO Sur-reply”). We held an oral hearing in this case on April 21, 2026, and a transcript of the hearing is included in the record. Paper 48 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6 (2024). Under the applicable evidentiary standard, Petitioner has the burden to prove unpatentability by a preponderance of the evidence. *See* 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d) (2025). “Preponderance of the evidence means the greater weight of evidence, evidence which is more convincing than the evidence which is offered in opposition to it.” *United States v. C.H. Robinson Co.*, 760 F.3d 1376, 1383 (Fed. Cir. 2014) (internal quotations omitted). This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73.

¹ Patent Owner and Petitioner filed discretionary denial briefs (Paper 11; Paper 15), and Patent Owner’s request for discretionary denial was denied (Paper 19).

For the reasons discussed below, we determine Petitioner has established by a preponderance of the evidence that claims 1–20 of the ’898 patent are unpatentable.

II. BACKGROUND

A. Real Parties in Interest

Petitioner identifies itself as a real party in interest. Pet. 1.

Patent Owner identifies itself as a real party in interest. Paper 10.

B. Related Matters

Petitioner identifies the following district court actions as related matters: (1) *BrodTi Inc. v. Google LLC*, No. 1:24-cv-00173-JCB (D. Del.), which has been *stayed* since August 15, 2025; and (2) *BrodTi Inc. v. Google LLC*, No. 6:24-cv-00058-RP (W.D. Tex.), which was voluntarily dismissed. Pet. 1; Paper 10.

Patent Owner also submits that the ’898 patent claims the benefit of U.S. Patent No. 10,325,290 B2, issued June 18, 2019, and U.S. Patent Application No. 11/274,706 (abandoned). Paper 10.

C. The ’898 Patent

The ’898 patent is titled “Methods, Systems, and Apparatus For Financing Projects,” and issued August 16, 2022, from U.S. Application No. 16/422,106, filed May 24, 2019. Ex. 1001, codes (10), (21), (22), (45), (54). The ’898 patent claims priority through various continuation applications to U.S. Provisional Application No. 60/626,933, filed November 12, 2004. *Id.* at codes (60), (63). Petitioner submits that “[it] does not concede that the claims are entitled to this priority date, but the relied-upon prior art references nevertheless predate it,” and the “relied-upon

references qualify as prior art under both pre-AIA and AIA rules.” Pet. 8 n.2.

The '898 patent relates to “a process that allows advertisers to finance media productions through advertising media buys while eliminating the risk of normal event financing speculative investment.” Ex. 1001, 1:22–26. Figure 1 of the '898 patent is reproduced below.

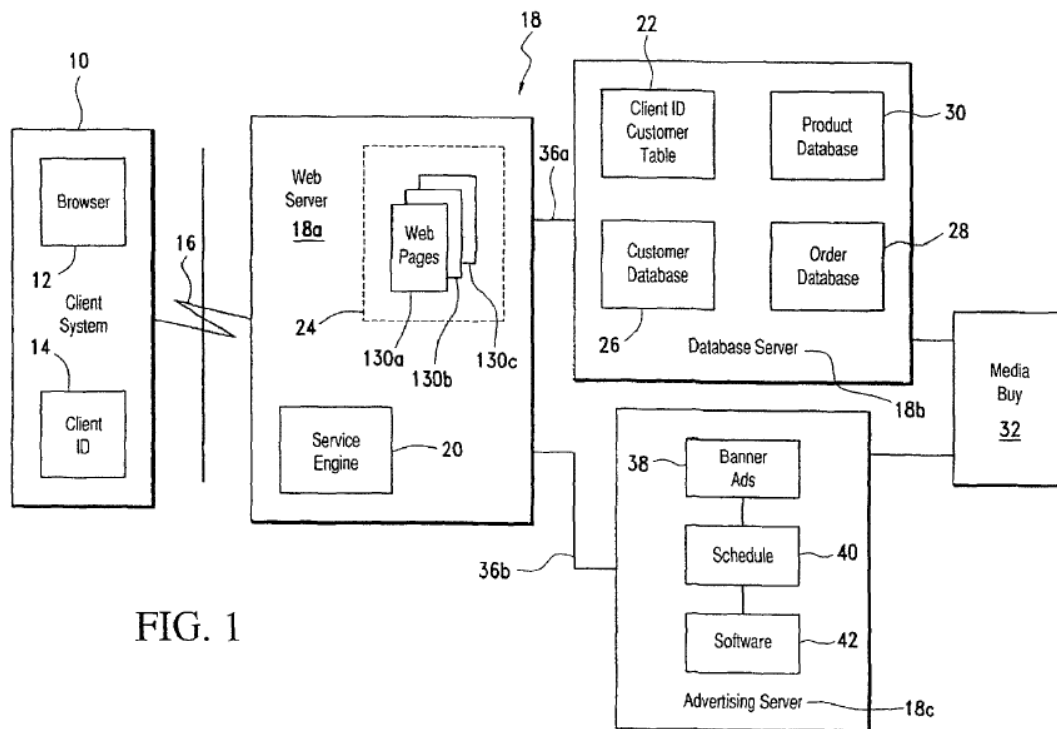


Figure 1 depicts a functional block diagram showing how a user's browser and a server of the website to be accessed by the user's browser are connected to and by a communication link to each other.

Id. at 3:15–18, Fig. 1.

As illustrated in Figure 1, a browser or user (client) uses client system 10 to access server system 18 by exchanging messages over communication link 16, such as the Internet. Ex. 1001, 3:26–30. Server system 18 comprises web server 18a, data base server 18b, and advertising

server 18c. *Id.* at 3:46–48. Advertising server 18c is programmed “to regulate the advertisements to be seen by the users,” which is done “by storing the advertisement materials in the form of acceptable internet standards, i.e. banner ads, pop-ups, text ads and rich media, in corresponding databases 38, 40 and 42,” and is programmed “to run the ads based on predetermined impressions, length of contract with the advertiser.” *Id.* at 3:51–58.

The ’898 patent states:

Advertising on the [I]nternet is created by and through the media property and content on the web property. The web property is marketed to a target audience who visits the web property to view the content provided. Every time an individual visits the web property, he/she creates an *impression*.

Ex. 1001, 4:30–34 (emphasis added). “These impressions create a commodity in the advertising community and are packaged by the sales team to be sold . . . to an advertiser.” *Id.* at 5:17–21. An advertiser wanting to market itself to the target audience purchases “targeted impressions” at a predetermined media buy in order to place advertising materials on a screen of the property. *Id.* at 5:22–30. Once the media buy is fulfilled, the advertiser is invoiced. *Id.* at 5:38–41. The advertiser pays the invoice, and the revenue generated is placed into a fund, such as a bank account. *Id.* at 5:41–45. According to the ’898 patent, such funds may then be used, for example, “to finance the development of [a] screenplay into a finished production media.” *Id.* at 5:47–49.

D. Illustrative Claim

The ’898 patent includes twenty claims, including independent claims 1, 10, and 19, all of which are challenged. Independent claim 1 is

illustrative of the claimed subject matter and is reproduced below with labels, such as “1[a],” added to limitations in the same manner as used by Petitioner.

1. [pre] A computer-implemented method comprising:
 - [a] receiving, by one or more processors, from a given client, over an Internet-based communication link from a browsing application executed on the given client processor to the one or more processors, a message comprising data, the data comprising advertising material to populate on one or more websites;
 - [b] identifying, by the one or more processors, the given client, based on receiving the message, an identifier, wherein the message comprises the identifier;
 - [c] based on a message provided by a given client, generating, by the one or more processors, a webpage, wherein the generating comprises providing, via a graphical user interface of the webpage, a plurality of advertising buy options for selection by a given client accessing said webpage;
 - [d] obtaining, by the one or more processors, via an input in the graphical user interface, a selection of one or more of the advertising buy options, wherein the selected one or more advertising buy options comprise at least one website of the respective websites and a predetermined number of impressions of the advertising material for users visiting the at least one website;
 - [e] generating, by the one or more processors, on a database accessible to the one or more processors, a repository for advertising revenue based on the selection;
 - [f] based on obtaining the selection, populating, by the one or more processors, the advertising material on the at least one website, wherein the populating comprises placing the advertising material within web property content of the at least one website;

- [g] monitoring, by the one or more processors, a number of impressions of the advertising material provided to users accessing the web property content displayed on the at least one website;
- [h] determining, by the one or more processors, whether an impression of the advertising material is valid, wherein the impression is valid based on a predetermined impression tracking system;
- [i] determining, by the one or more processors, that the number of valid impressions is greater than or equal to the predetermined number of impressions;
- [j] upon determining a number of valid impressions are met, ceasing, by the one or more processors, the populating of the advertising material on the at least one website; and
- [k] based on determining a number of valid impressions are met, electronically collecting, by the one or more processors, a share of the advertising revenue to be transmitted to the web property content owner.

Ex. 1001, 10:29–11:11.

E. Evidence of Record

Petitioner relies on the following evidence. Pet. 3.

Name	Patent Document	Exhibit
Nicholas	U.S. Patent Appl. Pub. No. 2004/0054589 A1, published March 18, 2004	1003
Laidlaw	U.S. Patent Appl. Pub. No. 2004/0128547 A1, published July 1, 2004	1004
Mayadas	U.S. Patent Appl. Pub. No. 2001/0039515 A1, published November 8, 2001	1005
Yasnovsky	U.S. Patent Appl. Pub. No. 2005/0027594 A1, published February 3, 2005	1006
Error	U.S. Patent No. 8,156,216 B1, issued April 10, 2012	1007

Nicholas (Provisional)	U.S. Provisional Appl. No. 60/362,297, filed March 7, 2002 (<i>see</i> Ex. 1003)	1013
Manowitz	WO 01/59653 A1	1015

Petitioner also relies upon the Declarations of Mark Crovella, Ph.D. (Exs. 1002, 1026) and Ingrid Hsieh-Yee, Ph.D. (Ex. 1017).

Patent Owner relies upon the Declaration of Harley R. Myler, Ph.D. (Ex. 2009).

F. Asserted Challenges to Patentability

We instituted *inter partes* review of claims 1–20 of the ’898 patent on the following grounds asserted by Petitioner. Dec. 3, 8, 24; Pet. 3.

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1–6, 9–15, 18, 19	103 ²	Nicholas, Laidlaw, Mayadas, Error
7, 8, 16, 17, 20	103	Nicholas, Laidlaw, Mayadas, Error, Yasnovsky
1–6, 9–15, 18, 19	103	Nicholas, Laidlaw, Mayadas, Error, Manowitz
7, 8, 16, 17, 20	103	Nicholas, Laidlaw, Mayadas, Error, Yasnovsky, Manowitz

² The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. § 103. Neither party argues that the outcome of this case would differ based on applying the pre-AIA or post-AIA versions of these laws. Because the ’898 patent lists an unchallenged, effective filing date before March 16, 2013, the effective date of the relevant amendment, we apply the pre-AIA version of § 103. *See* Ex. 1001, code (60).

III. PATENTABILITY

A. *Applicable Law*

Petitioner challenges the patentability of claims 1–20 of the ’898 patent on grounds that the claims would have been obvious under 35 U.S.C. § 103 in light of various references, namely Nicholas, Laidlaw, Mayadas, Error, Yasnovsky, and Manowitz. “In an [*inter partes* review], the petitioner has the burden from the onset to show *with particularity* why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (requiring *inter partes* review petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”)) (emphasis added). This burden never shifts to Patent Owner. *See Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015).

A claim is unpatentable under 35 U.S.C. § 103 if “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) when of record, objective evidence of obviousness or non-obviousness, i.e., secondary considerations. *Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 17–18 (1966). Secondary considerations may include the following: “commercial success, long felt

but unsolved needs, failure of others, etc.”³ *Id.* The totality of the evidence submitted may show that the challenged claims would not have been obvious to one of ordinary skill in the art. *In re Piasecki*, 745 F.2d 1468, 1471–72 (Fed. Cir. 1984). When evaluating a combination of teachings, we must also “determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *KSR*, 550 U.S. at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

The Supreme Court has made clear that we apply “an expansive and flexible approach” to the question of obviousness. *KSR*, 550 U.S. at 415. Whether a patent claiming a combination of prior art elements would have been obvious is determined by whether the improvement is more than the predictable use of prior art elements according to their established functions. *Id.* at 417. To reach this conclusion, however, “requires more than a mere showing that the prior art includes separate references covering each separate limitation in a claim under examination.” *Unigene Labs., Inc. v. Apotex, Inc.*, 655 F.3d 1352, 1360 (Fed. Cir. 2011). Rather, obviousness requires the additional showing that a person of ordinary skill at the time of the invention would have selected and combined those prior art elements in the normal course of research and development to yield the claimed invention. *Id.* “To satisfy its burden of proving obviousness, a petitioner cannot employ mere conclusory statements. The petitioner must instead articulate specific reasoning, based on evidence of record, to support the legal conclusion of obviousness.” *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016).

³ Patent Owner does not present objective evidence of non-obviousness.

We analyze the challenges presented in the Petition in accordance with the above-stated principles.

B. Level of Ordinary Skill in the Art

Petitioner contends that a person of ordinary skill in the art, at the time of the invention of the '898 patent ("the relevant artisan"):

would have possessed a bachelor's degree in electrical engineering, computer science, or similar field, with at least two years of experience in developing and implementing network-based computer systems, such as systems for sending and receiving information over the Internet and/or the Web. A person could also have qualified with more formal education and less technical experience, or vice versa.

Pet. 4 (citing Ex. 1002 ¶¶ 9–12).

Patent Owner contends that the relevant artisan:

would have had at least a bachelor's degree, or the equivalent degree, in electrical engineering, computer science, computer engineering, or a related field, and at least two years of experience in internet-based technologies, including web interfaces and web-based media, or a related field, and with related systems, hardware, software, and firmware, or equivalent experience. A person with less education but more relevant practical experience, or more education and less experience, may also meet this standard.

PO Resp. 11 (citing Ex. 2009 ¶¶ 43–47).

Petitioner's and Patent Owner's definitions for the level of ordinary skill in the art are substantially similar. In light of the record before us, we adopt Patent Owner's proposal regarding the level of ordinary skill in the art. Based on our review of the '898 patent and the prior art of record, we determine that the definition offered by Patent Owner comports with the qualifications a person would have needed to understand and implement the teachings of the '898 patent and the prior art, particularly experience

pertaining to Internet/web interfaces and web-based media. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (explaining that specific findings regarding ordinary skill level are not required “where the prior art itself reflects an appropriate level and a need for testimony is not shown”) (quoting *Litton Indus. Prods., Inc. v. Solid State Sys. Corp.*, 755 F.2d 158, 163 (Fed. Cir. 1985)). Neither party argues, nor do we determine, that the outcome of our Decision depends on which party’s definition is selected.

C. Claim Construction

We construe claims “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), including construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent.” 37 C.F.R. § 42.100(b); *see also Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc).

In this context, claim terms “are generally given their ordinary and customary meaning” as understood by a person of ordinary skill in the art in question at the time of the invention. *Phillips*, 415 F.3d at 1312–13; *see CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002) (There is “a ‘heavy presumption’ that a claim term carries its ordinary and customary meaning.”). “In determining the meaning of the disputed claim limitation, we look principally to the intrinsic evidence of record, examining the claim language itself, the written description, and the prosecution history, if in evidence.” *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d 1005, 1014 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1312–17). Extrinsic evidence is “less significant than the

intrinsic record in determining “the legally operative meaning of claim language.” *Phillips*, 415 F.3d at 1317.

Moreover, the patent specification and prosecution history only compel departure from the plain meaning in two instances: lexicography and disavowal. *Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012). “The standards for finding lexicography and disavowal are exacting.” *GE Lighting Sols., LLC v. AgiLight, Inc.*, 750 F.3d 1304, 1309 (Fed. Cir. 2014). To act as its own lexicographer, a patentee must “clearly set forth a definition of the disputed claim term,” and “clearly express an intent to define the term.” *Thorner*, 669 F.3d at 1365; *see Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996) (“[W]ords in a claim are generally given their ordinary and customary meaning, [but] a patentee may choose to be his own lexicographer and use terms in a manner other than their ordinary meaning, as long as the special definition of the term is clearly stated in the patent specification or file history.”); *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (holding that an inventor may define specific terms used to describe an invention, but must do so “with reasonable clarity, deliberateness, and precision” and, if done, “‘must set out his uncommon definition in some manner within the patent disclosure’ so as to give one of ordinary skill in the art notice of the change” in meaning) (quoting *Intellicall, Inc. v. Phonometrics, Inc.*, 952 F.2d 1384, 1387–88 (Fed. Cir. 1992)). Similarly, disavowal requires that “the specification [or prosecution history] make[] clear that the invention does not include a particular feature.” *SciMed Life Sys. Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1341 (Fed. Cir. 2001).

Petitioner submits that all terms in the Challenged Claims should be given their plain and ordinary meaning in this proceeding, and that no specific construction of any claim term is required to resolve this case. Pet. 6 (“Petitioner does not believe express claim construction is necessary to resolve this Petition.”). Patent Owner submits the same. PO Resp. 11 (“Patent Owner generally agrees with Petitioner’s (and Dr. Crovella’s) position that the terms of the Challenged Claims have their plain and ordinary meaning and that no express claim constructions are necessary.”). But the parties then both argue that the other misrepresents or misapplies the plain and ordinary meaning of three limitations, namely (1) “website”; (2) “web property content”; and (3) “placing the advertising material within web property content of the at least one website,” all as recited in independent claim 1. *See id.* at 12–20; Pet. Reply 1–8; PO Sur-reply 9–17.

Only those claim terms that are in controversy need to be construed, and only to the extent necessary to resolve the controversy. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (stating that “we need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))). We construe below the meaning of the three limitations noted above, and to the extent necessary to resolve the controversy before us, we address any additional claim interpretation in our patentability analysis in Section III.D below.

1. “website”

Claim 1 recites, *inter alia*, receiving a message with data that comprises “advertising material to populate on one or more *websites*,” and

“advertising buy options comprise at least one *website* of the respective *websites*.” Ex. 1001, 10:29–11:11 (emphases added).

Petitioner proffers that the term “website” should be construed to “includ[e] a server and one or more webpages that may be provided by the server for display in a web browser.” Pet. Reply 5 (citing Ex. 1026 ¶¶ 13–15). Petitioner argues, and we agree, that the Specification strongly supports this construction (requiring a server and webpage(s)) by describing a “website” as synonymous with a server computer system: “The WWW [(World Wide Web)] service allows *a server computer system* (i.e., Web server or *Web site*) to send graphical Web pages or screens of information such as the advertising materials to a remote client computer system 10.” Ex. 1001, 3:66–4:2 (emphases added); *see id.* at Fig. 1 (depicting a service engine and webpages as a web server, i.e., website), 3:15–18 (describing Figure 1 as showing “a server *of the website*” (emphasis added)); Pet. Reply 5; *see* Ex. 1026 ¶ 13. Petitioner also submits a supporting (and persuasive) contemporaneous technical dictionary definition of “website,” which highlights the distinction between a lay person’s understanding of the term versus that of the relevant artisan. Pet. Reply 5–6. This definition explains that the “common but technically inaccurate” usage of “website” is to mean “Web page,” but the technically correct usage of “website” is to mean “one or more computers that are associated with a fully qualified domain name and make content available on the Web.” *Id.* (citing Ex. 1028, 402). Petitioner’s expert, Dr. Crovella, likewise testifies that “[a] website cannot exist without the server or computer that provides its webpages.” Ex. 1026 ¶ 15; *see* Ex. 1027, 36:8–20 (Patent Owner’s expert, Dr. Myler,

agreeing that “it has to be some machine somewhere that’s providing the webpages for the website.”).

The limitations of claim 1 also support Petitioner’s position that “website” includes a server and webpage(s). Reply 5. For example, claim 1 recites advertising material for “populat[ing] on *one or more websites*,” and selected “advertising buy options comprise *at least one website of the respective websites*.” Ex. 1001, 10:29–51 (emphases added). We find these limitations make the most technical sense where “website” implicates an Internet domain or domain name, such as *brodti.com*, which itself is a computer system (server) and associated webpage(s) reached via that domain name. This interpretation aligns with testimony of Patent Owner’s expert, Dr. Myler, in which he states that a “website” describes “a group of webpages *at a particular domain (e.g., www.espn.com, www.espn.com/nba, www.espn.com/nfl, www.espn.com/nhl)*.” Ex. 2009 ¶ 68 (emphasis in italics added). In other words, *brodti.com* and *espn.com* are two different *websites*, with each website having one or more webpages (e.g., *www.espn.com/nba*, *www.espn.com/nfl*), and such websites include a server giving life to such webpage(s).

Patent Owner initially proffered that “website” should be construed to include only “webpages,” and *not* the underlying server giving life to those webpages. PO Resp. 18–20; PO Sur-reply 9–11. But during the oral hearing, Patent Owner’s counsel accepted Petitioner’s proposed meaning of “website,” stating: “I don’t think we necessarily disagree with website having the meaning of web pages and a server,” and “we can skip over the meaning of websites, because I think we have agreement.” Tr. 39:23–40:11.

Regardless, we find unavailing Patent Owner’s arguments that a “website” is or means only webpage(s).

Accordingly, based on the complete record before us, we determine that “website” should have its plain and ordinary meaning, which the relevant artisan would have understood to include a server and one or more webpages provided by the server for display in a web browser.

2. “*web property content*”

Claim 1 recites, *inter alia*, “placing the advertising material within *web property content* of the at least one website”; “accessing the *web property content* displayed on the at least one website”; and collecting “a share of the advertising revenue to be transmitted to the *web property content* owner.” Ex. 1001, 10:55–11:11 (emphases added).

We turn first to the claim language itself. We are mindful of Judge Rich’s guidance from over thirty years ago: in all aspects of claim construction, “the name of the game is the claim.” *In re Hiniker Co.*, 150 F.3d 1362, 1369 (Fed. Cir. 1998) (quoting Giles Sutherland Rich, *Extent of Protection and Interpretation of Claims—American Perspectives*, 21 Int’l Rev. Indus. Prop. & Copyright L. 497, 499 (1990)). In this case, the usage in claim 1 itself strongly suggests that “web property content” means what it says, namely, *content* provided on a webpage of a website (i.e., content of the web property, such as content found on the webpages of *brodti.com*). Indeed, but for such “web property content,” a webpage of a website would be presented as a blank display (monitor screen).

The Specification supports this interpretation of “web property content.” For example, it states, “The web property is marketed to a target audience who visits the web property *to view the content provided.*”

Ex. 1001, 4:31–34 (emphasis added); *see id.* at 4:30–31 (“content on the web property”). In other words, as discussed above, users (viewers) visit webpage(s) of a website to view content provided on such webpage(s)—that content provided on the webpage of the website *is* “web property content.” As a basic analogy to a paper note pad, the pad is the website, the pages of the pad are the webpages, and any writings, drawings, or pictures on such pages constitute the content—hence content of a webpage of a website or “web property content.” Of course, as with writings on pages of a note pad, content when populated on a webpage effectively becomes one with the webpage, i.e., to a viewer, the webpage is the content.

Petitioner agrees with the foregoing construction of “web property content.” *See* Pet. Reply 2 (“[T]he Board should construe this term as including content of a website, such as one or more webpages of the website.” (citing Ex. 1026 ¶¶ 6–7)); *see id.* at 2–3 (“There is no magic to the term web property content, and its meaning is clear from the written description.”); Ex. 1026 ¶¶ 6–7.

Patent Owner proffers that “web property content” means “a discrete user-accessible file on a website for which revenue is being sought.” PO Resp. 14. Notwithstanding Patent Owner’s arguments to the contrary (PO Resp. 11–15; PO Sur-reply 12–17), we find no support in the claims or Specification for Patent Owner’s narrow definition for the term “web property content.” Rather, we agree with Petitioner’s assessment of this proposed definition:

Patent Owner’s requirement of “a discrete user-accessible file” strays far from plain meaning and finds no support in the intrinsic record. The word “file” appears only once in the entire patent, in the unrelated context of storing a client identifier cookie on a

client system. ([Ex. 1001], 3:31-34; EX1026, ¶8.) The words “discrete” and “user-accessible” appear nowhere in the patent.

Pet. Reply 3. Patent Owner concedes that “web property content” is “not expressly used in the specification.” PO Sur-reply 16. Not only is it not “expressly used” in the Specification, but the Specification provides no description of this term *being limited to* a “file,” let alone a “user-accessible” file or a “discrete”-“user-accessible”-“file”-“ for which revenue is being sought.” *See generally* Ex. 1001. Patent Owner argues this limited definition of “web property content” “come[s] from a reading of [claim 1’s] elements [f], [g], and [k] as explicitly reciting that the ‘web property content’ must be user-accessible, impression-tracked, and ownable.” PO Sur-reply 16–17. But Patent Owner neither explains nor directs us to any evidence showing “why” *any* content provided on a webpage of a website would not be user-accessible, impression-trackable, or ownable. Indeed, the use of the broad term “content” itself belies Patent Owner’s arguments that claim 1 contemplates such content *only* in the form of a “a discrete user-accessible file.”

We note that Patent Owner’s claim construction arguments highlight a conflict between, on the one hand, what claim 1 actually recites and the Specification supports, and on the other hand, what Patent Owner contends claim 1 recites in view of prior art asserted in this case or what the inventor may have intended to recite. More specifically, claim 1 defines the invention, in part, as placing advertising material within *web property content* of at least one website. Ex. 1001, 10:55–59. Notably missing from claim 1 is any limitation definitively limiting such “content” to only a “[computer] file.” *See id.* at 10:29–11:11. Patent Owner argues that an “example” of “web property content” is a “video[.]” on a webpage of the

website, *youtube.com*, and reproduces a screenshot of such a YouTube webpage in its briefs. PO Sur-reply 12–13; *see* PO Resp. 15–16. But even here, Patent Owner characterizes a “video” as only an “example” of web property content (an example nowhere described in the Specification). But a video also would fall within the scope of content provided on a webpage of a website (Petitioner’s and our interpretation). We find Patent Owner’s arguments as to the meaning of “web property content” unavailing.

Accordingly, based on the complete record before us, we determine that “web property content” means what it says, namely “content provided on a webpage of a website.”

3. *“placing the advertising material within web property content of the at least one website”*

Claim 1 recites, *inter alia*, “placing the advertising material *within* web property content of the at least one website.” Ex. 1001, 10:55–59 (emphasis added).

Patent Owner proffers that placing advertising material “within” web property content means “inserting” an advertisement into particular content. PO Resp. 12. Petitioner responds that “placing . . . within” means what it says, and notes that “[t]he words ‘insert’ or ‘inserting’ appear nowhere in the [Specification].” Pet. Reply 7–8; *see id.* at 8 (Petitioner arguing that Patent Owner’s expert “admitted that the claim does not specify details regarding how advertising material needs to be placed within web property content.” (citing Ex. 1027, 29:18–24)). Patent Owner replies that the relevant artisan allegedly “would have understood ‘placing . . . within’ to mean ‘inserting into,’” but then submits that whether “placing . . . within” versus “inserting into” is used does not matter because Petitioner allegedly has not

demonstrated the obviousness of either. PO Sur-reply 17. As Petitioner observes, “[i]t is unclear if Patent Owner intended any difference in meaning between these two terms.” Pet. Reply 8.

Accordingly, based on the complete record before us, we determine that no further construction of this limitation is needed, and “placing A within B” means what it says—“placing A within B.”

D. Obviousness of Claims 1–6, 9–15, 18, and 19 over the Combination of Nicholas, Laidlaw, Mayadas, and Error

Petitioner contends claims 1–6, 9–15, 18, and 19 would have been unpatentable under 35 U.S.C. § 103 as obvious over the combination of Nicholas (Ex. 1003), Laidlaw (Ex. 1004), Mayadas (Ex. 1005), and Error (Ex. 1007). Pet. 6–61; Pet. Reply 8–24. Patent Owner opposes Petitioner’s contentions. PO Resp. 20–36; PO Sur-reply 1–26. For the reasons expressed below, and based on the complete record before us, we determine that Petitioner has demonstrated by a preponderance of the evidence that claims 1–6, 9–15, 18, and 19 would have been unpatentable as obvious over the combination of Nicholas, Laidlaw, Mayadas, and Error. We turn first to an overview of these four references.

1. Overview of Nicholas (Ex. 1003)

Nicholas is a published U.S. patent application titled “Method and System for Providing Network Based Target Advertising and Encapsulation.” Ex. 1003, code (54). Nicholas was filed on September 8, 2003, and published on March 18, 2004. *Id.* at codes (22), (43). Petitioner contends Nicholas is prior art under 35 U.S.C. §§ 102(a) and 102(e). Pet. 8.

Nicholas relates to “the targeted distribution of advertisements over a network,” as shown, for example, in Figure 1, reproduced below. Ex. 1003 ¶ 2.

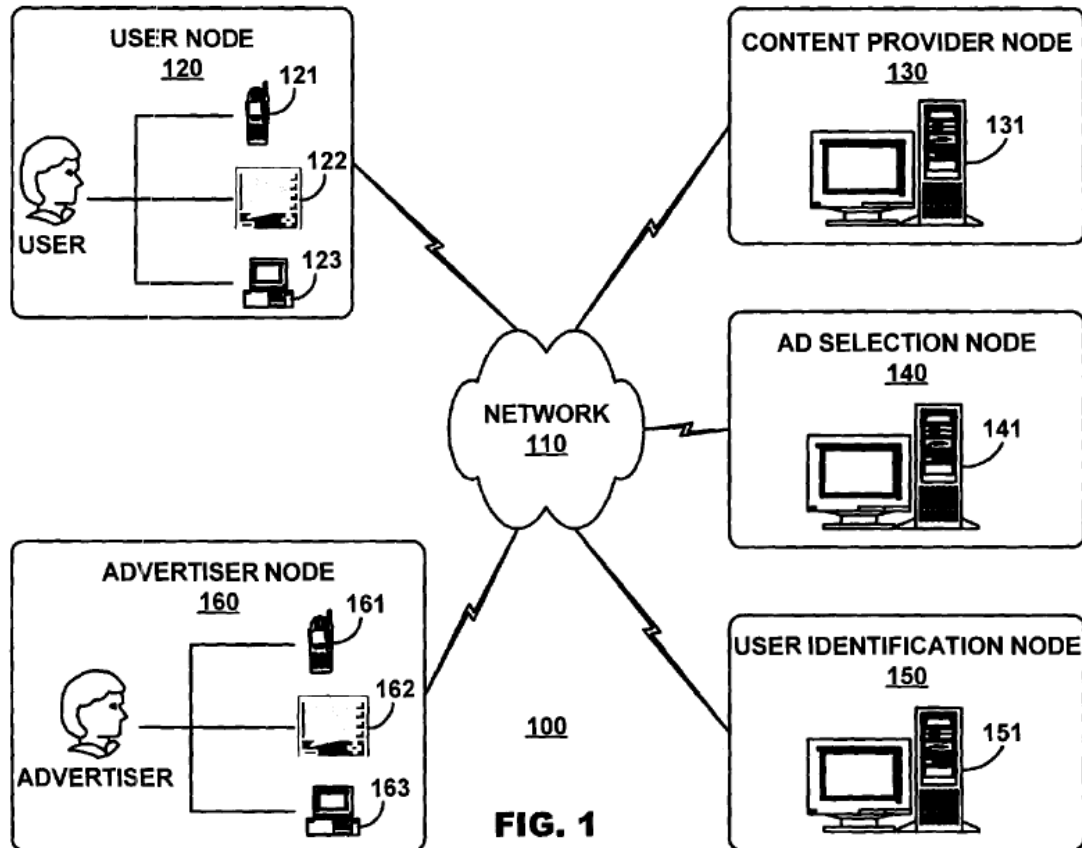


Figure 1 depicts a telecommunication system for the targeted distribution of online advertisements.

Id. ¶ 4, Fig. 1.

As shown above in Figure 1, telecommunication system 100 comprises (1) user node 120, which “operates to facilitate communications of requested information in audio form and/or visual form between a user of user node 120 and one of the other nodes of telecommunication system 100” (Ex. 1003 ¶ 44); (2) content provider node 130, which communicates advertisements to user node 120 as directed by ad selection node 140 (*Id.*

¶¶ 45–46); (3) ad selection node 140, which includes targeted ad server 141a and an associated database “for managing a selection of which advertisement or advertisements are to be communicated with the requested information from content provider node 131 to user node 120” (*Id.* ¶ 47); (4) user identification node 150, which includes conventional geographic location server 151a and associated database “for providing information indicative of a geographic location of the user to ad selection node 140 (*Id.* ¶ 51); and (5) advertiser node 160, which “facilitate[s] communications of advertisements in audio form and/or visual form between an advertiser and the ad selection node 140” (*Id.* ¶ 52).

Nicholas describes the operation of its online advertising telecommunications system 100 as follows:

A telecommunication system implements a method for providing a targeted online advertisement to a user accessing a content provider node of the system. The system further comprises an ad selection node and a user identification node. A generic advertiser provides a generic ad request. Geo-target availability is provided based on a number of requested impressions for the generic ad request and a web site designation. Geographically targeted ad requests are received from one or more child advertisers. A media buy output is determined based on the received information.

Ex. 1003, code (57).

We further discuss below the disclosures of Nicholas in connection with the parties’ arguments.

2. *Overview of Laidlaw (Ex. 1004)*

Laidlaw is a published U.S. patent application titled “Method and System for Modular Authentication and Session Management.” Ex. 1004, code (54). Laidlaw was filed on December 31, 2002, and published on

July 1, 2004. *Id.* at codes (22), (43). Petitioner contends Laidlaw is prior art under 35 U.S.C. §§ 102(a) and 102(e). Pet. 8.

Laidlaw relates to “managing computer systems, and more particularly, to a method and system for modular authentication and session management.” Ex. 1004 ¶ 1. Laidlaw describes the operation of its online user authentication system as follows:

A computing system received a request to perform a task from a user. The computing system forwards the request to a module that is configured to authenticate the user. The authentication module verifies the identity of the user, using one of a variety of different methods. The authentication module may supply a session token indicative of the verification. Thereafter, the pre-determined permissions of the user are determined in one of a number of manners, such as accessing a database. After it is determined that the user has permission to perform the requested task, the requested task is then performed. The permissions may be stored in an access control list that contains data regarding the identity and privileges of the user.

Id. ¶ 9. Laidlaw further explains that “[w]hen the user authenticates at a login screen, the session token is placed into a cookie. When a subsequent request is received from the same client system, the session token is extracted from the cookie, and the token is obtained from a session table that is keyed by session token.” *Id.* ¶ 16. This session table “contains information that may be used in determining the authorization level of the user.” *Id.* ¶ 31.

We further discuss below the disclosures of Laidlaw in connection with the parties’ arguments.

3. *Overview of Mayadas (Ex. 1005)*

Mayadas is a published U.S. patent application titled “System and Method for Payment for Targeted Messaging Over a Network.” Ex. 1005,

code (54). Mayadas was filed on May 2, 2001, and published on November 8, 2001. *Id.* at codes (22), (43). Petitioner contends Mayadas is prior art under 35 U.S.C. § 102(b). Pet. 8.

Mayadas relates to “payments to a plurality of parties for targeted advertising and for user profile aggregation over the Internet,” as shown, for example, in Figure 1, reproduced below. Ex. 1005 ¶ 2.

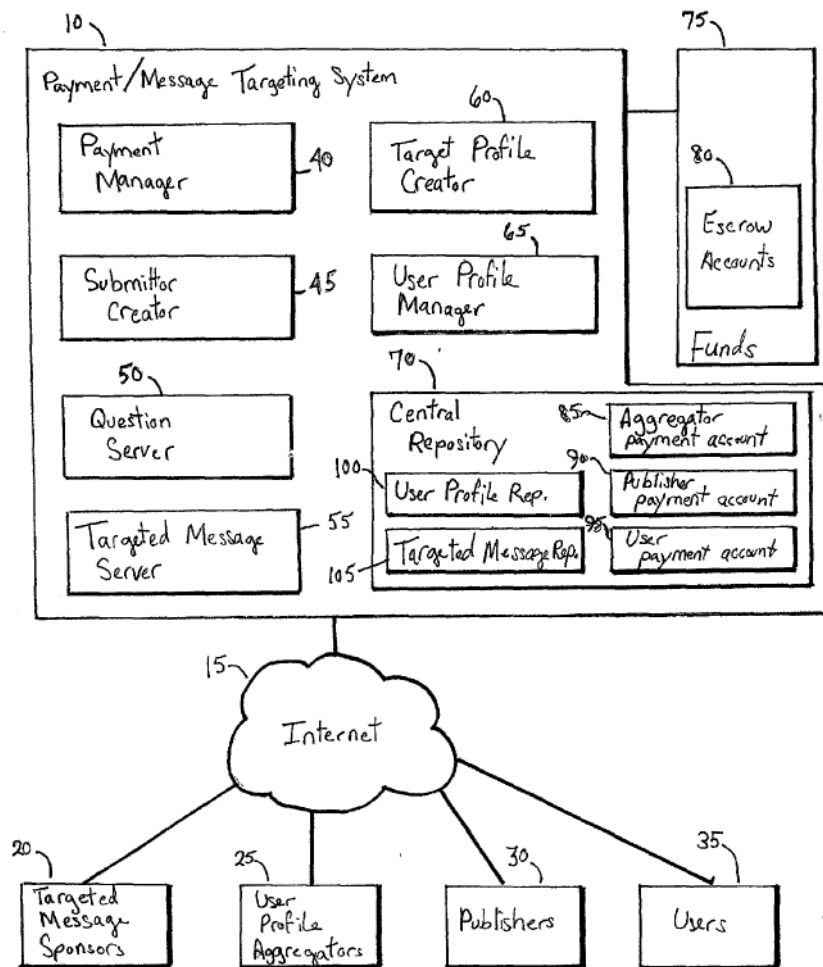


FIG. 1

Figure 1 depicts a block diagram of Mayadas' targeted advertising payments system.

Ex. 1005 ¶ 18, Fig. 1.

Mayadas describes its payment method for targeted online advertising as follows:

[T]argeted message sponsors such as advertisers pay in to the system to have the targeted message distributed according to specified parameters. Users of the system, who view the targeted messages, are compensated for interacting with the targeted message. The user data is stored in user profiles maintained by the system. Targeted message publishers are compensated for publishing the targeted messages. Data aggregators, who gather data about users for the user profiles, are compensated for the data gathered.

Ex. 1005 ¶ 14. Mayadas further describes the operation of its payment system as follows:

[A] targeted message sponsor provides a targeted message, such as an advertisement, to the system for distribution. The targeted message sponsor specifies the parameters of distribution of the targeted message including the users to which the message is to be distributed. The targeted message sponsor pays in to an escrow account held by the system. The targeted message is published on one or more publishers, according to the parameters set by the message sponsor. Also, the message is published to selected users when they interact with one of the selected publishers. When a user interacts with a targeted message, such as clicking on the targeted message display, the publisher, the user, and any data aggregator involved in targeting the message are compensated from the escrow account.

Id. ¶ 15.

We further discuss below the disclosures of Mayadas in connection with the parties' arguments.

4. Overview of Error (Ex. 1007)

Error is a U.S. patent titled "Distributed Data Collection and Aggregation." Ex. 1007, code (54). Error was filed on January 30, 2003,

and issued on April 10, 2012. *Id.* at codes (22), (45). Petitioner contends Error is prior art under 35 U.S.C. § 102(e). Pet. 8.

Error relates to “website traffic data collection, and more specifically to improved techniques for collecting traffic data from multiple sources and aggregating the collected data.” Ex. 1007, 1:15–18. As background, Error describes a “single-pixel” image technique for determining that an impression is valid:

One commonly used technique for third-party collection of usage data is to include, in each web page to be tracked, a small image, such as a single-pixel image that is not intended to be noticed by the user. Normally, images in web pages are served from the content provider’s server, along with other content. The single-pixel image, however, which is specifically included in web pages for tracking purposes and normally does not contain any meaningful content, is served from a tracking server operated by the third-party traffic statistics service. In most cases, the single-pixel image is transparent, so as to be as unobtrusive as possible.

When a user navigates to a web page, the web page’s HTML code causes the user’s browser to send a request for the single-pixel image. The tracking server receives the request and logs the request as a user visit to the web page. It is known in the art to embed identifier codes within the image requests, so that the tracking server can detect individual users and discern additional identifying information about each user.

Id. at 1:36–54; *see id.* at 2:6–21 (explaining that when the tracking server receives a request for the single-pixel image, “tracking server 106 records the occurrence of a ‘hit’ to the web page”).

We further discuss below the disclosures of Error in connection with the parties’ arguments.

5. *Independent Claim 1*

Independent claim 1, reproduced above in Section II.D, is directed to a computer-implemented project funding method using online targeted advertising, and includes eleven delineated steps (1[a]–1[k]). Ex. 1001, 10:29–11:11. Petitioner presents evidence in the Petition that the combination of Nicholas, Laidlaw, Mayadas, and Error would have taught or at least fairly suggested to the relevant artisan the limitations of claim 1 as a whole. Pet. 8–51; *see id.* at 6–7. We summarize below our understanding of Petitioner’s application of the combination of Nicholas, Laidlaw, Mayadas, and Error to independent claim 1.

a) Summary of Petitioner’s Unpatentability Arguments

Petitioner argues in sum:

(1) Nicholas teaches “a self-service targeted advertising system similar to the ’898 patent in which advertisers, through a web-based user interface, specify parameters for an advertising campaign including the targeted websites and the desired number of advertising impressions,” and that Nicholas teaches “the majority of the limitations of the challenged claims.” Pet. 6 (citing Ex. 1003, Figs. 6, 8; Ex. 1002 ¶¶ 42–50); *see* Ex. 1003, Fig. 1.

(2) Mayadas teaches “a similar self-service targeted Internet advertising system,” and contributes more specific teachings on “collecting funds from advertisers and paying websites for displaying advertisements,” including the use of “escrow account[s]” or funds to do so. Pet. 6–7 (citing Ex. 1002 ¶¶ 57–59); Ex. 1002 ¶ 59; Ex. 1005 ¶¶ 15, 38.

(3) Laidlaw and Error further teach certain “standard features of web-based systems that, although not expressly described in Nicholas, were well-

known.” Pet. 7. For example, Petitioner argues that Laidlaw teaches the use of “cookies” (or “identifiers”), which according to Petitioner, was (and still is) “a technology employed by hundreds of millions of websites to identify users and track their activities.” Pet. 7 (citing Ex. 1002 ¶¶ 51–55).

Similarly, Petitioner argues that Error teaches “web beacons in which a single-pixel image file can be embedded in a webpage to record when users view the page,” and that this technique was “a known tracking system used to determine whether or not a webpage was in fact delivered and displayed to a user.” Pet. 7 (citing Ex. 1002 ¶¶ 61–64); Ex. 1002 ¶ 62. Petitioner argues that “[t]he monitoring techniques in Laidlaw and Error were well-known in the art.” Pet. 7 (citing Ex. 1002 ¶¶ 92–98, 133–138).

Together, Petitioner argues these references would have taught or at least fairly suggested to the relevant artisan all of the features of the eleven delineated steps (1[a]–1[k]) in claim 1, and cites substantial expert testimony in support thereof. Pet. 8–51.

Petitioner argues the relevant artisan would have had various rational reasons for combining the teachings of these four references, and would have had a reasonable expectation of success in doing so. *See, e.g.*, Pet. 18–21 (discussing reasons to combine Nicholas and Laidlaw and expectation of success in doing so), 33–37 (discussing reasons to combine Nicholas and Mayadas and expectation of success in doing so), 44–45 (discussing reasons to combine Nicholas, Laidlaw, Mayadas, and Error and expectation of success in doing so).

We find Petitioner’s arguments persuasive, as discussed below.

b) Disputed Limitations

The parties dispute whether the asserted combination of prior art would have taught or fairly suggested the following limitations in claim 1:

(1) providing advertising buy options to a client for the client's selection, and selecting such an option, wherein the selected option includes at least one website and a predetermined number of impressions of advertising material (limitations 1[c] and 1[d]);

(2) placing advertising material within web property content (limitation 1[f]);

(3) monitoring a number of impressions of advertising material provided to users accessing web property content and determining whether such impressions are valid (limitations 1[g] and 1[h]); and

(4) based on determining a number of valid impressions are met, collecting a share of advertising revenue to be transmitted to a web property content owner (limitation 1[k]). We address these four disputed limitations *seriatim*.

(1) Predetermined Number of Impressions of Advertising Material

Claim 1 recites:

[c] based on a message provided by a given client, generating, by the one or more processors, a webpage, wherein the generating comprises *providing*, via a graphical user interface of the webpage, *a plurality of advertising buy options for selection* by a given client accessing said webpage;

[d] obtaining, by the one or more processors, via an input in the graphical user interface, *a selection* of one or more of the advertising buy options, *wherein the selected one or more advertising buy options comprise* at least one website of

the respective websites and *a predetermined number of impressions of the advertising material* for users visiting the at least one website

Ex. 1001, 10:39–51 (emphases added).

The parties' arguments concerning these limitations distill down to whether Nicholas's provision of an input field for specifying a desired number of advertising material impressions, and a user's subsequent selection and submission of such number, would have taught or fairly suggested to the relevant artisan the claimed *selection* of advertising buy options, where a selected option includes a *predetermined* number of impressions. *See* Pet. 21–28; PO Resp. 21–27; Pet. Reply 8–16; PO Sur-reply 1–9.

Petitioner contends Nicholas's Figure 8, reproduced below, and its supporting text would have taught or at least fairly suggested the subject limitations to the relevant artisan (e.g., a computer engineer with experience in internet-based technologies, including web interfaces and web-based media). Pet. 21–28; Pet. Reply 8–16; *see supra* § III.B. We agree with Petitioner, as discussed below.

The screenshot shows a web interface titled "Dizpersion". At the top right are links for "log off" and "threshold". Below these are tabs for "accounts", "advertiser", "website", and "newspaper". A secondary set of tabs includes "Broadcast Ad", "Ad Upload", "Coupon", "Quantity", "Channels", "Geographic", "Demographic", and "Summary". The "Broadcast Ad" tab is active, showing a form with the following fields: "Company Name", "User Name", "Street Address", "City, State Zip", and a "Home" button. To the right of these fields is a "Steps" section with six numbered instructions: 1. Enter the Number of Impressions Purchased. 2. Select the Broadcast Start Date. 3. Select the Broadcast Start Time and Time Zone. 4. Select the Broadcast End Date. 5. Select the Broadcast End Time and Time Zone. 6. Press Submit. Below the steps are input fields for "Impressions" (labeled 221), "Start Date" (with dropdowns for Month, Day, and Year 2001, labeled 222), "Start Time" (with dropdowns for 1:00 and AM, labeled 223), "Start Zone" (with a dropdown for Eastern, labeled 224), "End Date" (with dropdowns for Month, Day, and Year 2001, labeled 225), "End Time" (with dropdowns for 1:00 and AM), and "Time Zone" (with a dropdown for Eastern). A "Submit" button is at the bottom right. The footer contains "2001 Dizpersion Corporation", "Contact Us", "Privacy", and "Terms of Use".

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FIG. 8

Figure 8 illustrates one embodiment of an advertisement (impressions) quantity and duration definition webpage.

Petitioner argues that “Figure 8 shows one example that depicts the ability to specify buy options that include the number of webpage impressions to purchase and the start and end dates/times for the advertisement.” Pet. 21. Indeed, Nicholas expressly describes specifying the number of advertising impressions purchased and the duration for such advertising:

FIG. 8 illustrates one embodiment of a web-interface 220 for defining the quantity and/or duration that an ad should be displayed on ad selection node 140. *A standard method for defining the quantity and/or duration of a network advertisement is to specify a number of impressions, or the number of times the advertisement will be delivered. The user may specify the*

number of impressions in *form input 221*. In one embodiment of the present invention the user may select a start date, which is the date on which the advertisement will begin its broadcast on ad selection node 140. . . . In one embodiment of the present invention the user may select an end date, which is the date on which the advertisement will end its broadcast on ad selection node 140.

Ex. 1003 ¶ 61 (cited at Pet. 22). Petitioner argues that “[t]he number of impressions is ‘**predetermined**’ because the number of impressions was determined by the advertiser by specifying the number through the graphical interface of Figure 8, which occurred before ad selection node 140 obtained the advertiser’s selection from advertiser node 160.” Pet. 27 (citing Ex. 1002 ¶ 109).

Patent Owner responds that limitations 1[c] and 1[d], when read together, require first, “the generation of a webpage presenting advertising buy options to a client for the client’s selection”; and second, “obtaining the client ‘selection’ of the ‘advertising buy options’ that have been presented to it (in element [c]) where the selected buy options include ‘at least one website of the respective websites and a predetermined number of impressions of the advertising material for users visiting the at least one website.’” PO Resp. 22 (emphasis omitted); *see* PO Sur-reply 1–3. Patent Owner argues, “[t]o allow the client to provide such selections, [the relevant artisan] would have understood these elements to require that the ‘advertising buy options’ presented in element [c] must include selectable options of ‘at least one website’ and a ‘predetermined number of impressions’ from which the client can ‘select.’” *Id.* at 22–23.

In particular, Patent Owner contends that the subject claim limitations *require* providing, *inter alia*, “a list of numbers of impressions (e.g., 10,000,

100,000, 1,000,000, etc.) from which a particular number of impressions can be selected” by the client. PO Resp. 23 (citing Ex. 2009 ¶ 79). That is, Patent Owner argues the subject claim limitations *require* that the client must select from one or more *already-listed* impression numbers, and *exclude* an input form/box where the client would enter a number and subsequently select that number as the predetermined number of impressions. *See id.* at 25–26 (“Entering a value is not selecting a displayed option. Nor is entering a value in real-time selecting a predetermined option.”; “[S]pecifying’ is not selecting an option, and real-time entry is not an option predetermined by the system for the user’s selection.”); PO Sur-reply 3–5 (“[P]roviding a text box and accepting a client/advertiser-entered number therein is not the ‘generating’/‘providing’ for selection, or the actual ‘selection’ of, an ‘advertising buy option’ that includes ‘a predetermined number of impressions of the advertising material’ required by elements [c]/[d].” (emphasis omitted)); *but see* Pet. Reply 12–13 (“[T]he claim does not require display of or a selection from a ‘predetermined option.’”). We find Patent Owner’s arguments unavailing, particularly because they are not commensurate with the scope of claim 1, and ignore the level of skill of the relevant artisan and the context before us—*obviousness*.

First, we find no limitation in claim 1—and Patent Owner does not direct us to any—that limits the mechanism (or format) by which a predetermined number of impressions is obtained via input in a graphical user interface (e.g., check a box next to a number and click “submit,” enter a number and click “submit,” etc.). *See* Pet. Reply 10–11; PO Sur-reply 5 (Patent Owner stating it “did not argue the claims require any particular

visual format.”). The Specification also is silent in this regard.⁴ *See generally* Ex. 1001. We agree with Petitioner that “[a]n advertiser who affirmatively chooses to enter ‘1,000’ into the text entry box in Nicholas is no less making a ‘selection’ of the advertising buy options that comprise a predetermined number of advertising impressions, than an advertiser who selects that same number from a displayed list.” Pet. Reply 11–12 (citing Ex. 1026 ¶¶ 23, 26). Even Patent Owner’s expert, Dr. Myler, testified that Nicholas discloses making such a selection. Ex. 1027, 46:24–47:2 (“Q. So you would agree that Nicholas discloses that the user can select the number of impressions for the advertisement; correct? A. Yes.”).

Second, we reject Patent Owner’s implied interpretation(s) of “predetermined” as used in “*predetermined* number of impressions of the advertising material” in claim 1 to mean anything narrower than simply “determined beforehand,” and in this particular usage, determined *before a processor obtains a selection of an advertising buy option* (i.e., before

⁴ Petitioner argues, and we agree, “Patent Owner does not cite anything in the intrinsic record that would require that the client select from a list of displayed values. The patent does not, for example, disclose any exemplary screen displays or otherwise provide any details about the claimed user interface for obtaining a selection of a predetermined number of impressions.” Pet. Reply 51 (citing Ex. 1026 ¶ 29; Ex. 1027, 37:7–38:16).

submitting the advertising buy option to the processor).^{5,6} Simply put, one must establish a number to which to count before submitting that number for counting purposes.

Patent Owner argues that “the predetermination must occur before the ‘advertising buy option’ is generated/provided”:

Something that is determined by the client/advertiser in its head and typed into a text box is not generated/provided for the client/advertiser’s selection and then selected by the client/advertiser. The concept of number predetermination before advertiser selection is simply foreign to Nicholas.

PO Sur-reply 8 (emphasis and footnote omitted). We disagree. Contrary to Patent Owner’s arguments, claim 1 does not recite “generating” or “providing” “a predetermined number of impressions of the advertising material”; *rather, claim 1 recites “generating” or “providing” “a plurality of advertising buy options for selection by a given client.”* This is a significant distinction which Patent Owner urges us to ignore. In this case,

⁵ Patent Owner proffers that its arguments “reflect[] the ordinary meanings of ‘select,’ ‘option,’ and ‘predetermined’” (PO Resp. 23 n.7 (citing Exs. 2007, 2008)), but does not provide any explanation as to how so (e.g., which definitions allegedly support its contentions). To the contrary, and as argued by Petitioner, the sets of broad definitions cited by Patent Owner do not support its argument that selecting options is limited to closed-end selection from sets of predetermined options. *See* Pet. Reply 13 n.4 (citing Ex. 1026 ¶ 27). Further, these definitions expressly support our finding above that the plain and ordinary meaning of “predetermined” is simply “determined beforehand.” *See, e.g.,* Ex. 2008, 5 (“predetermine” defined as “to determine beforehand”); Ex. 2007, 4 (“predetermine” defined as “establish or decide in advance” and “beforehand”).

⁶ Petitioner argues, and we agree, “[t]he word ‘predetermined’ in limitation [d] simply refers to the specific number of impressions the advertiser had chosen for its advertisement.” Pet. Reply 14.

as Petitioner argues and we find, (i) Nicholas’s generation and provision of an option to “Enter the Number of Impressions Purchased” in form input 221 as shown in Figure 8 *is* an “advertising buy option” presented to a client; (ii) the number of impressions determined (desired) by the advertiser (user) entered in form input 221 *is* a predetermined number of impressions of the advertising material; and (iii) the subsequent selection and submission of this “advertising buy option” *is* the “selected” “advertising buy option” (which as selected comprises the predetermined number of impressions) obtained by the processor via the “Submit” button in the user interface shown in Nicholas’s Figure 8.

Patent Owner appears to argue that “predetermined” also has both (i) an implied “who” requirement, namely that the “*predetermined* number of impressions of the advertising material” must be predetermined *by the web property content owner*; and (ii) an implied “why” requirement, namely that the purpose of such “predetermined” impressions must be to allow the web property content owner “to complete its fundraising goals.” *See* PO Resp. 26 (“It would not make sense in this context for the advertiser to be the one entering the number of impressions, as such an approach would offer little fundraising guarantees for the company”); PO Sur-reply 5 n.2 (“[T]he claims require the value to be system-generated/provided.”). But, as argued by Petitioner, “the claims say nothing about fundraising guarantees,” and do not recite any limitation requiring the web property content owner to be the only one that “predetermine[s]” the number of impressions of advertising material for selection by an advertiser. Pet. Reply 14–15. We find Patent Owner’s arguments here unavailing, particularly because even if the web property content owner were to “predetermine” a list of specific numbers of

impressions for advertisers to buy, there would be no “guarantee” of fundraising for that owner, because potential advertisers could simply say “no” to such numbers and buy nothing, resulting in zero fundraising.

Finally, the question before us is *not* whether (a) Nicholas’s provision of a text input field for specifying a desired number of impressions *is the same as* (b) a pre-populated list of impression numbers (i.e., enter-a-number versus pick-a-number), although in the present context we find both provide for a “predetermined” number of impressions, as discussed above. Rather, Petitioner proffers an *obviousness* challenge. The test for obviousness is *not* whether the claimed invention is expressly suggested in any one or all of the references, but whether the claimed subject matter would have been obvious to those of ordinary skill in the art *in light of the combined teachings of those references*. See *In re Keller*, 642 F.2d 413, 425 (CCPA 1981); *In re Burckel*, 592 F.2d 1175, 1179 (CCPA 1979) (“[A] reference must be considered not only for what it expressly teaches, but also for what it fairly suggests.”). One of ordinary skill can use his or her ordinary skill, creativity, and common sense to make the necessary adjustments and further modifications to result in a properly functioning device. See *KSR*, 550 U.S. at 418 (“[A] court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.”).

In this case, the relevant artisan includes a *computer engineer* with experience in internet-based technologies, including web interfaces and web-based media. See *supra* § III.B. Nicholas expressly discloses, including to such a computer engineer, a variety of user input techniques presented via web-interfaces: (i) drop-down menus with pre-populated options (Fig. 6, items 203, 206; Fig. 8, items 222–225 (pre-populated

date/time options)); (ii) text input fields, including those with assisted completion options (Fig. 6, item 205; Fig. 7, item 212; Fig. 8, item 221 (“Impressions”)); and (iii) radio-button-selected pre-populated options (Fig. 7, item 211; Fig. 9, items 231, 232). Nicholas itself discloses use of both drop-down menus and radio-buttons present via web interfaces for purposes of having users select pre-populated options, like pre-populated numbers of impressions to purchase. Thus, even if Patent Owner’s interpretation of limitations 1[c] and 1[d] were accepted, we find that presenting an advertising client with pre-populated options for impression numbers (rather than text-entry field(s) for such numbers) would have been obvious to such a computer engineer in light of Nicholas’s web interface teachings, like those outlined above.

In addition, to the extent that Patent Owner contends that Nicholas does not teach providing and/or selecting advertising buy options that comprise “at least one website of the respective websites” (PO Resp. 21–27), we find Patent Owner’s arguments unavailing. As Petitioner argues (Pet. 22–23), and we agree, Nicholas expressly discloses selecting at least one website from multiple websites:

FIG. 9 illustrates one embodiment of a web-interface 230 for defining the *web sites* or other network channels over which the advertisement may be displayed. In one embodiment the user may *select any combination of sites* and network channels available to ad selection node 140. In one embodiment only the *sites* and network channels that support the type of advertisement specified on web-interface 200 (FIG. 6) will be displayed. In one embodiment, *web sites* or network channels may be organized into categories based upon subject matter, user demographic, or some other method of categorization. The *user may specify that all sites* or network channels in a category may display the advertisement by selecting category form element 231. For

example, *the user may specify that their advertisement be displayed on all sports sites*, or all sites relating to women, or all news sites. In one embodiment, selecting category form element 231 may cause individual web site and network channel form elements 232 to be selected. In one embodiment the user may deselect those websites and network channels of form elements 232 on which she does not wish to display the advertisement.

Ex. 1003 ¶ 62, Fig. 9 (emphases added) (cited at Pet. 22–23).

Accordingly, for the foregoing reasons and those set forth in the Petition (Pet. 21–28), we determine that Petitioner demonstrates by a preponderance of the evidence that the combination of Nicholas, Laidlaw, Mayadas, and Error would have disclosed, taught, or at least fairly suggested limitations 1[c] and 1[d] of claim 1 to the relevant artisan.

(2) *Placing Advertising Material Within Web Property Content*

Claim 1 recites:

[f] based on obtaining the selection, populating, by the one or more processors, the advertising material on the at least one website, wherein the populating comprises placing the advertising material within web property content of the at least one website

Ex. 1001, 10:55–59 (emphases added).

Petitioner contends Nicholas teaches “that content provider node 130 (the ‘at least one website’ where advertisements will be shown) provides HTML code that causes the browser to issue a request for advertising material from the ad selection node 140 (‘the one or more processors’),” and “[t]he advertising material will then be populated within the web property (e.g., banner advertisement location on the webpage) by being presented to the user when the website is displayed.” Pet. 38 (emphases omitted) (citing Ex. 1003 ¶¶ 102–103; Ex. 1002 ¶ 126). More simply, Petitioner argues

Nicholas discloses “placing advertising material within web property content” via “an example website page populated with advertising material 305 (Best Buy) within the site’s web property content,” reproduced below. Pet. 38–39 (citing Ex. 1003 ¶ 1; Ex. 1013, Fig. 3, 4:11–12 (exhibit page)).

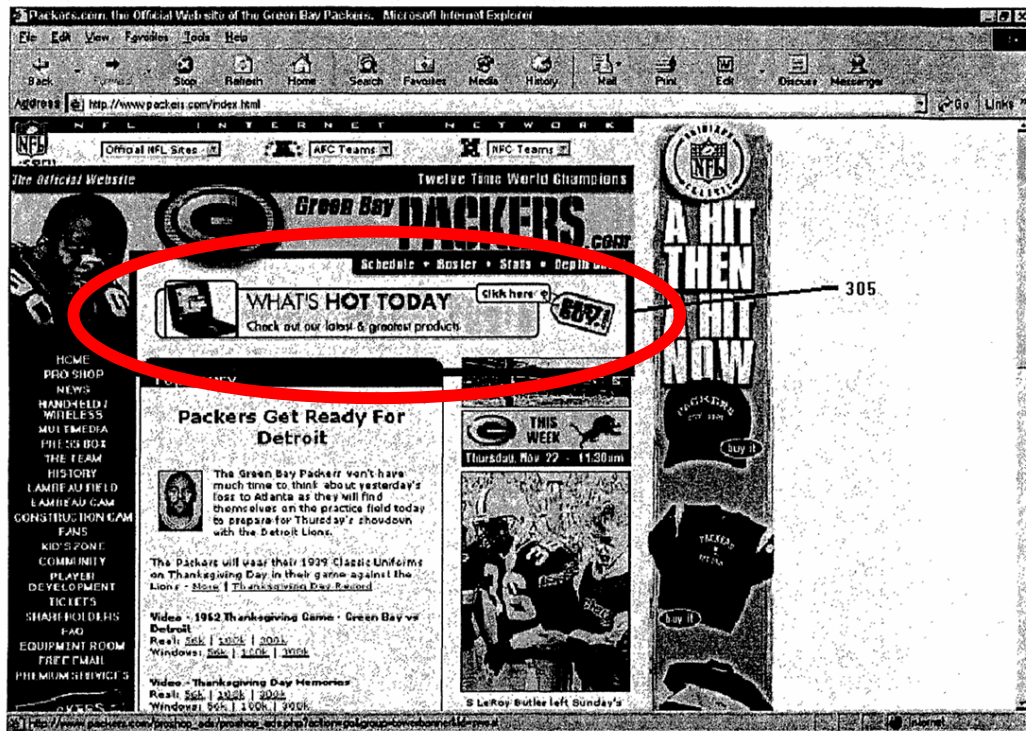


Figure 3 depicts an advertisement being served into a consumer web site (red oval added by us to highlight advertisement).

Ex. 1013, Fig. 3, 4:11–12 (exhibit page).

Patent Owner proffers various counter-arguments concerning the subject limitation, all of which rely on its narrow construction of “web property content” to mean “a discrete user-accessible file on a website for which revenue is being sought” (PO Resp. 14). *See* PO Resp. 27–31; PO Sur-reply 9–22. But as discussed above in Section III.C, we reject this construction, and thus, find Patent Owner’s arguments unavailing.

We agree with Petitioner that Nicholas plainly discloses placing advertising material (e.g., Best Buy advertisement) within web property content (i.e., content provided on a webpage of a website) of at least one website, like *packers.com* (i.e., placing A within B). *See, e.g.*, Ex. 1013, Fig. 3, 4:11–12 (exhibit page). Indeed, during the oral hearing, when asked to assume that the material shown on the *packers.com* webpage reproduced above constitutes “web property content,” Patent Owner’s counsel conceded that “[the Best Buy] advertisement would be within the content.” Tr. 55:22–26.

Accordingly, for the foregoing reasons and those set forth in the Petition (Pet. 37–41), we determine that Petitioner demonstrates by a preponderance of the evidence that the combination of Nicholas, Laidlaw, Mayadas, and Error would have disclosed, taught, or at least fairly suggested limitation 1[f] of claim 1 to the relevant artisan.

*(3) Monitoring Impressions of Advertising
Material and Determining Impression
Validity*

Claim 1 recites:

- [g] monitoring, by the one or more processors, a number of impressions of the advertising material provided to users accessing the web property content displayed on the at least one website;
- [h] determining, by the one or more processors, whether an impression of the advertising material is valid, wherein the impression is valid based on a predetermined impression tracking system;

Ex. 1001, 10:60–67.

Petitioner explains persuasively how Nicholas teaches the “monitoring” feature of limitation 1[g]:

[T]he advertiser can specify the “number of impressions, or the number of times the advertisement will be delivered.” (Nicholas, ¶0061.) As further explained, Nicholas discloses a mechanism for ceasing delivery of advertising impressions once the specified number has been reached. For example, “should the advertisement be served up to the number of impressions prior to the end time, it may automatically stop being served.” (Nicholas, ¶0062.) It would have been obvious that, in order for ad selection node 140 to stop delivering advertisements once the number of impressions has reached the number specified by the advertiser, ad selection node 140 would have monitored the number of impressions. (EX1002, ¶131.) Indeed, Nicholas expressly discloses that ad selection node 140 creates a record indicating the number of impressions that occurred during the time period specified by the advertiser. (Nicholas, ¶¶0114 (“... advertiser record ARX further includes a unique identifier for the advertiser... [and] the number of impressions made in this timeframe...”); 0124 (“a number of impressions occurring”).) Monitoring the number of impressions for an advertisement was (and remains today) a basic and fundamental aspect of Internet-based advertising. (EX1002, ¶129.)

Pet. 41–42; *see* Pet. Reply 20–22.

Petitioner also explains persuasively how Error teaches the “determining” of impression validity feature of limitation 1[h] by disclosing “a ‘single-pixel’ image technique for determining that an impression is valid,” e.g., by using “cookies.” Pet. 42–45. Petitioner’s expert, Dr. Crovella, testifies that this “single-pixel” impression tracking technique would have been a “well-known” technique to the relevant artisan, and as described by Error, operates as follows:

[A] URL link for a single pixel (or transparent) image file is embedded onto a webpage that is delivered to a web browser. The image is not meant to be viewed and will likely not be visible to the user. After the user’s browser receives the webpage, it uses the embedded URL link to request the single-pixel image from a server. The receipt of that request by the server provides

an indication that the user's web browser *actually* received and presented the web page to the user.

Ex. 1002 ¶ 133 (citing Ex. 1007, 1:36–54, 2:6–21); *see id.* at ¶¶ 132–139.

Patent Owner proffers various counter-arguments concerning the subject limitations, all of which rely on its narrow construction of “web property content” to mean “a discrete user-accessible file on a website for which revenue is being sought” (PO Resp. 14). *See* PO Resp. 31–34; PO Sur-reply 22–24 (“The Parties’ disputes as to these elements largely relate to their differing positions as how [the relevant artisan] would have understood ‘website’ and ‘web property content.’”). But as discussed above in Section III.C, we reject this construction, and thus, find Patent Owner’s arguments unavailing.

Accordingly, for the foregoing reasons and those set forth in the Petition (Pet. 41–45), we determine that Petitioner demonstrates by a preponderance of the evidence that the combination of Nicholas, Laidlaw, Mayadas, and Error would have disclosed, taught, or at least fairly suggested limitations 1[g] and 1[h] of claim 1 to the relevant artisan.

(4) *Determining a Number of Valid Impressions
and Collecting Advertising Revenue for Web
Property Content Owner*

Claim 1 recites:

[k] based on determining a number of valid impressions are met,
electronically collecting, by the one or more processors, a
share of the advertising revenue to be transmitted to the
web property content owner.

Ex. 1001, 11:8–11.

Petitioner contends Mayadas discloses transmitting a share of advertising revenue to a web property content owner (e.g., publisher):

In operation, a targeted message sponsor provides a targeted message, such as an advertisement, to the system for distribution. The targeted message sponsor specifies the parameters of distribution of the targeted message including the users to which the message is to be distributed. The targeted message sponsor pays into an escrow account held by the system. The targeted message is published on one or more publishers, according to the parameters set by the message sponsor. Also, the message is published to selected users when they interact with one of the selected publishers. *When a user interacts with a targeted message, such as clicking on the targeted message display, the publisher, the user, and any data aggregator involved in targeting the message are compensated from the escrow account.*

Ex. 1005 ¶ 15 (emphases added) (quoted in part at Pet. 47); *see* Pet. 48 (discussing “electronically collecting” funds); Ex. 1002 ¶ 144. Petitioner submits that the “publisher” in Mayadas corresponds to the owner of the website where the advertisement is delivered. Pet. 47 (citing Ex. 1005 ¶ 34).

Petitioner contends Mayadas does so based on determining *a number of* valid impressions. Pet. 48–51. In particular, Petitioner contends Mayadas teaches collecting funds after *each* advertising impression. Pet. 48–49 (citing Ex. 1005 ¶ 38 (“Advertisers place funds in an escrow account. An amount from the escrow account is paid out each time an advertisement is served.”), ¶ 43 (“Each time the advertisement is served and the specified action is taken by the consumer, the advertiser’s escrow account is debited for the one action.”)). Petitioner argues that “[u]nder this implementation, ‘a number of valid impressions’ would correspond to a single valid impression and would trigger the claimed electronic collection.” Pet. 49 (citing Ex. 1002 ¶ 146).

Petitioner alternatively contends that it would have been obvious to the relevant artisan “to perform the step of electronically collecting after a

larger number of valid impressions had completed, such as after each group of 1,000 advertising impressions or after all advertising impressions were delivered.” Pet. 49 (citing Ex. 1002 ¶ 147). Petitioner argues, as disclosed by Nicholas, that it “was well-known[] that advertisements were commonly priced based on the cost per one thousand impressions, commonly known as ‘CPM.’” Pet. 49–50 (citing Ex. 1003 ¶ 87, Fig. 18 (showing various “CPM” accountings)). “[I]f an advertiser purchased a certain number of CPM packages, it would have been obvious to have performed the electronically collecting step after delivery of each, or all, CPM packages.” Pet. 50. Petitioner argues that “[t]hese collection frequencies are directly suggested by CPM-based pricing disclosed in Nicholas, which is based on packages of 1,000 impressions,” and the relevant artisan “would have been motivated to perform the step of electronically collecting after each CPM package of impressions was delivered, or after all CPM packages of impressions were delivered, in order to improve the performance and simplify the system by reducing the number of times the collection step must be performed.” Pet. 51 (citing Ex. 1002 ¶¶ 148–149).

Patent Owner responds in various unavailing ways. See PO Resp. 34–37. First, Patent Owner argues that Petitioner fails to show this limitation because it does not identify any “web property content,” and thus any “web property content owner,” based on Patent Owner’s narrow construction of “web property content” to mean “a discrete user-accessible file on a website for which revenue is being sought” (PO Resp. 14). See PO Resp. 35. But as discussed above in Section III.C, we reject this construction, and thus, find Patent Owner’s argument unavailing.

Second, Patent Owner argues that the phrase “a number of valid impressions” cannot be satisfied by a “single” valid impression. PO Resp. 35–36. Patent Owner alleges that the relevant artisan “would have understood this phrase to require a plural number of impressions based on the plain meaning of the term (*e.g.*, impressions requires a plural number).” *Id.* at 35 (citing Ex. 2009 ¶ 114); *see id.* at 36 (Patent Owner arguing that “the claims of the ’898 patent do not cover such a situation” of collecting payment based on a single valid impression.); PO Sur-reply 24–25.

We disagree, particularly as Patent Owner seeks to rewrite the plain language of the subject limitation. As argued by Petitioner (Pet. Reply 22), this limitation expressly recites “a number of” valid impressions, and *not* “a *plural* number of” such impressions as argued by Patent Owner. We find unavailing the argument that “valid impressions” mandates that the preceding “a number of” be more than one impression.⁷ For example, both “*one* of the valid impressions” and “*two* of the valid impressions” include plural “valid impressions,” but that does not negate having “one” of many. *See* Pet. Reply 23 (“The fact that patentee knew how to specify a ‘plurality’ of items, but chose not to do so in limitation [k], provides compelling evidence that Patent Owner’s argument is incorrect.”).

⁷ Patent Owner even contradicts itself on this point: on the one hand, Patent Owner argues “‘a number of valid impressions’ requires more than one impression *because ‘impressions’ is plural*,” but on the other hand, argues that “*one* or more valid *impressions*” would allow for *one* impression despite the same use of plural “impressions.” PO Sur-reply 24–25 (emphases added). Notably, Patent Owner does not address how “one or more” and “a number of” valid impressions allegedly are different.

Finally, Patent Owner argues that Mayadas’s “payment-per-ad-service is an important feature to reduce risk,” and “just because ads are *priced* on a volume basis does not make it obvious that a separate payment will not be made until a particular number of valid impressions has been reached.” PO Resp. 36–37; *see* PO Sur-reply 25–26. Petitioner responds, and we agree, that the risk reduction feature of Mayadas is not pertinent to Petitioner’s “proposed modification to the frequency of collection”:

The escrow in Mayadas reduces risk by preventing the advertiser’s funds from being transferred to publishers before advertisements have run. That protection exists regardless of whether revenue is deducted from the escrow after each impression or after a larger block of impressions (*e.g.* after each 1,000 impressions). If anything, collecting revenue from the escrow less frequently increases the likelihood that the advertiser can recover funds if something goes wrong, because a larger balance will likely remain in escrow due to the reduced collection frequency.

Pet. Reply 23–24.⁸ Petitioner also responds that “[t]he ’898 patent itself confirms that CPM pricing was known” (*see* Ex. 1001, 6:16–23), and argues persuasively that “CPM is not simply a pricing framework; it defines a commercial unit in the delivery of Internet advertising impressions, thus making it obvious for collection of revenue to occur upon delivery of 1,000 ads” (or after all requested impressions). Pet. Reply 24 (citing Ex. 1002

⁸ Patent Owner alleges that Petitioner’s argument here was not advanced in the Petition, but does not otherwise respond. PO Sur-reply 26. We find that Petitioner’s argument is a legitimate reply to arguments introduced in Patent Owner’s Response concerning Mayadas and reasons to modify Mayadas. *See Everstar Merch. Co. v. Willis Elec. Co.*, No. 2021-1882, 2022 WL 1089909, at *4 (Fed. Cir. Apr. 12, 2022) (citing *Apple Inc. v. Andrea Elecs. Corp.*, 949 F.3d 697, 706–07 (Fed. Cir. 2020)).

¶¶ 147–149; Ex. 1026 ¶ 43). Notably, Patent Owner does not offer *why* the known commercial unit in the delivery of Internet advertising impressions (i.e., CPM) would not have at least fairly suggested to the relevant artisan collecting funds for transmission to a web property content owner *after one or more such units have been delivered* (e.g., after 1,000 advertising impressions).

Accordingly, for the foregoing reasons and those set forth in the Petition (Pet. 47–51), we determine that Petitioner demonstrates by a preponderance of the evidence that the combination of Nicholas, Laidlaw, Mayadas, and Error would have disclosed, taught, or at least fairly suggested limitation 1[k] of claim 1 to the relevant artisan.

c) Remaining Limitations of Claim 1

Petitioner contends the remaining limitations of independent claim 1, including limitations 1[pre], 1[a], 1[b], 1[e], 1[i], and 1[j], also are disclosed, taught, or at least fairly suggested by the combination of Nicholas, Laidlaw, Mayadas, and Error. Pet. 8–21, 28–37, 45–47; *see id.* at 8–51. The Petition provides a detailed assessment of these remaining limitations, with references to disclosures in Nicholas, Laidlaw, Mayadas, and Error and the declaration testimony of Petitioner’s expert, Dr. Crovella. *See, e.g.*, Pet. 8–21, 28–37, 45–47. Patent Owner does not contend that the remaining limitations in claim 1 are absent in the combination of Nicholas, Laidlaw, Mayadas, and Error, except as implicated by the disputed limitations, and therefore, has waived such arguments.⁹ For the reasons set forth in the

⁹ *See In re NuVasive, Inc.*, 842 F.3d 1376, 1379–82 (Fed. Cir. 2016) (holding that patent owner waived arguments on an issue that were not raised in its response after institution); *see also Papst Licensing GmbH &*

Petition (Pet. 8–21, 28–37, 45–47; *see id.* at 8–51), and based on the evidence cited therein, we determine that Petitioner demonstrates by a preponderance of the evidence that the combination of Nicholas, Laidlaw, Mayadas, and Error would have disclosed, taught, or at least fairly suggested these remaining limitations to the relevant artisan.

d) Conclusion for Independent Claim 1

For the foregoing reasons, and based on the complete record before us, we determine that Petitioner has demonstrated by a preponderance of the evidence that independent claim 1 would have been unpatentable as obvious to the relevant artisan¹⁰ over the combination of Nicholas, Laidlaw, Mayadas, and Error.

6. Independent Claims 10 and 19 and Dependent Claims 2–6, 9, 11–15, and 18

Independent claims 10 and 19 recite limitations commensurate in scope with independent claim 1, except claim 10 is directed to a “computer program product” that uses “a computer readable storage medium readable by one or more processors and storing instructions for execution by the

Co. KG v. Samsung Elecs. Am., Inc., 924 F.3d 1243, 1250 (Fed. Cir. 2019) (holding patent owner forfeited argument for patentability not presented to the Board); *Bradium Techs. LLC v. Iancu*, 923 F.3d 1032, 1048 (Fed. Cir. 2019) (explaining that arguments not presented to the Board are waived).

¹⁰ “When considering obviousness of a claimed invention, the Supreme Court has emphasized that the ‘person of ordinary skill is also a person of ordinary creativity, not an automaton.’” *Fleming v. Cirrus Design Corp.*, 28 F.4th 1214, 1223 (Fed. Cir. 2022). We assume the relevant artisan is a person of ordinary creativity with common sense, common wisdom, and common knowledge. *Id.* (citing *Randall Mfg. v. Rea*, 733 F.3d 1355, 1362 (Fed. Cir. 2013); *KSR*, 550 U.S. at 421).

processor for performing [the method of claim 1],” and claim 19 is directed to a “system” using memory, processors, and program instructions to perform the method of claim 1. *Compare* Ex. 1001, 10:29–11:11, *with id.* at 11:52–12:37, *and id.* at 13:9–14:26. Petitioner persuasively addresses these minor variants of claim 1. *See* Pet. 60–61. Patent Owner does not argue patentability of these claims separate from independent claim 1. *See generally* PO Resp. As discussed above, we are persuaded that the cited evidence sufficiently supports Petitioner’s contention that independent claim 1 would have been unpatentable as obvious over the combination of Nicholas, Laidlaw, Mayadas, and Error. For the reasons set forth in the Petition (Pet. 60–61), we also are persuaded that the complete record sufficiently supports Petitioner’s challenges to independent claims 10 and 19 over the combination of Nicholas, Laidlaw, Mayadas, and Error. Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that independent claims 10 and 19 would have been unpatentable as obvious to the relevant artisan over the combination of Nicholas, Laidlaw, Mayadas, and Error.

Claims 2–6, 9, 11–15, and 18 depend directly or indirectly from one of independent claims 1 and 10. Ex. 1001, 11:12–28, 11:46–51, 12:38–53, 13:3–8. The Petition provides a detailed assessment of these claims, with references to the Petition’s analysis of claims 1 and 10, disclosures in Nicholas, Laidlaw, Mayadas, and Error, and the declaration testimony of Dr. Crovella. Pet. 51–61. Patent Owner does not contend that the limitations in claims 2–6, 9, 11–15, and 18 are absent in the combination of Nicholas, Laidlaw, Mayadas, and Error, and therefore, has waived such arguments. *See In re NuVasive*, 842 F.3d at 1379–82; *see generally* PO

Resp.; PO Sur-reply. As discussed above, we are persuaded that the cited evidence sufficiently supports Petitioner's contentions that independent claims 1 and 10 (and 19) would have been unpatentable as obvious over the combination of Nicholas, Laidlaw, Mayadas, and Error, and also are persuaded that the cited evidence sufficiently shows claims 2–6, 9, 11–15, and 18 likewise obvious. For the same reasons provided above for independent claims 1 and 10, and the reasons set forth in the Petition (Pet. 51–61), we conclude that Petitioner has demonstrated by a preponderance of the evidence that dependent claims 2–6, 9, 11–15, and 18 would have been unpatentable as obvious to the relevant artisan over the combination of Nicholas, Laidlaw, Mayadas, and Error.

E. Obviousness of Claims 7, 8, 16, 17, and 20 over the Combination of Nicholas, Laidlaw, Mayadas, Error, and Yasnovsky

Petitioner contends dependent claims 7, 8, 16, 17, and 20 would have been unpatentable under 35 U.S.C. § 103 as obvious over the combination of Nicholas (Ex. 1003), Laidlaw (Ex. 1004), Mayadas (Ex. 1005), Error (Ex. 1007), and Yasnovsky (Ex. 1006). Pet. 61–67; Pet. Reply 24–25. Patent Owner opposes Petitioner's contentions. PO Resp. 37–38; PO Sur-reply 27. For the reasons expressed below, and based on the complete record before us, we determine that Petitioner has demonstrated by a preponderance of the evidence that claims 7, 8, 16, 17, and 20 would have been unpatentable as obvious over the combination of Nicholas, Laidlaw, Mayadas, Error, and Yasnovsky.

1. Dependent Claims 8, 17, and 20

The parties' dispute among this set of claims focuses on dependent claim 8, which depends from claim 1 and recites:

The computer-implemented method of claim 1, further comprising:

prior to determining that the number of impressions is equal to the predetermined number of impressions, obtaining, by the one or more processors, via an input in the graphical user interface, *a request for increasing the predetermined number of impressions* of the advertising material for users visiting the at least one website; and

based on the obtaining, *automatically increasing the predetermined number of impressions.*

Ex. 1001, 11:34–45 (emphases added). Dependent claims 17 and 20 are substantially the same as dependent claim 8, except they depend from independent claims 10 and 19, respectively. *See* Ex. 1001, 12:59–13:2, 14:27–37. The parties argue these three claims together. *See* Pet. 67; PO Resp. 37.

Petitioner contends Yasnovsky discloses “the ability to manage an existing advertising campaign by changing its budget,” which according to Petitioner, the relevant artisan would have understood to mean or include changing (increasing) the predetermined number of impressions of advertising material. Pet. 64–67; *see* Ex. 1006 ¶ 49 (“The advertiser can also edit any of the following: *the campaign budget 414*, the run dates 415 of the campaign, and which ads 416 are used in the campaign.” “[T]he advertiser can make these edits *at any time* via the self-service platform.” (emphases added)), Fig. 4A (item 414, “edit budget” in “managing campaign[]” webpage); Pet. Reply 24–25. Petitioner contends Yasnovsky teaches that such changes in the advertising campaign may take place

automatically upon submission of the change request: “If the overall system is real-time or near real-time, as is the case in this example, any changes will take effect immediately or near-immediately.” Pet. 66–67 (quoting Ex. 1006 ¶ 44); *see* Ex. 1006 ¶ 49 (“If the architecture is real-time or near real-time, then these edits will result in updates to the ad orders in real-time or near real-time.”). Petitioner contends Yasnovsky teaches that such changes also would take place prior to determining that the number of impressions is equal to the predetermined number of impressions, particularly given that Yasnovsky expressly discloses such changes may be initiated “at any time” via the self-service platform. Pet. 65–66; Ex. 1006 ¶ 49; *see id.* ¶ 54 (“[W]hen the accounts falls below a threshold level, an alert is generated to remind the advertiser to refill his account.”). We find Petitioner’s arguments persuasive.

Patent Owner argues that “*Nicholas* fails to teach or suggest offering a predetermined number of impressions to the advertiser for at least the reasons set forth in element [d], and *Yanovsky* fails to correct this basic deficiency.” PO Resp. 38. We rejected this argument concerning *Nicholas* above in Section III.D.5.b.1.

Patent Owner also argues, in a single sentence, that “*Yasnovsky* teaches only editing a campaign budget, not impressions, let alone seeking an increase of impressions offered to an advertiser.” PO Resp. 38; *see* PO Sur-reply 27. But Patent Owner does not explain *why* increasing a campaign budget would not have taught or at least fairly suggested *to the relevant artisan* increasing the number of impressions. *See* Pet. Reply 25 (“Patent Owner does not address any of the analysis in the Petition on this issue.”). To the contrary, we find Petitioner sufficiently evidences that Yanovsky’s

teachings about increasing a campaign budget, when combined with the teachings of Nicholas concerning determining a number of impressions for advertisements, and that advertisements were commonly priced based on the cost per one thousand impressions (CPM), would have taught or at least fairly suggested to the relevant artisan the limitations of claim 8, such as increasing the predetermined number of impressions of the advertising material. *See, e.g.*, Ex. 1006 ¶¶ 40, 44, 49; *supra* § III.D.5.b.1, III.D.5.b.4. As for Patent Owner's apparent argument that claim 8 (with independent claim 1) requires the web property content owner to offer the increased number of impressions, we also rejected this argument above in Section III.D.5.b.1 (rejecting Patent Owner's implied "who" requirement).

For the foregoing reasons, and based on the complete record before us, we determine that Petitioner has demonstrated by a preponderance of the evidence that dependent claims 8, 17, and 20 would have been unpatentable as obvious to the relevant artisan over the combination of Nicholas, Laidlaw, Mayadas, Error, and Yasnovsky.

2. Claims 7 and 16

Claims 7 and 16 depend directly from independent claims 1 and 10, respectively. Ex. 1001, 11:29–33, 12:54–58. The Petition provides a detailed assessment of these claims, with references to the Petition's analysis of claims 1 and 10, disclosures in Nicholas, Laidlaw, Mayadas, Error, and Yasnovsky, and the declaration testimony of Dr. Crovella. Pet. 61–64, 67. Patent Owner does not contend that the limitations in claims 7 and 16 are absent in the combination of Nicholas, Laidlaw, Mayadas, Error, and Yasnovsky, and therefore, has waived such arguments. *See In re NuVasive*, 842 F.3d at 1379–82; *see generally* PO Resp.; PO Sur-reply. As discussed

above, we are persuaded that the cited evidence sufficiently supports Petitioner's contentions that independent claims 1 and 10 (and 19) would have been unpatentable as obvious over the combination of Nicholas, Laidlaw, Mayadas, and Error, and also are persuaded that the cited evidence sufficiently shows claims 7 and 16 likewise obvious. For the same reasons provided above for independent claims 1 and 10, and the reasons set forth in the Petition (Pet. 61–64, 67), we conclude that Petitioner has demonstrated by a preponderance of the evidence that dependent claims 7 and 16 would have been unpatentable as obvious to the relevant artisan over the combination of Nicholas, Laidlaw, Mayadas, Error, and Yasnovsky.

F. Obviousness of (i) Claims 1–6, 9–15, 18, and 19 over Nicholas, Laidlaw, Mayadas, Error, and Manowitz; and (ii) Claims 7, 8, 16, 17, and 20 over Nicholas, Laidlaw, Mayadas, Error, Yasnovsky, and Manowitz

Petitioner contends that the following sets of claims also would have been unpatentable under 35 U.S.C. § 103 as obvious: (i) Claims 1–6, 9–15, 18, and 19 over Nicholas, Laidlaw, Mayadas, Error, and Manowitz; and (ii) Claims 7, 8, 16, 17, and 20 over Nicholas, Laidlaw, Mayadas, Error, Yasnovsky, and Manowitz.

Petitioner explained the “back-up” basis for these challenges as follows:

Patent Owner in the pending litigation has suggested that the claimed “web property content owner” in the independent claims must be different from the owner or publisher of the website on which the content is populated. Even if this were a requirement of the challenged claims, the claims would nevertheless be obvious over the prior art cited for Grounds 1-2, in further view of Manowitz (EX1015). For all aspects of the challenged claims, the analysis from Grounds 1-2 remains applicable here.

Pet. 67 (emphases omitted). But in its responsive briefing, Patent Owner did not proffer such an argument, thus rendering these grounds redundant. *See generally* PO Resp.; PO Sur-reply. During the oral hearing, Petitioner’s counsel effectively waived these challenges:

I respectfully submit I’m not sure you need to address Grounds 3 and 4. They were presented solely to account for a potential claim construction position we thought Patent Owner may take. We don’t perceive that they have taken that position. So our position is that Your Honors don’t need to address Grounds 3 and 4 unless -- obviously unless they raise an argument to the contrary.

Tr. 4:22–5:1.

We agree with Petitioner that Patent Owner has not proffered any argument that would implicate these additional challenges. Regardless, as discussed above in Sections III.D and III.E, we conclude that Petitioner has demonstrated by a preponderance of the evidence that all of the Challenged Claims (i.e., claims 1–20) would have been unpatentable under 35 U.S.C. § 103 over the asserted prior art. Therefore, resolution of this proceeding does not require assessment of the foregoing challenges based on the additional Manowitz reference, and so for efficiency, we need not and do not address these challenges in this Decision. *See SAS Inst. Inc. v. Iancu*, 584 U.S. 357, 371 (2018) (holding a petitioner “is entitled to a final written decision addressing all of the claims it has challenged”); *Boston Sci. Scimed, Inc. v. Cook Grp. Inc.*, 809 F. App’x 984, 990 (Fed. Cir. 2020) (non-precedential) (recognizing that the “Board need not address issues that are not necessary to the resolution of the proceeding” and, thus, agreeing that the Board has “discretion to decline to decide additional instituted grounds once the petitioner has prevailed on all its challenged claims”).

IV. CONCLUSION

Petitioner has met its burden to show, by a preponderance of the evidence, that all of the Challenged Claims (i.e., claims 1–20) would have been unpatentable under 35 U.S.C. § 103 as obvious over the combination of Nicholas, Laidlaw, Mayadas, and Error or the combination of Nicholas, Laidlaw, Mayadas, Error, and Yasnovsky.¹¹ Because of this determination accounting for all Challenged Claims, we exercise our discretion to decline to decide Petitioner’s additional challenges to the same claims, which Petitioner’s counsel effectively waived during oral hearing (Tr. 4:22–5:1).

¹¹ Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this decision, we draw Patent Owner’s attention to the April 2019 *Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding*. See 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. See 37 C.F.R. § 42.8(a)(3), (b)(2).

In summary:

Claim(s)	35 U.S.C. §	Reference(s)/ Basis	Claim(s) Shown Unpatentable	Claim(s) Not Shown Unpatentable
1–6, 9–15, 18, 19	103	Nicholas, Laidlaw, Mayadas, Error	1–6, 9–15, 18, 19	
7, 8, 16, 17, 20	103	Nicholas, Laidlaw, Mayadas, Error, Yasnovsky	7, 8, 16, 17, 20	
1–6, 9–15, 18, 19	103	Nicholas, Laidlaw, Mayadas, Error, Manowitz ¹²		
7, 8, 16, 17, 20	103	Nicholas, Laidlaw, Mayadas, Error, Yasnovsky, Manowitz ¹³		
Overall Outcome			1–20	

V. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that claims 1–20 of U.S. Patent No. 11,416,898 B2 are unpatentable; and

¹² We need not reach this ground. *See supra* Section III.F.

¹³ We need not reach this ground. *See supra* Section III.F.

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

IPR2025-00472
Patent 11,416,898 B2

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