

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FEDEX CORPORATION,
Petitioner,

v.

FLECTERE LLC,
Patent Owner.

IPR2020-00403
Patent 6,415,284 B1

Before DAVID C. McKONE, JOHN A. HUDALLA, and
STEPHEN E. BELISLE, *Administrative Patent Judges*.

BELISLE, *Administrative Patent Judge*.

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

I. INTRODUCTION

A. *Case Posture*

FedEx Corporation (“Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting an *inter partes* review of claims 1–21 of U.S. Patent No. 6,415,284 B1 (Ex. 1001, “the ’284 patent”). Flectere LLC (“Patent Owner”) waived filing of a preliminary response to the Petition. Paper 7. We instituted an *inter partes* review of claims 1–21 of the ’284 patent on all grounds of unpatentability alleged in the Petition. Paper 8 (“Institution Decision” or “Dec.”).

After institution, on September 16, 2020, Patent Owner informed the Board that it “has elected to not file a response” to the Petition. Ex. 3001. On September 24, 2020, pursuant to Section II.F of the Board’s Consolidated Trial Practice Guide¹ and the Scheduling Order in this case (Paper 9, 10), the Board held a teleconference with the parties to discuss the posture of this case and revision of due dates originally set in the Scheduling Order. *See* Paper 10. During the call, Patent Owner stated that it did not intend to request adverse judgment (*see* 37 C.F.R. § 42.73(b) (2019)), to cancel any challenged claims, or to otherwise abandon the contest. Paper 10, 2. Also during the call, we cautioned Patent Owner that “any arguments not raised in the response may be deemed waived.” Paper 9, 10; *see* 37 C.F.R. § 42.23(a) (“Any material fact not specifically denied may be considered admitted.”); *In re Nuvasive, Inc.*, 842 F.3d 1376, 1379–82 (Fed. Cir. 2016) (holding arguments of patent owner may be waived when not included in a preliminary response and response permitted during trial); *see*

¹ Available at <https://www.uspto.gov/TrialPracticeGuideConsolidated>.

also Papst Licensing GmbH & 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). Because Patent Owner elected to not file a response to the Petition, had not otherwise raised any issue in any paper filed in this case, and had not requested oral hearing in this case, on October 28, 2020, we ordered that this case would advance to final written decision under 35 U.S.C. § 318(a) on the present record. Paper 14.

We have jurisdiction under 35 U.S.C. § 6. The evidentiary standard is a preponderance of the evidence. *See* 35 U.S.C. § 316(e) (2018); 37 C.F.R. § 42.1(d). This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73.

For the reasons discussed below, we determine Petitioner has established by a preponderance of the evidence that claims 1–21 of the ’284 patent are unpatentable.

B. Related Proceedings

Petitioner indicates that the ’284 patent was involved in three U.S. district court actions, namely, *Flectere LLC v. Academy, Ltd.*, 2:18-cv-00227 (E.D. Tex.) (dismissed Dec. 4, 2018); *Flectere LLC v. Sears Brands, LLC*, 2:18-cv-00228 (E.D. Tex.) (dismissed Dec. 4, 2018); and *Flectere LLC v. Staples, Inc.*, 2:18-cv-00229 (E.D. Tex.) (dismissed Sept. 24, 2018). Pet. 69–70. Patent Owner indicates that there is no judicial or administrative matter that would affect, or be affected by, a decision in this proceeding. Paper 4, 2.

Petitioner also indicates that the '284 patent was involved in *Unified Patents Inc. v. Flectere LLC*, IPR2019-00479 (PTAB Dec. 31, 2018), in which the Board denied institution. Pet. 69–70.

We also note that Petitioner (FedEx) and Patent Owner (Flectere) are the petitioner and patent owner, respectively, in IPR2020-00400 (involving U.S. Patent No. 6,401,094 B1) and IPR2020-00402 (involving U.S. Patent No. 6,272,506 B1), in which the Board instituted *inter partes* reviews. These two cases remain pending.

C. The '284 Patent

The '284 patent is titled “Intelligent Forms for Improved Automated Workflow Processing,” and issued on July 2, 2002, from U.S. Application No. 09/344,269, filed June 30, 1999. Ex. 1001, codes (10), (21), (22), (45), (54).

The '284 patent generally relates to intelligent or “smart” forms for improved automated workflow processing. Ex. 1001, Abstract. More specifically, the '284 patent is directed to:

[I]ntelligent forms [that] are intelligently pre-populated using a business database and include logic for verification of properly supplied data to minimize effort in filling in such forms and to minimize the risk of accepting invalid form data, thus reducing the system's susceptibility to error.

Ex. 1001, 2:20–26. Figure 1 of the '284 patent is reproduced below.

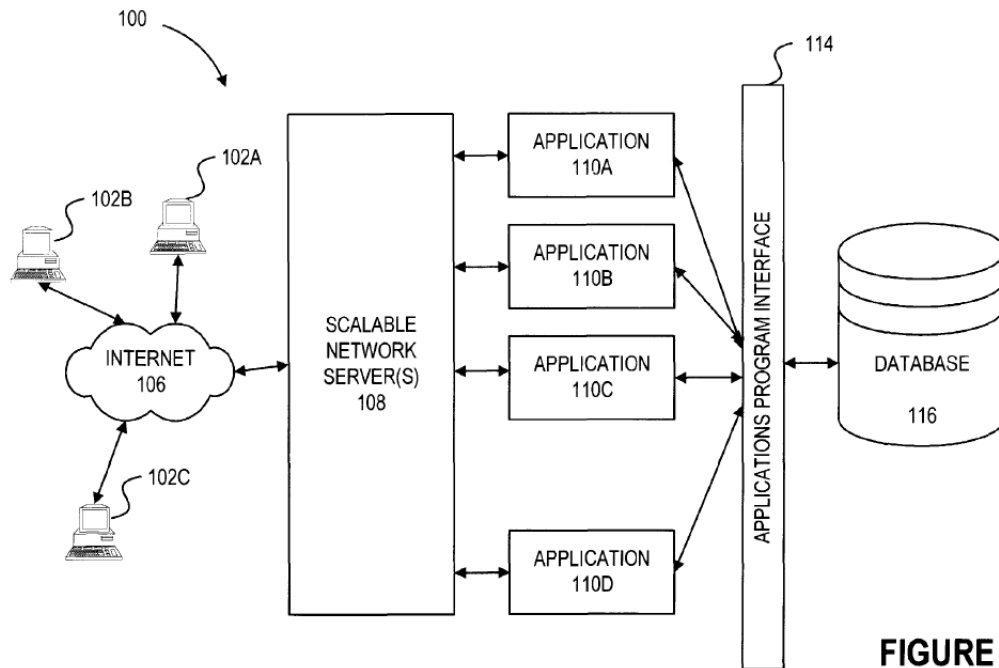


FIGURE 1

Figure 1 is a block diagram of computer system 100 for processing insurance applications that implements smart forms for workflow improvement.

Id. at 1:65–67, 2:26–28, Fig. 1.

As depicted in Figure 1, a “number of computers 102A–C are coupled through a wide area network 106, such as the Internet, to a scalable network server 108.” *Ex.* 1001, 2:33–35. Scalable network server 108 “routes data between computers 102A–C on one end and applications 110A–D on the other end.” *Id.* at 2:44–46. “Applications 110A–D access data in a database 116 through an applications programming interface (API) 114.” *Id.* at 2:47–48. Applications 110A–D perform a number of business functions, such as “payroll, accounting, benefits administration, and inter-office communications such as e-mail.” *Id.* at 2:49–53.

According to the '284 patent, applications 110A–D implement “workflows,” which include a number of actions to be taken by applications

110A–D in carrying out tasks that typically include interaction with users, such as employees. Ex. 1001, 2:61–3:2. Workflows include “smart form[s]” having a number of fields, “each of which corresponds to a particular piece of information which is used in carrying out the task of workflow.” *Id.* at 3:3–9. Fields include, as relevant to this Petition, “default annotation[s]” and “verification annotation[s].” *Id.* at 3:14–15. These annotations are “logic which can include references to data contained in records in database 116.” *Id.* at 3:35–36.

A default annotation includes logic that “specifies a default data value” for a field, and can include “references to data contained in database 116.” Ex. 1001, 3:37–41. For example, according to the ’284 patent, if a field corresponds to an employee’s name, the default annotation can specify that the employee’s name is retrieved from database 116. *Id.* at 3:41–44. A verification annotation includes logic that “processes data entered by an employee and indicates whether the entered data is valid,” and may include “references to data stored in database 116.” *Id.* at 3:57–60. For example, according to the ’284 patent, if a field represents a number of vacation days requested by an employee, the verification logic may include logic that compares the requested vacation to the number of days of vacation available to the employee. *Id.* at 3:60–64.

According to the ’284 patent, a default annotation typically is executed within application 110A, for example, because application 110A is close to database 116, at least relative to computers 102A–C, and therefore can quickly and efficiently resolve (i.e., replace) references to data in default annotation with actual data values retrieved from database 116. Ex. 1001, 4:1–6. For verification annotation, “application 110A resolves references to

data items stored in database 116 by substituting the substantive data values for such data items for such references within [the] verification annotation.” *Id.* at 4:14–17; *see id.* at 5:32–36 (application 110A resolves verification annotation “such that all references to data items of database 116 . . . are replaced with data values retrieved from database 116, such that subsequent access to database 116 by computer 102A is unnecessary”). As a result, a verification annotation, when received by computer 102A, for example, “includes no references to data items within database 116 but data constants where such references had been,” and “is then executed within [remote] computer 102A.” *Id.* at 4:17–23. By resolving the verification annotation in this manner, remote computer 102A itself can verify data entered by the user, without having to send the data or form containing the data back to host applications 110A–D for verification (and if data are determined invalid by host applications 110A–D, then back again to remote computer 102A for reentry, and so forth). *See id.* at 4:6–50. According to the ’284 patent, this “minimize[s] the risk of accepting invalid form data, thus reducing the system’s susceptibility to error,” and helps reduce traffic congestion on wide area network 106. *Id.* at 2:20–26, 4:12–13.

D. Illustrative Claim

The ’284 patent includes 21 claims, all of which are challenged. Claims 1, 8, and 15 are the independent claims. Claim 1 is illustrative and reproduced below.

1. A method for using a data-entry form to receive data entered by a user, the method comprising:
 - including one or more fields in the data-entry form;
 - for each of the one or more fields,

including verification logic which, when executed, determines whether form data entered by the user is valid for the field; and

sending the data-entry form with the verification logic through a computer network to a remote computer for entry of the data by the user such that the remote computer receives the data entered by the user and executes the verification logic.

Ex. 1001, 11:22–33.

E. Applied References

Petitioner relies upon the following references:

Xue, U.S. Patent No. 5,956,709 (Ex. 1002, “Xue”), filed July 28, 1997, issued September 21, 1999.

Blinn et al., U.S. Patent No. 5,897,622 (Ex. 1003, “Blinn”), filed October 16, 1996, issued April 27, 1999.

Wolff et al., U.S. Patent No. 5,774,887 (Ex. 1004, “Wolff”), filed November 18, 1992, issued June 30, 1998.

Gupta et al., U.S. Patent No. 6,199,079 B1 (Ex. 1005, “Gupta”), filed March 20, 1998, issued March 6, 2001.

Pet. 1–2.

F. Instituted Grounds of Unpatentability

We instituted *inter partes* review of claims 1–21 of the ’284 patent on the following grounds. Dec. 2–3, 8, 26.

Claims Challenged	35 U.S.C. §	Reference(s)
1, 8, 15	102 ²	Xue
1, 8, 15	103	Xue

² The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. §§ 102 and 103. Because the ’284 patent was filed before March 16, 2013, the effective date of the relevant amendments, the pre-AIA versions of § 102 and § 103 apply.

Claims Challenged	35 U.S.C. §	Reference(s)
1, 2, 8, 9, 15, 16	103	Xue, Blinn
3, 5, 6, 10, 12, 13, 17, 19, 20	103	Xue, Blinn, Gupta
4, 7, 11, 14, 18, 21	103	Xue, Blinn
4, 7, 11, 14, 18, 21	103	Xue, Blinn, Wolff

Petitioner relies upon the Declaration of Benjamin B. Bederson, Ph.D. (Ex. 1006).

II. ANALYSIS

A. *Applicable Law*

Petitioner challenges the patentability of claims 1–21 of the '284 patent on the grounds that the claims are anticipated under 35 U.S.C. § 102 or obvious under 35 U.S.C. § 103 in light of various references including: Xue, Blinn, Gupta, and Wolff. To prevail in its challenges to the patentability of the claims, Petitioner must establish unpatentability by a preponderance of the evidence. 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d). “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”)). This burden never shifts to Patent Owner. *See Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015) (citing *Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1326–27 (Fed. Cir. 2008)) (discussing the burden of proof in *inter partes* review).

To serve as an anticipatory reference under 35 U.S.C. § 102, “the reference must disclose each and every element of the claimed invention, whether it does so explicitly or inherently.” *In re Gleave*, 560 F.3d 1331, 1334 (Fed. Cir. 2009). “The identical invention must be shown in as complete detail *as is contained in the . . . claim.*” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989) (emphasis added). The elements must be arranged as required by the claim, “but this is not an ‘*ipsissimis verbis*’ test,” i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 832–33 (Fed. Cir. 1990) (citing *Akzo N.V. v. United States Int’l Trade Comm’n*, 808 F.2d 1471, 1479 & n.11 (Fed. Cir. 1986)).

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 non-obviousness, i.e., secondary considerations. *Graham v. John Deere Co.*, 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

³ Patent Owner did not present any evidence or arguments directed to secondary considerations during this proceeding.

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. *Id.* 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).

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 effective filing date of the '284 patent, “would have had a minimum of a bachelor’s degree in computer science or an equivalent field, and approximately two years of industrial or academic experience designing user interfaces or data entry forms.” Pet. 6–7 (citing Ex. 1006 ¶¶ 57–59). Patent Owner makes no contention concerning the artisan’s skill level. We regard Petitioner’s proposed definition as reasonable, and consistent with the prior art before us. *See In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (finding that the Board of Patent Appeals and Interferences did not err in concluding that the level of ordinary skill in the art was best determined by the references of record). Accordingly, as in our Institution Decision, we apply the level of skill set forth above, which also is consistent with Dr. Bederson’s testimony (Ex. 1006 ¶¶ 57–59), except that we delete the qualifier “a minimum of” to eliminate possible vagueness as to the amount of formal education. The qualifier expands the range substantially without an upper bound, and thus precludes a meaningful indication of the level of *ordinary* skill in the art.

C. Claim Construction

We apply the claim construction standard articulated in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). 37 C.F.R. § 42.100(b) (2019). Under *Phillips*, claim terms are afforded “their ordinary and customary meaning.” *Phillips*, 415 F.3d at 1312. “[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.” *Id.* at 1313. “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. Only terms that are in controversy need to be construed, and only to the extent necessary to resolve the controversy. *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999); *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (applying *Vivid Techs.* in the context of an *inter partes* review).

Petitioner submits that the claim limitations in the ’284 patent should be given their ordinary and customary meaning, but also proposes certain constructions in the alternative. Pet. 7–10. Patent Owner, having elected to not file a response after institution, has not disputed Petitioner’s proposed constructions. In determining that Petitioner has established by a preponderance of the evidence that claims 1–21 of the ’284 patent are unpatentable, we need not and do not construe expressly any claim terms.

*D. Anticipation of Independent Claims 1, 8, and 15
by Xue (Ex. 1002)*

Petitioner contends independent claims 1, 8, and 15 are unpatentable under 35 U.S.C. § 102 as anticipated by Xue (Ex. 1002). Pet. 18–36. For the reasons expressed below, we determine that Petitioner has demonstrated by a preponderance of evidence that claims 1, 8, and 15 are unpatentable as anticipated by Xue.

1. Overview of Xue (Ex. 1002)

Xue relates generally to a method of “assembl[ing] data into a data set, such as [an] item list in an Internet shopping cart, on [a] client side that is necessary for a transaction between two parties on the Internet server side and client side,” as shown, for example, in Figure 2, reproduced below.

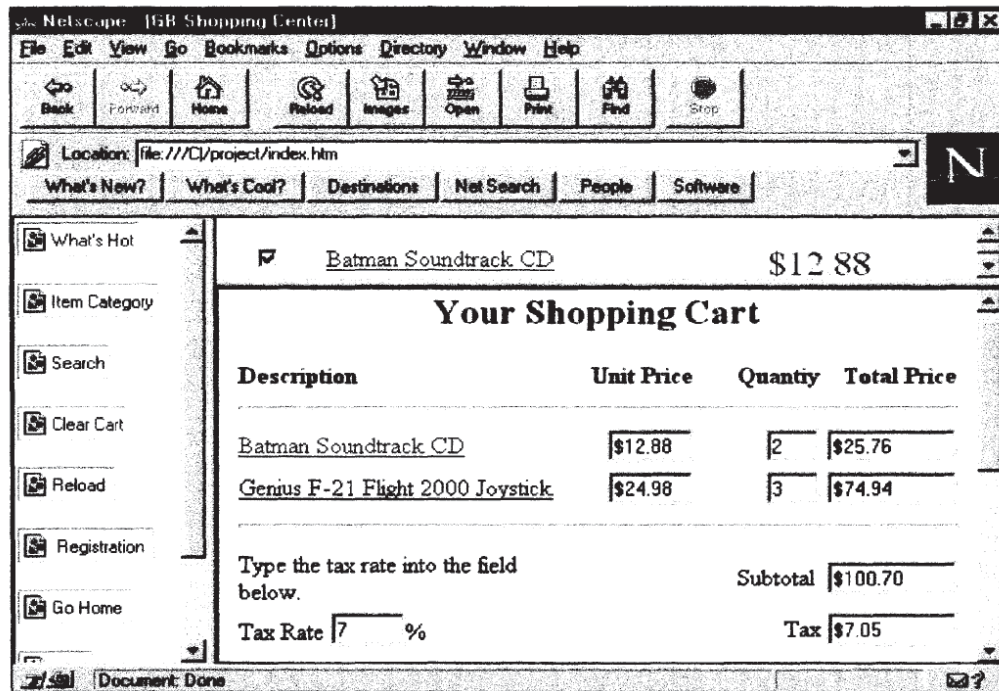


FIG. 2

Figure 2 depicts a client side shopping cart with selected items in the shopping cart.

Ex. 1002, Abstract, 3:22–25, Fig. 2; *see id.* at 1:11–13 (naming the method “Dynamic Data Assembling On Internet Client Side (DDAICS)”), 3:46–57 (defining “[t]ransaction,” “[s]erver party,” and “[c]lient party”). Xue discloses a client (e.g., user) receiving an “Internet Client Side Shopping Cart” as a web page with embedded script language, such as JavaScript, which is executed using a “client side application program.” Ex. 1002,

Abstract. This enables editing operations such as “adding, deleting, updating, entry check, calculation, and backup, [to be] executed on [the] client side.” *Id.* Xue further explains:

In FIG. 2 and FIG 3, two items have been selected and dropped into the shopping cart. The default quantity for items is one, but a shopper can change that at any time by focusing on the quantity cell [i.e., field] and typing in a new number in the shopping cart. The shopper can also type in the tax rate if applicable into the tax rate cell. The total prices, subtotal, tax, and grand total are calculated automatically by client side application program. After finishing shopping, shoppers can put user ID and password in the shopping cart and submit the order by clicking on the button “Send This Order”. If a shopper [has] not registered, by clicking on the “Registration” button on the Control Panel, a registration form will show up in the Display Window. After registration, the shopper can submit the order.

Id. at 7:20–34; *see id.* at Figs. 2–3.

In operation, “[a] top file and the web pages associated with each f[r]ame of the window are downloaded by a user with a browser, such as Netscape Navigator 3.0,” and the “client side application program of JavaScript is compiled by the buil[t]-in JavaScript compiler of the browser.” Ex. 1002, 8:37–55; *see id.* at 4:7–20. Xue discloses that logic in the top file “check[s] entries automatically” to determine whether data entered are valid for a given cell or field. *Id.* at 4:53–55, 16:47–52, 17:7–18:15. According to Xue, many “functions [can] be embedded in the top file in any order” (*id.* at 18:7–8), such as a “function to check if the input is a valid number” (*id.* at cols. 17–18 (*see* programming code)), and a function for “[c]hecking [a] user’s ID and password” (*id.* at cols. 19–20 (*see* programming code (“function isValidIDPasswd”))). Once data entry and checking are completed on the client, the client sends the completed shopping cart data

back to the server in one transmission. *Id.* at 1:47–63 (“only one transmission is enough”), 2:21–65, 3:52–58, 16:67–17:1.

Xue teaches that its method “eliminate[s] unnecessary transmissions of useful data by implementing all edit operations, such as adding, deleting, updating, entry check, calculation, and backup on [the] client side in a data assembling process,” and as such, “transmissions of useless data will be reduced to minimum if [the] data checking mechanism is well designed.” Ex. 1002, 2:48–54. Xue explains: “the Internet information traffic will be reduced significantly if this method is widely used, and Internet traffic will speed up as a result of reduction of Internet traffic,” the “load on servers will be reduced significantly,” and consequently, the “result is that the scarce Internet resources will be used more effectively and efficiently.” *Id.* at 2:54–60.

Petitioner contends Xue qualifies as prior art under 35 U.S.C. § 102(e) based on its filing date. Pet. 1. We have no evidence of an invention date other than the earliest possible effective filing date of the challenged claims. Thus, we determine that Xue qualifies as prior art under 35 U.S.C. § 102(e) because Xue’s filing date of July 28, 1997, is before the earliest possible effective filing date of the challenged claims, which is June 30, 1999. Ex. 1001, code (22); Ex. 1002, code (22).

We further discuss below the disclosure of Xue in connection with Petitioner’s arguments. As noted above, Patent Owner has presented no arguments undermining the arguments presented in the Petition.

2. *Analysis*

a) *Independent Claim 1*

Petitioner contends Xue discloses all of the limitations of independent claim 1. Pet. 18–36.

(1) “*A method for using a data-entry form to receive data entered by a user, the method comprising:*”

The preamble of claim 1 recites a “method for using a data-entry form to receive data entered by a user.” Ex. 1001, 11:22–34. Petitioner cites Xue’s disclosure of an Internet (online) shopping cart to receive data entered by a shopper via various cells, including cells for receiving item quantity, tax rate, username, and password. Pet. 18–24 (citing, *inter alia*, Ex. 1002, 7:20–34, Figs. 2, 3, 6, Abstract; Ex. 1006 ¶¶ 70–74). Petitioner does not take a position as to whether the preamble is limiting. *See id.* at 18. Because we find that Petitioner’s cited disclosure from Xue discloses a “method for using a data-entry form to receive data entered by a user,” we need not determine whether the preamble is limiting. *See Nidec*, 868 F.3d at 1017.

(2) “*including one or more fields in the data-entry form;*”

Xue discloses “cells” or “fields” in an Internet shopping cart implemented using HTML and JavaScript that enable a shopper (or user) to enter information. Ex. 1002, 7:20–34, Figs. 2, 3, 6, Abstract; *see, e.g., id.* at 8:55–67 (providing a JavaScript function that “focus[es] on the quantity *field* of that item in the cart” (emphasis added)), 18:17–67 (“Please enter a number into the *field*!” (emphasis added)), Fig. 2 (“Type the tax rate into the

field below.” (emphasis added)), Fig. 3 (providing user ID and password fields), 7:20–34 (“[A] shopper can change that at any time by focusing on the quantity *cell* and typing in a new number in the shopping cart.” (emphasis added)), 13:21–35 (“The new values in the text *cells* of the shopping cart can be written by the client side application program without causing the whole file of the web page for the shopping cart to be rewritten.” (emphasis added)). Based on this evidence, Petitioner contends, and we find, that such description discloses “including one or more fields in the data-entry form,” as recited in claim 1. Pet. 24–25 (citing Ex. 1006 ¶ 75).

(3) “for each of the one or more fields,
including verification logic which, when executed,
determines whether form data entered by the user
is valid for the field; and”

Xue discloses Internet shopping cart fields having logic to perform “entry check[s]” of entries made by the user before “final submission, save, or print.” Ex. 1002, Abstract, 2:37–47; *see, e.g., id.* at 2:48–59 (“[T]ransmissions of useless data will be reduced to minimum if data checking mechanism is well designed.”), 4:53–55 (describing manual entry of data and “checking entries automatically”), 16:47–59 (“If an illegal character is entered, an alert will be shown up on screen to remind users to change to the legal character sets.”). Xue also discloses implementing such logic for validating field entries using JavaScript. *Id.* at 17:13–18:15, cols. 17–24 (exemplary JavaScript code for field logic). Based on this evidence, Petitioner contends, and we find, that such description discloses “for each of the one or more fields, including verification logic which, when

executed, determines whether form data entered by the user is valid for the field,” as recited in claim 1. Pet. 25–29 (citing Ex. 1006 ¶¶ 76–81).

(4) “*sending the data-entry form with the verification logic through a computer network to a remote computer*”

Xue discloses a client (e.g., user) receiving an “Internet Client Side Shopping Cart” as a web page with embedded script language, such as JavaScript, which is executed using a “client side application program.” Ex. 1002, Abstract. This enables editing operations such as “adding, deleting, updating, entry check, calculation, and backup, [to be] executed on [the] client side.” *Id.* Xue also discloses “[a] top file and the web pages associated with each f[r]ame of the window are *downloaded by a user with a browser*, such as Netscape Navigator 3.0,” and the “client side application program of JavaScript is compiled by the buil[t]-in JavaScript compiler of the browser.” Ex. 1002, 8:37–55 (emphasis added); *see id.* at 4:7–20. Petitioner submits that “by downloading a form from the [I]nternet, a server sends the form over a computer network to a remote computer.” Pet. 30 (citing Ex. 1006 ¶¶ 82–83); *see also* Ex. 1002, 3:46–57 (defining “[t]ransaction,” “[s]erver party,” and “[c]lient party”). Based on this evidence, Petitioner contends, and we find, that such description discloses “sending the data-entry form with the verification logic through a computer network to a remote computer,” as recited in claim 1. Pet. 29–34 (citing Ex. 1006 ¶¶ 82–90).

(5) “for entry of the data by the user such that the remote computer receives the data entered by the user and executes the verification logic.”

Xue discloses, as discussed above, a shopper (user) entering data into an Internet shopping cart on a client side (remote) computer, which client side computer also performs “entry check[s]” of entries made by the user before “final submission, save, or print.” *See supra*; *see also, e.g.*, Ex. 1002, 2:32–45 (“Web pages used in the method are specifically designed in which client side application program, such as one written with JavaScript, is embedded” where “adding, deleting, updating, *entry check*, calculation, and backup, *are executed on client side* until final submission, save, or print.” (emphases added)), 4:7–16 (describing the client side application program as “a program written with a script language or other computer language which is embedded or called in one or more web pages, *executed on client side*, and used for controls of editing operations of client parties” (emphasis added)), 7:20–34, 3:46–57, 17:13–18:15, cols. 17–24, Figs. 2, 3, 6, Abstract. Based on this evidence, Petitioner contends, and we find, that such description discloses “for entry of the data by the user such that the remote computer receives the data entered by the user and executes the verification logic,” as recited in claim 1. Pet. 34–36 (citing Ex. 1006 ¶¶ 91–93).

Patent Owner, having elected to not file a response after institution, does not argue that any limitation in claim 1 is absent in Xue and, consequently, has waived any such argument. *See* Paper 9, 10 (“Patent Owner is cautioned that any arguments [for patentability] not raised in the response may be deemed waived.”); *NuVasive*, 842 F.3d at 1380–81

(holding that the patent owner waived arguments on an issue that were not raised in its response after institution).

We have considered the entirety of the record in light of Petitioner's contentions on this ground of unpatentability (Pet. 18–36), and we are persuaded by Petitioner's mapping of the foregoing limitations of claim 1 to the disclosure in Xue, and find that Xue discloses each limitation of claim 1, arranged as in claim 1. Accordingly, having reviewed the complete record before us, we conclude that Petitioner has proven by a preponderance of evidence that independent claim 1 is unpatentable as anticipated by Xue.

b) Independent Claims 8 and 15

Petitioner contends Xue discloses all of the limitations of independent claims 8 and 15. Pet. 45–48, 50–51.

The preamble of claim 8 recites “[a] computer readable medium useful in association with a computer which includes a processor and a memory, the computer readable medium including computer instructions which are configured to cause the computer to use a data-entry form to receive data entered by a user.” Ex. 1001, 11:62–66. Petitioner cites Xue's disclosure of Internet shopping carts involving data transmissions between client side computers and server side computers over the Internet. Pet. 45–48 (citing, *inter alia*, Ex. 1002, 1:21–63, 3:53–58, 8:36–39; Ex. 1006 ¶¶ 82–85). Petitioner does not take a position as to whether the preamble is limiting. *See id.* at 45. Because we find that Petitioner's cited disclosure from Xue discloses “[a] computer readable medium useful in association with a computer which includes a processor and a memory, the computer readable medium including computer instructions which are configured to cause the computer to use a data-entry form to receive data entered by a

user,” we need not determine whether the preamble is limiting. *See Nidec*, 868 F.3d at 1017.

Claim 15 recites, in part, “[a] computer system comprising: a processor; a memory operatively coupled to the processor; and a form building module (i) which executes in the processor from the memory and (ii) which, when executed by the processor, causes the computer to use a data-entry form to receive data entered by a user.” Ex. 1001, 12:48–54.

Petitioner’s expert, Dr. Bederson, testifies, *inter alia*:

[The skilled artisan] would have recognized that Xue’s processor, memory, and computer instructions would include a “form building module” that causes its server computer to “use a data-entry form to receive data entered by a user.” . . . Xue discloses that a client downloads an HTML top file and interacts with a server over the [I]nternet to complete an online transaction. . . . Xue also discloses that its server includes computer instructions to build a data-entry form. . . . [The skilled artisan] therefore would have recognized that Xue’s instructions for building a data-entry form discloses a “form building module” as required by claim 15. A form building module would simply be software instructions for building a data-entry form.

Ex. 1006 ¶¶ 114–116; *see* Pet. 50–51. Petitioner characterizes the above-quoted text of claim 15 as “the preamble,” and does not take a position as to whether it is limiting. *See id.* at 50. Patent Owner offers no evidence to rebut Dr. Bederson’s testimony cited above (Ex. 1006 ¶¶ 114–116), and we credit that testimony. Based on this testimony and the cited disclosures from Xue supporting this testimony (*see* Ex. 1006 ¶¶ 82–85, 114–116), we find that Xue discloses “[a] computer system comprising: a processor; a memory operatively coupled to the processor; and a form building module (i) which executes in the processor from the memory and (ii) which, when executed by

the processor, causes the computer to use a data-entry form to receive data entered by a user.”

We agree with Petitioner that independent claims 8 (“computer readable medium” claim) and 15 (“computer system” claim) otherwise recite limitations commensurate in scope with independent claim 1 (“method” claim). *See* Pet. 48, 51. We find that Xue discloses the limitations that overlap with claim 1 for the same reasons given above for claim 1. Accordingly, having reviewed the complete record before us, we conclude that Petitioner has proven by a preponderance of evidence that independent claims 8 and 15 are unpatentable as anticipated by Xue, for similar reasons as discussed above regarding independent claim 1.

E. Obviousness of Claims 1, 8, and 15 over Xue (Ex. 1002)

Petitioner alternatively contends independent claims 1, 8, and 15 are unpatentable under 35 U.S.C. § 103 as obvious over Xue (Ex. 1002). Pet. 18–36. For similar reasons as discussed above regarding anticipation by Xue of claims 1, 8, and 15, we conclude that Petitioner has proven by a preponderance of evidence that independent claims 1, 8, and 15 are unpatentable as obvious over Xue.⁴ *See Cohesive Techs., Inc. v. Waters Corp.*, 543 F.3d 1351, 1364 (Fed. Cir. 2008) (“[I]t is commonly understood that prior art references that anticipate a claim will usually render that claim obvious.”).

⁴ Patent Owner did not present any evidence or arguments directed to secondary considerations during this proceeding.

F. Obviousness of Claims 1, 2, 8, 9, 15, and 16 Over the Combination of Xue (Ex. 1002) and Blinn (Ex. 1003)

1. Independent Claims 1, 8, and 15

Petitioner also alternatively contends independent claims 1, 8, and 15 are unpatentable under 35 U.S.C. § 103 as obvious over the combination of Xue (Ex. 1002) and Blinn (Ex. 1003). Pet. 18–36.

Blinn relates generally to “a shopping and merchandising system for online networks, such as the World Wide Web portion of the Internet,” as shown, for example, in Figures 1 and 2, reproduced below. Ex. 1003, 1:6–9, Abstract, Figs. 1, 2.

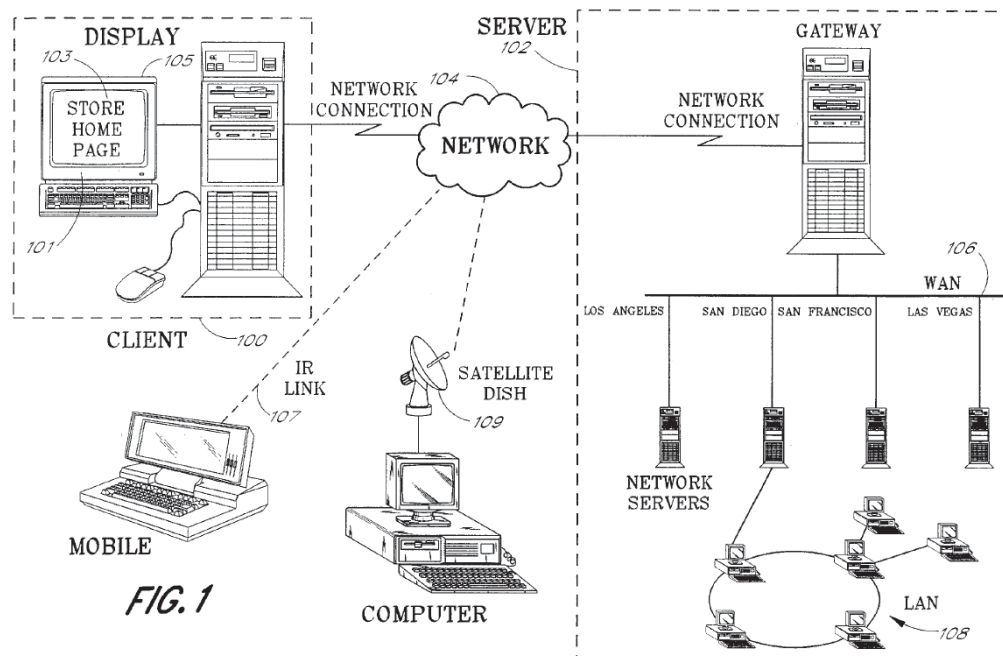


Figure 1 depicts an online network for implementing a shopping and merchandising system, including client 100, server 102, and network 104.

Ex. 1003, 4:29–30, 5:32–48, Fig. 1.

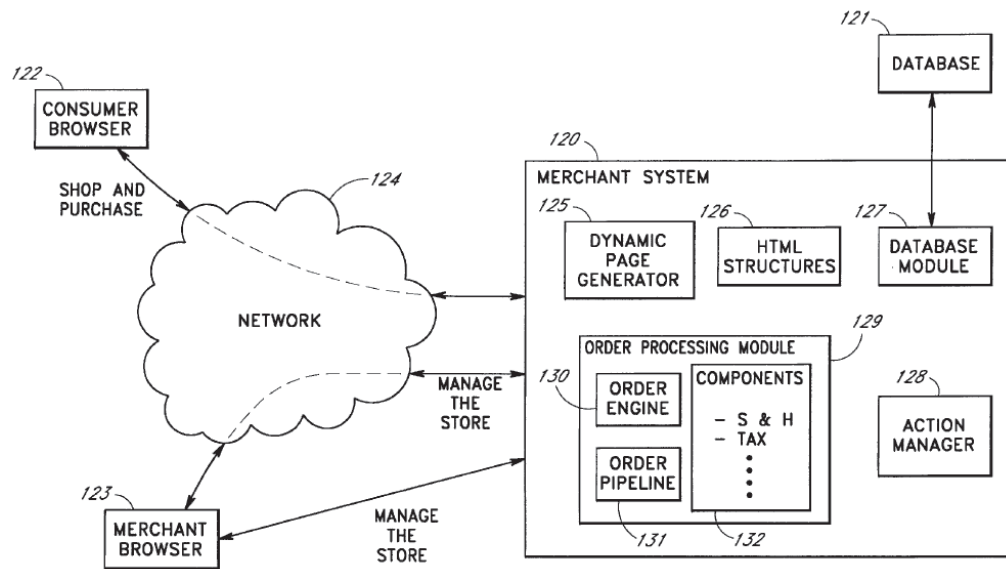


FIG. 2

Figure 2 depicts an overview of an online merchant system. Ex. 1003, 4:31–32, 6:26–46, Fig. 2. Blinn discloses that merchant system 120 communicates with database 121, consumer browser 122, merchant browser 123, and network 124. *Id.* at 6:26–28. “[D]atabase 121 may include query data, product information, *order information*, *shopper information*, store information, receipts and customer feedback data.” *Id.* at 6:33–36 (emphases added). In operation, “[a] shopper uses a consumer browser 122, such as Microsoft Explorer or Netscape Navigator, communicating with a network 124, such as the World Wide Web portion of the Internet, to access a merchant’s online store using the merchant system 120.” *Id.* at 6:36–40.

Petitioner contends Blinn qualifies as prior art under, *inter alia*, 35 U.S.C. § 102(e) based on its filing date. Pet. 1. We have no evidence of an invention date other than the earliest possible effective filing date of the challenged claims. Thus, we determine that Blinn qualifies as prior art

under 35 U.S.C. § 102(e) because Blinn’s filing date of October 16, 1996, is before the earliest possible effective filing date of the challenged claims, which is June 30, 1999. Ex. 1001, code (22); Ex. 1003, code (22).

Petitioner introduces Blinn in connection with the claim limitation of “sending the data-entry form with the verification logic *through a computer network to a remote computer.*” Pet. 29 (emphasis added). Petitioner argues Blinn teaches, *inter alia*, “[d]uring a shopping session, the consumer browser 122 sends requests embedded in URL addresses to the merchant system 120,’ and the merchant system 120 responds by sending an HTML web page back to the client over the [I]nternet,” where such web pages include “an [I]nternet shopping cart or ‘shopping basket.’” Pet. 32 (citing Ex. 1003, 8:1–16, 10:5–17). Petitioner submits “Blinn therefore discloses sending an HTML web page from a server to a client over the [I]nternet” for execution by the client side or remote computer. Pet. 33 (citing Ex. 1006 ¶¶ 87–89). Petitioner argues, for example, it would have been obvious to the skilled artisan “to combine the sending feature of Blinn with the [I]nternet shopping cart of Xue because it would have been nothing more than combining known methods of transmitting information over the [I]nternet to yield a predictable result: having Xue’s shopping cart—which Xue expressly discloses as being downloaded—sent from a server over a computer network as disclosed by Blinn.” Pet. 33–34 (citing Ex. 1006 ¶ 90). Patent Owner offers no evidence to rebut Dr. Bederson’s testimony cited above (Ex. 1006 ¶¶ 87–90), and we credit that testimony. Based on this evidence, we find that combining Blinn’s sending feature with Xue’s shopping cart would have been a predictable combination of known methods, and that a skilled artisan would have had a reasonable expectation of success in doing so.

Having reviewed the complete record before us, we are persuaded that the combination of Xue and Blinn teaches the subject matter of independent claims 1, 8, and 15, and that the skilled artisan would have had a rational reason to combine Xue and Blinn. Accordingly, for similar reasons as discussed above regarding anticipation by and obviousness over Xue of claims 1, 8, and 15, we conclude that Petitioner has proven by a preponderance of evidence that independent claims 1, 8, and 15 are unpatentable as obvious over the combination of Xue and Blinn.

2. Dependent Claims 2, 9, and 16

Petitioner contends dependent claims 2, 9, and 16 also are unpatentable under 35 U.S.C. § 103 as obvious over the combination of Xue (Ex. 1002) and Blinn (Ex. 1003). Pet. 36–45, 48–49, 52.

Dependent claim 2 (and similarly claims 9 and 16) require verification logic as recited in independent claim 1 to include “one or more references to data items stored in a database” and “resolving the references to replace the references in the verification logic with data values of the data items retrieved from the database.” Ex. 1001, 11:34–39, 12:10–17, 12:65–13:5.

Petitioner introduces Blinn here for teaching, *inter alia*, (1) logic including references to data items stored in a database (*see* Pet. 36–43 (arguing, in part, “Blinn discloses one or more ‘references’ to data items stored in a database by disclosing ‘directives’ that include ‘value references for evaluation during page generation’” (citing, e.g., Ex. 1003, 8:17–52; Ex. 1006 ¶¶ 94–102))); and (2) resolving such references in the logic with data values of the data items retrieved from the database (*see* Pet. 44–46 (arguing, in part, “Blinn discloses retrieving data values from a database and

replacing value references in an HTML file with database values” (citing, e.g., Ex. 1003, 8:17–52, 8:63–9:1; Ex. 1006 ¶¶ 103–105))). Petitioner argues, and we find, that the skilled artisan “would have been motivated to add Blinn’s database lookup functions to the HTML top file of Xue in order to ensure that the data being checked by Xue’s data [verification] checks is the most up-to-date information on the merchant (server) side of the transaction.” Pet. 42; *see id.* at 36–45; Ex. 1006 ¶¶ 100–101. Petitioner also argues, and we find, that it would have been obvious to combine “Blinn’s database directives and value references with Xue’s shopping cart methods when generating Xue’s top file,” because “[d]oing so would have provided the client with up-to-date information from an online merchant to complete a transaction without multiple requests to the server, thus fulfilling a primary goal of Xue.” Pet. 41–42 (citing, e.g., Ex. 1003, 1:37–63, 2:48–59; Ex. 1006 ¶¶ 100–101). Patent Owner offers no evidence to rebut Dr. Bederson’s testimony cited above (Ex. 1006 ¶¶ 94–105), and we credit that testimony.

We have reviewed Petitioner’s contentions with respect to these dependent claims (*see* Pet. 36–45, 48–49, 52) in light of the complete record before us, and are persuaded that the combination of Xue and Blinn teaches the subject matter of these claims, and that the skilled artisan would have had a rational reason to combine Xue and Blinn. Accordingly, for the same reasons provided above for independent claims 1, 8, and 15, as well as the foregoing arguments and evidence submitted by Petitioner concerning dependent claims 2, 9, and 16, which we adopt as our own, we conclude that Petitioner has proven by a preponderance of evidence that the combined teachings of Xue and Blinn render dependent claims 2, 9, and 16 unpatentable as obvious.

G. Obviousness of Claims 3, 5, 6, 10, 12, 13, 17, 19, and 20 Over the Combination of Xue (Ex. 1002), Blinn (Ex. 1003), and Gupta (Ex. 1005)

Petitioner contends dependent claims 3, 5, 6, 10, 12, 13, 17, 19, and 20 are unpatentable under 35 U.S.C. § 103 as obvious over the combination of Xue (Ex. 1002), Blinn (Ex. 1003), and Gupta (Ex. 1005). Pet. 52–63. Patent Owner, having elected to not file a response after institution, makes no arguments unique to this ground and thus has waived any such challenge. *See* Paper 9, 10. We have considered the entirety of the record in light of Petitioner’s contentions on this ground of unpatentability (Pet. 52–63), and we are persuaded by Petitioner’s contentions. In particular, we find Petitioner persuasively explains how the combination of Xue, Blinn, and Gupta teaches the additional limitations in dependent claims 3, 5, 6, 10, 12, 13, 17, 19, and 20, as discussed below. We first turn briefly to Gupta.

Gupta generally relates to “[a] method of automatically filling in on-line forms presented by web pages in an internet transactional environment.” Ex. 1005, Abstract; *see* Ex. 1006 ¶ 68. Gupta’s system uses a “virtual check-out counter” that permits an online shopper to make purchases from multiple online vendors simultaneously by interacting with only one interface. Ex. 1005, 7:32–63; *see id.* at 2:66–3:20, 9:31–42. A shopper can submit a form through the interface, which will cause the system to fill in separate forms for each online vendor with data stored in a database. *Id.* at 6:19–55, 7:32–8:53, Figs. 3C–3D. Gupta’s system recognizes fields of the forms, then uses “relationships” between data objects to match the form fields with user data retrieved from a “User Meta-database.” *Id.* at 6:19–55.

The system may complete the transaction automatically for the user after it has filled the vendor's form with the user's data. *Id.* at 8:3–12.

Petitioner contends Gupta qualifies as prior art under 35 U.S.C. § 102(e) based on its filing date. Pet. 2. We have no evidence of an invention date other than the earliest possible effective filing date of the challenged claims. Thus, we determine that Gupta qualifies as prior art under 35 U.S.C. § 102(e) because Gupta's filing date of March 20, 1998, is before the earliest possible effective filing date of the challenged claims, which is June 30, 1999. Ex. 1001, code (22); Ex. 1005, code (22).

1. Claims 3, 10, and 17

Claim 3 depends from claim 2 (and ultimately from independent claim 1), and further recites “identifying the user; and wherein the data items retrieved from the database are associated with the user within the database.” Ex. 1001, 11:40–44. Similarly, claims 10 and 17, which mirror the limitations in claim 3, depend from claims 9 and 16, respectively (and ultimately from independent claims 8 and 15, respectively). *Id.* at 12:17–22, 13:6–11.

Petitioner's expert, Dr. Bederson, testifies that Xue discloses “identifying the user by disclosing an internet shopping cart in which a user can enter a user ID and password,” and that this would be used to identify a user. Ex. 1006 ¶ 123 (citing Ex. 1002, 7:28–31 (“user ID and password in [a] shopping cart”), 16:47–52, 19:9–25 (disclosing exemplary code for “[c]hecking user's ID and password”), Fig. 3). Similarly, Dr. Bederson testifies that Blinn and Gupta also each disclose user identification. *See* Ex. 1006 ¶¶ 124–125 (citations omitted). Based on this evidence, we

find that Xue, Blinn, and Gupta teach “identifying the user,” as recited in claim 3.

Dr. Bederson also testifies that (1) Gupta discloses “[a] method of automatically filling in on-line forms presented by web pages in an internet transactional environment” (quoting Ex. 1005, Abstract); (2) “[u]sing Gupta’s system, an online shopper may make purchases from multiple online vendors simultaneously by using a single interface” (citing Ex. 1005, 2:66–3:20, 7:32–63, 9:31–42); (3) Gupta’s system “retrieves data stored in a ‘User Meta-database 170’ and ‘User Selection database 180’ to fill in forms for each online vendor with which the user wishes to make a purchase” (citing Ex. 1005, 6:19–55, 7:34–8:53, Figs. 3C–3D); (4) the skilled artisan would have understood that “Gupta’s User Meta-database 170 and User Selection database 180 are databases that store data items associated with a user because Gupta fills the online forms with user-specific data from the databases” (citing Ex. 1005, 2:66–3:9, 2:15–30); and (5) “Gupta [therefore] discloses retrieving data from a database that is associated with a user.” Ex. 1006 ¶ 126. Dr. Bederson further testifies that the skilled artisan “would have been motivated to combine Gupta’s user-specific data with the HTML pages and data checking features of Xue and Blinn to provide user-specific data to a client along with an internet shopping cart.” *Id.* ¶ 127.

Dr. Bederson explains that “providing Gupta’s user-specific information would have enabled the data checks of Xue to utilize user-specific data to check against the user’s input,” and that “[t]his would have furthered Xue’s desire to limit transmissions between the client and server before a completed shopping cart is submitted to complete a transaction because the user-entered data could be verified on the client without having to engage in

another transmission.” *Id.* Patent Owner offers no evidence to rebut Dr. Bederson’s testimony in this regard, and we credit that testimony. Based on this evidence, we find that Gupta teaches “wherein the data items retrieved from the database are associated with the user within the database,” as recited in claim 3, and that a skilled artisan would have combined Gupta’s teachings with those of Xue and Blinn to limit transmissions between the client and server.

Having reviewed the complete record before us, we are persuaded that the combination of Xue, Blinn, and Gupta teaches the subject matter of dependent claims 3, 10, and 17, and that the skilled artisan would have had a rational reason to combine Xue, Blinn, and Gupta. Accordingly, for the same reasons provided above for claims 1 and 2, as well as the foregoing arguments and evidence submitted by Petitioner concerning dependent claims 3, 10, and 17 (*see* Pet. 52–55, 61–62), which we adopt as our own, we conclude that Petitioner has proven by a preponderance of evidence that the combined teachings of Xue, Blinn, and Gupta render dependent claims 3, 10, and 17 unpatentable as obvious.

2. *Claims 5, 12, and 19*

Claim 5 depends from independent claim 1, and further recites “for each of the one or more fields, determining default data values for the field according to data items retrieved from a database.” Ex. 1001, 11:49–52. Similarly, claims 12 and 19, which mirror the limitations in claim 5, depend from independent claims 8 and 15, respectively. *Id.* at 12:29–34, 13:19–14:3.

Petitioner's expert, Dr. Bederson, testifies that "Gupta discloses retrieving data items associated with a user from a database," and "determining default data values for fields of a form according to data items retrieved from a database," for reasons discussed above regarding dependent claim 3. Ex. 1006 ¶ 129; *see id.* ¶ 128. In particular, Dr. Bederson testifies that "Gupta uses 'properties' in its User Meta-Database 170 to automatically fill-in online forms," where, for example, "a property may include 'a name of a user'" and "[t]ransformation function 88 converts a property into a value for filling in a field in a form." Ex. 1006 ¶ 129 (citations omitted).

Dr. Bederson also testifies:

[The skilled artisan] would have understood that Gupta's properties disclose "determining default data values" of a form field according to data items in a database as required by claim 5 because Gupta's properties are drawn from its database and are used to automatically fill in form fields. Moreover, the examples provided in Gupta are consistent with the '284 patent's disclosure of this claim feature. Gupta's example of automatically filling in a user's name is consistent with the '284 patent's disclosure that a "default annotation" of a form field may be used to fill in an employee's name.

Ex. 1006 ¶ 130 (citations omitted). In addition, Dr. Bederson testifies that Xue and Blinn also each disclose this feature of claim 5. Ex. 1006 ¶¶ 131–132 (citations omitted).

Dr. Bederson further testifies that "[a] skilled artisan would have combined Xue, Blinn, and Gupta to provide default values in an HTML form field provided to a user because each discloses providing such data." Ex. 1006 ¶ 133. More specifically, Dr. Bederson testifies that, among other reasons, the skilled artisan "would have been motivated to combine Gupta with Xue and Blinn in order to further their combined goal of reducing data

entry errors in an online form,” because “Gupta’s autofill features would have improved this goal in the Xue and Blinn system by automating some data entries and thus reducing errors by human input.” Ex. 1006 ¶ 133.

Dr. Bederson explains that “[t]his ultimately would have reduced unnecessary data transmission between a client and server due to user entry errors.” Ex. 1006 ¶ 133. Patent Owner offers no evidence to rebut Dr. Bederson’s testimony in this regard, and we credit that testimony.

Having reviewed the complete record before us, we are persuaded that the combination of Xue, Blinn, and Gupta teaches the subject matter of dependent claims 5, 12, and 19, and that the skilled artisan would have had a rational reason to combine Xue, Blinn, and Gupta. Accordingly, for the same reasons provided above for independent claim 1, as well as the foregoing arguments and evidence submitted by Petitioner concerning dependent claims 5, 12, and 19 (*see* Pet. 55–60, 62–63), which we adopt as our own, we conclude that Petitioner has proven by a preponderance of evidence that the combined teachings of Xue, Blinn, and Gupta render dependent claims 5, 12, and 19 unpatentable as obvious.

3. Claims 6, 13, and 20

Claim 6 depends from claim 5 (and ultimately from independent claim 1), and further recites “identifying the user; and wherein the data items retrieved from the database are associated with the user within the database,” which additional limitations are identical to those of dependent claim 3, discussed above. Ex. 1001, 11:53–56. Similarly, claims 13 and 20, which mirror the limitations in claim 6 (and claim 3), depend from claims 12 and

19, respectively (and ultimately from independent claims 8 and 15, respectively). *Id.* at 12:35–40, 14:5–11.

Petitioner argues the combination of Xue and Gupta (and Xue, Blinn, and Gupta) render dependent claims 6, 13, and 20 unpatentable as obvious for the same reasons discussed above regarding dependent claim 3. *See* Pet. 60–63 (citing Ex. 1006 ¶¶ 127, 133–135).

Having reviewed the complete record before us, we are persuaded that the combination of Xue and Gupta (and Xue, Blinn, and Gupta) teaches the subject matter of dependent claims 6, 13, and 20, and that the skilled artisan would have had a rational reason to combine Xue and Gupta (and Xue, Blinn, and Gupta), for the same reasons explained above regarding claims 1, 2, 3, and 5. Accordingly, we conclude that Petitioner has proven by a preponderance of evidence that the combined teachings of Xue and Gupta (and Xue, Blinn, and Gupta) render dependent claims 6, 13, and 20 unpatentable as obvious.

H. Obviousness of Claims 4, 7, 11, 14, 18, and 21 Over the Combination of Xue (Ex. 1002) and Blinn (Ex. 1003), and Alternatively, Over the Combination of Xue, Blinn, and Wolff (Ex. 1004)

Petitioner contends that dependent claims 4, 7, 11, 14, 18, and 21 are unpatentable under 35 U.S.C. § 103 as obvious over the combination of Xue (Ex. 1002) and Blinn (Ex. 1003), and alternatively, over the combination of Xue, Blinn, and Wolff (Ex. 1004). Pet. 63–69. Patent Owner, having elected to not file a response after institution, makes no arguments unique to this ground and thus has waived any such challenge. *See* Paper 9, 10. We have considered the entirety of the record in light of Petitioner’s

contentions in this ground of unpatentability (Pet. 63–69), and we are persuaded by Petitioner’s contentions. In particular, we find Petitioner persuasively explains how the combination of Xue and Blinn teaches the additional limitations in dependent claims 4, 7, 11, 14, 18, and 21, as discussed below. As such, we need not and do not address whether Petitioner’s alternative combination of Xue, Blinn, and Wolff likewise renders these claims obvious. *See* Ex. 1006 ¶¶ 146, 150–151 (Petitioner’s expert explaining how this combination renders the subject claims obvious); *SAS Inst. Inc. v. Iancu*, 138 S. Ct. 1348, 1359 (2018) (holding a petitioner “is entitled to a final written decision addressing all of the claims it has challenged”); *Boston Sci. Scimed, Inc. v. Cook Grp. Inc.*, Nos. 2019-1594, -1604, -1605, 2020 WL 2071962, at *4 (Fed. Cir. Apr. 30, 2020) (non-precedential) (recognizing that the “Board need not address issues that are not necessary to the resolution of the proceeding” and, thus, agreeing that the Board has “discretion to decline to decide additional instituted grounds once the petitioner has prevailed on all its challenged claims”).

Claim 4 depends from claim 2 (and ultimately from independent claim 1), and further recites “receiving data entered by the user in completing the data-entry form; and storing the data entered by the user in the database.” Ex. 1001, 11:45–48. Similarly, claims 11 and 18, which mirror the limitations in claim 4, depend from claims 9 and 16, respectively (and ultimately from independent claims 8 and 15, respectively). *Id.* at 12:23–28, 14:12–17. Claim 7 depends from claim 5 (and ultimately from independent claim 1), and further recites “receiving data entered by the user in completing the data-entry form; and storing the data entered by the user in

the database,” which additional limitations are identical to those of dependent claim 4, discussed above. Ex. 1001, 11:58–61. Similarly, claims 14 and 21, which mirror the limitations in claim 7 (and claim 4), depend from claims 12 and 19, respectively (and ultimately from independent claims 8 and 15, respectively). *Id.* at 12:42–47, 14:12–19. Thus, each of dependent claims 4, 7, 11, 14, 18, and 21 introduces the same subject matter to the underlying claimed invention, namely, receiving data entered by a user and storing the data in a database.

Petitioner’s expert, Dr. Bederson, testifies that “Xue discloses receiving data entered by the user in completing a data-entry form by disclosing an internet shopping cart with fields or cells that can receive user-entered data, such as the quantity of an item to be purchased, the applicable tax rate, and the user’s ID and password.” Ex. 1006 ¶ 146 (citing Ex. 1002, 7:21–34). Dr. Bederson also testifies that Xue discloses “saving the user’s entries into a database.” Ex. 1006 ¶ 147 (citing Ex. 1002, 17:1–5 (“After receiving the submitted data set, CGI program can make some necessary checks. If everything seems to be right, *the data set can then be saved in a file or a database.*”) (emphasis added), 11:20–48 (server-side CGI program “retrieve[s] the data in the form of the shopping cart, and write[s] the data to the file or database on the server side”)); *see* Ex. 1006 ¶ 148 (“[T]he term ‘database’ may be used to broadly refer to a single database or multiple database servers or computers distributed over a network. . . . To the extent it is argued that claims 2 and 4 require a single ‘database,’ it is my opinion that Xue discloses this feature.”). Dr. Bederson further testifies that, to the extent multiple databases or storage devices are necessary, “Blinn expressly discusses a database that is made up of several storage devices distributed

across a network.” Ex. 1006 ¶ 149 (citing Ex. 1003, 6:26–46). Based on this evidence, we find that Xue and Blinn teach receiving data entered by a user and storing the data in a database. Patent Owner offers no evidence to rebut Dr. Bederson’s testimony in this regard, and we credit that testimony.

Having reviewed the complete record before us, we are persuaded that the combination of Xue and Blinn teaches the subject matter of dependent claims 4, 7, 11, 14, 18, and 21, and that the skilled artisan would have had a rational reason to combine Xue and Blinn. Accordingly, for the same reasons provided above for claims 1 and 2, as well as the foregoing arguments and evidence submitted by Petitioner concerning dependent claims 4, 7, 11, 14, 18, and 21 (*see* Pet. 63–69), which we adopt as our own, we conclude that Petitioner has proven by a preponderance of evidence that the combined teachings of Xue and Blinn render dependent claims 4, 7, 11, 14, 18, and 21 unpatentable as obvious.

III. CONCLUSION⁵

Claims	35 U.S.C. §	Reference(s)/ Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
1, 8, 15	102	Xue	1, 8, 15	

⁵ Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this Decision, we draw Patent Owner’s attention to the April 2019 *Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding*. *See* 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. *See* 37 C.F.R. §§ 42.8(a)(3), (b)(2).

Claims	35 U.S.C. §	Reference(s)/ Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
1, 8, 15	103	Xue	1, 8, 15	
1, 2, 8, 9, 15, 16	103	Xue, Blinn	1, 2, 8, 9, 15, 16	
3, 5, 6, 10, 12, 13, 17, 19, 20	103	Xue, Blinn, Gupta	3, 5, 6, 10, 12, 13, 17, 19, 20	
4, 7, 11, 14, 18, 21	103	Xue, Blinn	4, 7, 11, 14, 18, 21	
4, 7, 11, 14, 18, 21	103 ⁶	Xue, Blinn, Wolff		
Overall Outcome			1–21	

IV. ORDER

Upon consideration of the record, it is:

ORDERED that claims 1–21 of U.S. Patent No. 6,415,284 B1 are unpatentable; and

⁶ As explained above, because we find Petitioner persuasively explains how the combination of Xue and Blinn teaches the additional limitations in dependent claims 4, 7, 11, 14, 18, and 21, we need not and do not address whether Petitioner’s alternative combination of Xue, Blinn, and Wolff likewise renders these claims obvious. *See SAS Inst.*, 138 S. Ct. at 1359; *Boston Sci.*, 2020 WL 2071962, at *4.

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.

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Patent 6,415,284 B1

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