Trials@uspto.gov
571-272-7822

Paper No. 37
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

EBAY, INC.,
Petitioner,

v.

PAID, INC.,
Patent Owner.

Case CBM2014-00125
Patent 8,352,357

Before JAMES P. CALVE, THOMAS L. GIANNETTI, and KRISTINA M. KALAN, *Administrative Patent Judges.*

GIANNETTI, *Administrative Patent Judge.*

FINAL WRITTEN DECISION
35 U.S.C. § 328(a) and 37 C.F.R. § 42.73

I. INTRODUCTION

A. Background

eBay, Inc. ("Petitioner" or "eBay") filed an Amended Petition (Paper 4; "Pet.") seeking institution of a covered business method patent review of claims 1–24 (all claims) of U.S. Patent No. 8,352,357 (Ex. 1001; "the '357 patent") pursuant to 35 U.S.C. § 321. Paid, Inc. ("Patent Owner") filed a Preliminary Response. Paper 12 ("Prelim. Resp."). Based on these submissions, we instituted trial as to claims 1–24 of the '357 patent. Paper 15 ("Institution Decision").

After institution, Patent Owner filed a Response (Paper 22, "PO Resp.") and Petitioner filed a Reply (Paper 25, "Pet. Reply"). In addition, the parties rely upon fact and expert testimony. Petitioner proffered the Declaration of Philip Greenspun, Ph.D. (Ex. 1003, "Greenspun Decl.") with the Petition. Patent Owner proffered the Declaration of Alfred Weaver, Ph.D. (Ex. 2003, "Weaver Decl.") with its Response. In addition, a transcript of Dr. Weaver's deposition (Ex. 1018, "Weaver Dep.") was submitted by Petitioner. Petitioner relies also on a declaration of co-inventor Richard Rotman (Exhibit 2004, "Rotman Decl.") and a supplemental declaration of Mr. Rotman (Ex. 2086, "Rotman Suppl. Decl."). The Rotman supplemental declaration includes Exhibits 2035–85, which are the subject of a motion to exclude. *See infra.*

This case is related to three other proceedings before the Board, involving related patents. These proceedings and the patents involved are CBM2014-00126 (U.S. Patent No. 8,521,642), CBM2014-00127 (U.S. Patent No. 7,930,237), and CBM2014-00128 (U.S. Patent No. 8,635,150). Pet. 6. The cases were consolidated for argument but are decided separately.

Oral Hearing for all four cases was held on June 9, 2015. A transcript of the argument is entered in the record as Paper 36 ("Hearing Tr.").

We have jurisdiction under 35 U.S.C. § 6(c). This Final Written Decision is entered pursuant to 35 U.S.C. § 328(a).

For the reasons that follow, we conclude that Petitioner has demonstrated by a preponderance of the evidence that claims 1–24 of the '357 patent are unpatentable because they are directed to patent-ineligible subject matter under 35 U.S.C. § 101. We further conclude that Petitioner has demonstrated by a preponderance of the evidence that claims 1–24 are unpatentable under 35 U.S.C. § 103(a).

B. Related Matters

Petitioner states that it was sued for infringement of the'357 patent in *PAID, Inc. v. eBay Inc.*, No. 4:13-cv-40151-TSH (D. Mass.). Pet. 6 (citing Ex. 1004). The complaint in that action included U.S. Patent Nos. 7,930,237 ("the '237 patent") and 8,521,642 ("the '642 patent"), and was amended to include U.S. Patent No. 8,635,150 ("the '150 patent"). Exs. 1004, 1005.

In addition, as noted above, the Board has instituted covered business method patent reviews of the '642 patent (CBM2014-00126), the '237 patent (CBM2014-00127), and the '150 patent (CBM2014-00128). Final Written Decisions in those proceedings are being issued with this decision.

C. The '357 Patent (Ex. 1001)

The '357 patent relates to improvements in on-line auctions.[1] The patent discloses that conventional online auctions do not offer the buyer complete information about the real cost of the auction. Ex. 1001, col. 4, ll. 13–15. This is because they do not specify exact shipping cost information. *Id*. at col. 4, ll. 15–16. According to the '357 patent, the improved auction method and system include a shipping calculator. The shipping calculator can prompt a potential buyer to enter information necessary to determine shipping cost. *Id*. at col. 4, ll. 16–22. That information may include entry of the ZIP code of the buyer on a screen display. When the buyer enters ZIP code information in the ZIP code field, the buyer may initiate the shipping calculator by clicking a display button. *Id*. at col. 4, ll. 22–29. The operation of the calculator is illustrated in Figure 14 from the patent reproduced below:

[1] The patent states that the term "auction" includes situations where a seller offers goods online via a bidding process as well as reverse auctions and direct online product offerings. Ex. 1001, col. 1, l. 66–col. 2, l. 4.

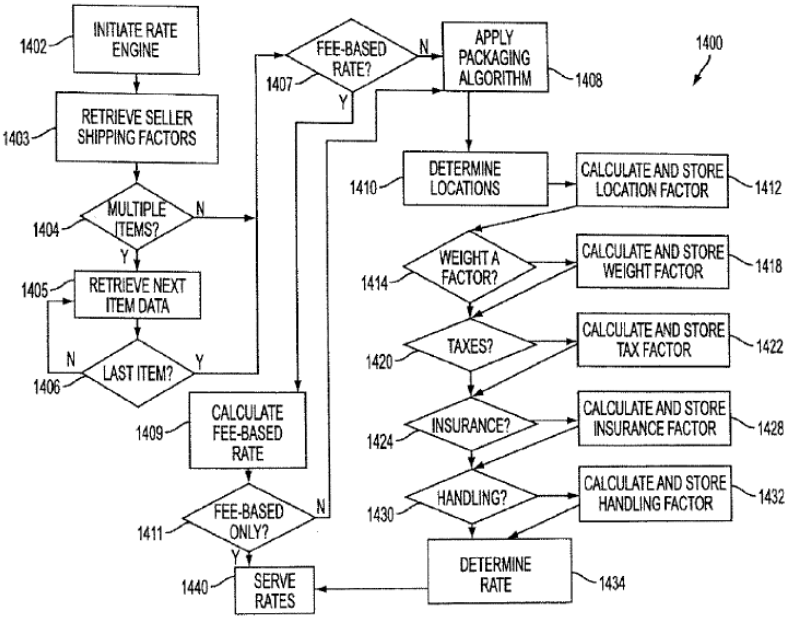


FIG. 14

Figure 14 is a flow chart of a process for generating shipping rates.

In the flowchart reproduced above, at step 1402, the system initiates a rate engine in response to a buyer input, such as clicking on the calculator button appearing on the computer screen. *See* Ex. 1001, Fig. 5. Next, at step 1403, the system retrieves the seller shipping preferences from a data storage facility. If multiple items are purchased, the system recognizes this at step 1404. *Id.* at col. 10, l. 62–col. 11, l. 8.

At step 1407, the system queries the seller's preferences to determine whether the shipping rate is a fee-based rate. If so, the fee-based rate is calculated at step 1409. If not, at step 1408, an algorithm is applied to determine the packaging for the items to be shipped. *Id*. at col. 11, ll. 23–44.

At step 1410, the system determines the location of the seller and the buyer based on data entered in interaction with the servers of the system. At step 1412, the system calculates and stores a rate factor based on the location of the buyer and seller. *Id*. at ll. 45–49.

At step 1414, the system queries whether weight is a factor in the calculation, and if so, the system at step 1418 calculates and stores a weight factor for the item. At step 1420, the system queries whether taxes apply and at step 1422, calculates and stores a tax factor. *Id.* at ll. 50–55.

At step 1424, the system queries whether insurance charges apply, and if so calculates and stores an insurance factor at step 1428. At step 1430, the system queries whether there is a handling charge by the seller and, at step 1432, the system calculates and stores a handling factor. Once all of these factors are determined, the system calculates a rate at step 1434. *Id*. at ll. 55–61.

D. Illustrative Claim

Claim 1 is an independent method claim. Claims 2–12 depend, directly or indirectly, from claim 1. Claim 13 is an independent system claim. Claims 14–24 depend, directly or indirectly, from claim 13.

Claim 1 is illustrative (some paragraphing added):

> 1. A method comprising:
> receiving, at a server computer, first data from a remote seller computer over a network, wherein the first data comprises:
> location information for the remote seller; and
> one or more shipping preferences of the remote seller, wherein the shipping preferences comprise any one of, or some combination of:
> (i) a flat fee, (ii) a fee set by the seller, (iii) one or more rates charged by one or more common carriers, (iv) a distance between the seller location and the buyer location, (v) size of the item, (vi) weight of the item, (vii) free shipping, and (viii) one or more dimensions of the item;
> storing the first data in a database;

receiving, at the server computer, second data from a remote buyer computer over a network, wherein the second data corresponds to location information for the remote buyer;

storing the second data in a database;

receiving, at the server computer, third data from the remote seller computer over a network, wherein the third data corresponds to a price of an item that is offered for sale on an online auction website;

storing the third data in a database;

determining, for the remote buyer, a shipping rate for the item, wherein the step of determining the shipping rate comprises:

retrieving, from the database, the first data corresponding to the one or more shipping preferences of the remote seller;

retrieving, from the database, the second data corresponding to the location information for the remote buyer;

determining an applicable tax factor for the item that is offered for sale on the online auction website based, at least in part, on the location information for the remote buyer, by:

identifying, from the second data corresponding to location information of the remote buyer, a state associated with the buyer; and

determining a tax rate corresponding to the state associated with the remote buyer for the purchase of the item;

calculating the shipping rate of the item based at least in part on the one or more shipping preferences of the remote seller; and

providing to the remote buyer computer over the network the shipping rate of the item that is offered for sale on the online auction website.

E. The Asserted Grounds

The following prior art is relied on by Petitioner:

1. PCT Pub. WO 01/55931 A1, published August 2, 2001 (Ex. 1011, "Van Zandt").

2. Publication entitled "Sales Tax Issues in Illinois," dated October 2001 (Ex. 1010, "Illinois Sales Tax").

3. PCT Pub. No. WO 00/70515, published November 23, 2000 (Ex. 1012, "Hosey").

4. Screenshots of the PriceGrabber.com Web site, www.pricegrabber.com, obtained through the Internet Archive Web site, also known as the Wayback Machine (Ex. 1013, "PriceGrabber.com").

Trial was instituted on the following grounds:

1. Whether claims 1–24 are directed to patent ineligible subject matter under 35 U.S.C. § 101;

2. Whether claims 2, 5, 14, and 17 are unpatentable over Van Zandt and Illinois Sales Tax under 35 U.S.C. § 103(a);

3. Whether claims 1–8, 10–20, and 22–24 are unpatentable over Hosey and PriceGrabber.com under 35 U.S.C. § 103(a).

III. ANALYSIS

A. Claim Construction

The Board interprets claims using the broadest reasonable construction. *See* Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,766 (Aug. 14, 2012); 37 C.F.R. § 42.300(b). There is a "heavy presumption" that a claim term carries its ordinary and customary meaning. *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002).

In instituting trial, we interpreted three claim terms. Institution Decision 8–10. Patent Owner argues that Petitioner's "proposed claims constructions . . . attempt to read distinctly claimed elements out of the claims" and should be rejected. PO Resp. 9–10. These arguments are not

persuasive for the reasons set forth in the Institution Decision and we, therefore, adopt the interpretations provided there. In addition, based upon the submissions of the parties and their respective positions regarding Van Zandt, discussed *infra*, we determine that it is necessary to construe an additional term appearing in the claims.

"shipping rate for/of the item"

Patent Owner asserts that the term "shipping rate" is "the real shipping costs for their items" or "the *exact cost* of shipping an item." PO Resp. 32–33. Patent Owner contrasts this with the total cost to the buyer, which includes, for example, item price, shipping, handling, and taxes. *Id.* at 33. Patent Owner, relying on Figure 13 of the patent and the testimony of its expert, Dr. Weaver, further defines shipping rate as "what it costs to move a package from place to place," in contrast with "shipping cost" or "total cost," which would encompass other preferences of the buyer or seller. Hearing Tr. 80:22–81:24; Weaver Dep. 67:14–22, 107:19–109:5.

Petitioner asserts that the term "shipping rate" refers to more than transportation cost, and may also include tax, insurance, and handling. Pet. Reply 6–7; Hearing Tr. 9:15–25. Petitioner also asserts that Patent Owner's expert, in his deposition, acknowledged that his definition was inconsistent with the patent. Pet. Reply 6; Weaver Dep. 88:7–91:19.

We are not persuaded that Patent Owner's proposed construction is correct. Under the broadest reasonable interpretation standard, the "claims should always be read in light of the specification and teachings in the underlying patent." *Microsoft Corp. v. Proxyconn, Inc.*, 789 F.3d 1292, 1297–98 (Fed. Cir. 2015) (citation and internal quotation marks omitted). Instead, we interpret the term "shipping rate" to mean "the overall or total

cost of sending an auction item to a buyer." This interpretation is consistent with the patent specification's disclosure of shipping calculator system 1000 and its rate engine 1024 for calculating shipping rates based on various inputs, as illustrated in Figure 10, reproduced below. Ex. 1001, col. 6, ll. 38–42.

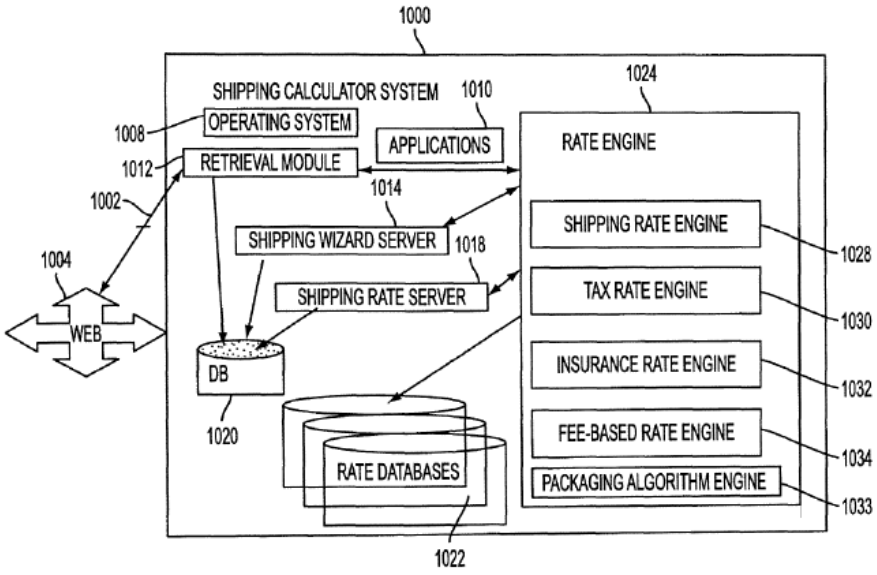


FIG. 10

Figure 10 shows a computer-based system with a shipping calculator.

The '357 patent discloses that rate engine 1024 may include modules for calculating factors that contribute to the overall shipping rate to include shipping rate engine 1028, tax rate engine 1030, insurance rate engine 1032, packaging algorithm engine 1033, and fee-based rate engine 1034. *Id.* at col. 7, ll. 45–50. Shipping rate engine 1028 calculates a basic shipping rate for an item based on the distance between seller and buyer locations, the weight of the item, the weight of any packaging, and method of shipment. *Id.* at col. 8, ll. 34–42. Tax rate engine 1030 determines what taxes may apply. *Id.* at col. 8, ll. 43–44. Insurance rate engine 1032 calculates a cost of insurance to be added to the overall shipping rate based on buyer and

seller preferences. *Id.* at col. 8, ll. 51–55. Packaging is an important factor in shipping cost, so packaging algorithm engine 1033 determines appropriate packaging based on seller preferences and the size, weight, or shape of the item and applies a factor to the shipping rate. *Id.* at col. 8, ll. 6–14. Fee-based engine 1034 calculates rates based on seller inputs such as rates charged for shipping and handling above the rates from common carriers and may include a flat rate for shipping, or a flat rate per item shipped. *Id.* at col. 8, ll. 15–29.

Rate engine 1024 integrates inputs from the calculations of these other modules and engines, and applies whatever discounts or other factors are required if the components are not simply added, "to obtain a *shipping rate* based on the various inputs." *Id.* at col. 8, ll. 56–60 (emphasis added). The '357 patent also discloses that the shipping rate may be a flat rate from fee-based engine 1034, a rate calculated from the other engines, or a rate from a combination of different types of calculations. *Id.* at col. 8, ll. 60–63. Thus, the patent discloses that rate engine 1000 calculates a "shipping rate" that includes not only a basic transportation cost but also many other costs that contribute to the total cost to send an item to a buyer.

Figure 14, which is reproduced above, also illustrates this process of determining shipping rates using system 1000. Figure 14 is described in the patent as "a flow diagram showing a server process for generating *shipping rates* for an online auction." *Id.* at col. 2, ll. 51–52 (emphasis added).

The '357 patent discloses that system 1000 determines the locations of seller 102 and buyer 104 and calculates and stores a rate factor based on the locations. *Id.* at col. 11, ll. 45–49. System 1000 also determines if weight, taxes, insurance charges, or handling charges apply and, if so, calculates and

stores factors for those charges. *Id.* at col. 11, ll. 49–61. Once all factors are determined, system 1000 calculates a "rate" at step 1434 by a simple addition, or by combining factors according to any algorithm used to determine the "cost of shipping." *Id.* at col. 11, ll. 62–65. Shipping may be "free" if the buyer is within a given distance of the seller, if the order is over $100, or if the order is within a given time frame, and system 1000 can apply this to the overall rate. *Id.* at col. 11, l 65–col.12, l. 2. Finally, system 1000 serves a rate to the buyer via rate calculator 500. *Id.* at col. 12, ll. 3–4.

Thus, the '357 patent discloses a system and process that calculate a shipping rate based on a variety of factors that include transportation costs, packaging, weight, taxes, insurance, packaging, and seller rate preferences. *Id.* at col. 8, ll. 56–60. The basic shipping rate calculated by shipping rate engine 1028 is only one part of the shipping rate that is calculated and provided to buyers. *Id.* at col. 11, l. 62–col. 12, l.2. After an auction ends, system 1000 determines the winner and makes appropriate calculation of "the cost of shipping, based on the winning bid, the locations of the seller 102 . . . and buyer 104 . . . ,the weight of the items, packaging factors, taxes, and the like." *Id.* at col. 9, ll. 37–45, Fig. 11; *see* Rotman Decl. ¶ 47; Ex. 2017, 4–5.

Interpreting "shipping rate" to mean the total cost of shipping an item including packaging, tax, insurance, and handling also is consistent with the problem to which the '357 patent states it is directed: providing online buyers advance information about the real shipping cost for the items that they purchased at auction. *Id.* at col. 1, ll. 47–50. Interpreting this term to include only a transportation cost to ship an item(s) and exclude other factors such as packaging, tax, and insurance that contribute to the total

shipping rate that is presented to the buyer would undermine the problem to be solved and would not provide an accurate estimate of the total cost to ship an item(s).

Patent Owner's interpretation also is inconsistent with the language of claim 1, which recites that determining a shipping rate for an item includes retrieving the seller's "shipping preferences," retrieving the buyer's location information, determining an applicable "tax factor" for the item, identifying a state associated with the buyer, determining a tax rate corresponding to that state, and calculating the shipping rate based at least in part on "the one or more shipping preferences of the remote seller." Claim 13 contains similar language describing calculation of a shipping rate. Read in light of the specification, the claims support Petitioner's position that "shipping rate" refers to more than just transportation cost, but instead reflects other costs to the buyer, including packaging, taxes, and insurance.

We are not persuaded by Patent Owner's argument based on Figure 13. This analysis ignores the disclosures of Figures 10 and 14 showing shipping rate to include taxes and other costs. Figure 13 is related to system 1000, depicted in Figure 10. Ex. 1001, col. 10, ll. 28–30. Patent Owner points to nothing in the specification limiting the shipping rate calculation to just transportation costs and excluding the other costs that system 1000 calculates and includes in the shipping rate that is presented to a buyer. In the absence of such a limitation, we are not restricted to that particular embodiment in giving the claims their broadest reasonable interpretation. *Broadcom Corp. v. Emulex Corp.*, 732 F.3d 1325, 1333 (Fed. Cir. 2013) ("[A]n interpretation which 'excludes a [disclosed] embodiment from the scope of the claim is rarely, if ever, correct.'").

Read in light of the specification, the claims support Petitioner's position that "shipping rate" refers to more than just transportation cost but instead reflects other costs to the buyer including packaging, taxes, and insurance. Thus, we interpret the term "shipping rate" to mean "the overall or total cost of sending an auction item to a buyer."

B. Patentability of Claims 1–24 under 35 U.S.C. § 101

1. Overview

Section 101 of the Patent Statute (35 U.S.C. § 101) defines the subject matter eligible for patenting. Recently, in *Versata Dev. Grp. v. SAP Am., Inc.*, 793 F.3d 1306, 1330 (Fed. Cir. 2015), the Federal Circuit confirmed that the Board is permitted to consider challenges to patentability under § 101 in covered business method patent reviews.

2. Patentability under 35 U.S.C. § 101

Section 101 of the Patent Statute defines the subject matter eligible for patenting: "Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title." 35 U.S.C. § 101.

The Supreme Court, however, has "long held that this provision contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable." *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014) (quoting *Assoc. for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2116 (2013) (internal quotation marks and brackets omitted)). "The 'abstract ideas' category embodies the longstanding rule that '[a]n idea of itself is not patentable.'"

Alice Corp., 134 S. Ct. at 2355 (quoting *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972) (quotations omitted)).

In *Alice Corp.*, the Supreme Court emphasized the importance of the so-called "*Mayo* framework," which provides "a framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts." *Id.* (citing *Mayo Collaborative Svcs. v. Prometheus Labs, Inc.*, 132 S. Ct. 1289, 1296–97 (2012)). Under the *Mayo* framework, "[w]e must first determine whether the claims at issue are directed to a patent-ineligible concept." *Id*. Next, "we consider the elements of each claim both individually and 'as an ordered combination' to determine whether the additional elements 'transform the nature of the claim' into a patent-eligible application." *Id*. (citing *Mayo*, 132 S. Ct. at 1297).

Under *Mayo*, to be patentable, a claim must do more than simply state the law of nature or abstract idea and add the words "apply it." *Mayo*, 132 S. Ct. at 1294; *Benson*, 409 U.S. at 67. Furthermore, "the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention." *Alice Corp.*, 134 S. Ct. at 2358. "Thus, if a patent's recitation of a computer amounts to a mere instruction to 'implemen[t]' an abstract idea 'on . . . a computer,' that addition cannot impart patent eligibility." *Id*. (internal citation omitted).

Thus, we first analyze the claims of the '357 patent to determine whether the claims embody an abstract idea. If they do, then we proceed to determine whether the claims are meaningfully limited to a patent-eligible application of an abstract idea, or cover nothing more than the abstract idea itself.

3. Claims 1–24 are Directed to an Abstract Idea

Petitioner contends that the abstract idea claimed in the '357 patent is "determining shipping and tax rates for an online auction item." Pet. 18. In our Institution Decision, we observed that this description is consistent with the '357 patent specification, which explains "a need exists for the parties to online auctions to have access to better information in advance about the real shipping costs for their items." Ex. 1001, col .1, ll. 47–50; Institution Decision 17.

Patent Owner responds that the '357 patent claims "'embody, use, reflect, rest upon, or apply' the abstract idea of determining shipping rates." PO Resp. 22. Patent Owner denies, however, that the claims are "directed to the idea itself." *Id.* (emphasis omitted). Instead, Patent Owner contends:

> [the claims] are directed to a specific application of the idea, one that takes place in a specific context (an online auction) between specific entities (a remote seller and a remote buyer) for a specific purpose (to rapidly and accurately calculate shipping rates based on a variety of ever-changing inputs) using a specific series of steps involving both computer and human action (including inputting data, receiving and storing data, making calculations, and transmitting information [to] online auction buyers over a computer network).

Id. (emphases omitted).

We are not persuaded by Patent Owner's argument that the '357 patent does not claim an abstract idea simply because it is directed to online auctions. PO Resp. 22; Hearing Tr. 56:10–12. As the Federal Circuit recently reminded us, "[a]n abstract idea does not become nonabstract by limiting the invention to a particular field of use or technological environment such as the Internet." *Intellectual Ventures I LLC v. Capital One Bank (US)*, 792 F.3d 1363, 1366 (Fed. Cir. 2015) (citations omitted).

We are, therefore, not convinced by Patent Owner's argument that the claims are not abstract because they are limited to a specific application.

Patent Owner further contends that, unlike the claims in *Bilski*[2] and *Alice*, the '357 patent's claims "ha[ve] never before been achieved." PO Resp. 22–23. As evidence of this, Patent Owner points to the fact that Petitioner's prior art challenge relies on obviousness and not anticipation. *Id.* at 23, n.2 ("eBay has not been able to find or assert against the claims a single anticipatory reference."). This argument is unavailing. As the Supreme Court observed in *Diamond v. Diehr*, 450 U.S. 175, 190 (1981), "[t]he question therefore of whether a particular invention is novel is 'wholly apart from whether the invention falls into a category of statutory subject matter."

Despite Patent Owner's arguments to the contrary, we see little difference between determining shipping rates and tax rates for auctioned items and the type of fundamental economic practices considered to be abstract ideas in *Alice Corp*. and *Bilski*.[3] As established by the record, both conventional auctions and shipping rate calculations existed long before the

[2] *Bilski v. Kappos*, 561 U.S. 593 (2010).

[3] In *Alice Corp.*, the Supreme Court determined that the claims at issue were "drawn to the concept of intermediated settlement," i.e., the use of a third party to mitigate settlement risk. *Id.* at 2356. Furthermore, the Supreme Court determined that "[l]ike the risk hedging in *Bilski*, the concept of intermediated settlement is 'a fundamental economic practice long prevalent in our system of commerce.'" *Id.* (citations omitted). With respect to the first step of the "*Mayo* framework," the Supreme Court concluded in *Alice Corp.* that "there is no meaningful distinction between the concept of risk hedging in *Bilski* and the concept of intermediated settlement" in *Alice Corp.*, and that "[b]oth are squarely within the realm of 'abstract ideas' as we have used that term." *Alice Corp.*, 134 S. Ct. at 2357.

Internet. *See, e.g.*, Rotman Decl. ¶¶ 4–8; Greenspun Decl. ¶¶ 31–37; Hearing Tr. 56:17–21. We conclude, therefore, that Petitioner has demonstrated that the '357 patent claims, like the claims in *Bilski* and *Alice*, are directed to an abstract idea, namely, determining shipping rates for an online auction item.

4. Claims 1–24 are Not Meaningfully Limited

The second step of the Supreme Court's "*Mayo* framework" requires that we consider the elements of the claim and determine whether there is an "element or combination of elements that is 'sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.'" *Alice Corp.*, 134 S. Ct. at 2355 (quoting *Mayo*, 132 S. Ct. at 1294).

A challenged patent claim, properly construed, must incorporate enough meaningful limitations to ensure that it claims more than just an abstract idea and not just a mere "'drafting effort designed to monopolize the [abstract idea].'" *Alice Corp.*, 134 S. Ct. at 2357 (quoting *Mayo*, 132 S. Ct. at 1297). "Simply appending conventional steps, specified at a high level of generality," is not "*enough*" for patent eligibility. *Id.* (quoting *Mayo*, 132 S. Ct. at 1297, 1300).

Step two of the "*Mayo* framework" analysis, therefore, may be described as a search for an "inventive concept"—i.e., an element or combination of elements that is sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the ineligible concept itself. *Id.* (citing *Mayo*, 132 S. Ct. at 1294).

At the final hearing, Patent Owner acknowledged that the holdings in *Bilski* and *Alice* could not be avoided simply by showing that a computer

was involved in the patented invention. Hearing Tr. 62:12–17; 68:6–7 ("Without it being on the Internet, the claims might not be patentable."). Instead, Patent Owner focused its argument on the speed necessary for processing the high volume of transactions in Internet auctions:

> [THE BOARD]: What is unique to the Internet about an auction?
>
> [PATENT OWNER'S COUNSEL]: Your Honor, the auction had previously been done not on the Internet. It had been done manually, just like the Rotmans did, through mail order, maybe in person live. Once it got moved to the Internet, once it had been implemented on the Internet, it greatly increased the scope, the connectability and frankly the number of transactions that could be processed. It rendered traditional calculations impossible. They could no longer be done.

Hearing Tr. 56:17–57:2. Patent Owner contends that when auctions moved to the Internet, a "new problem" was created due to the need to calculate shipping costs "in realtime." Hearing Tr. 67:23–68:2. But that which Patent Owner identifies as a "new problem" was already recognized in conventional auctions, and could have in fact been handled by doing the same calculations manually, albeit at a slower speed, before "automating" the auction process. Ex. 1019 ("Rotman Dep.") 127:19–128:5.

We are not persuaded by Patent Owner's argument for patentability under § 101. First, the claims of the '357 patent do not reflect the asserted "inventive concept" identified by Patent Owner, namely, the ability to calculate shipping rates and tax rates in real time. Patent Owner asserts that the reference in the claims to an "online auction" accomplishes this. Hearing Tr. 62:18–20. But as Petitioner points out, the claims do not recite any form of real-time calculations. The claims simply recite steps that were

routinely done manually before the filing date of the patent. Hearing Tr. 7:16–22; Rotman Dep. 127:19–128:5.

More fundamentally, however, simply adding a computer limitation to claims covering an abstract concept, without more, is insufficient to render the claim patentable under § 101, even if the use of a computer enables faster operation. *Bancorp Services, L.L.C. v. Sun Life Assur. Co. of Canada*, 687 F.3d 1266, 1278 (Fed. Cir. 2012).

> In order for the addition of a machine to impose a meaningful limit on the scope of a claim, it must play a significant part in permitting the claimed method to be performed, rather than function solely as an obvious mechanism for permitting a solution to be achieved more quickly, i.e., through the utilization of a computer for performing calculations.

SiRF Tech., Inc. v. Int'l Trade Comm'n, 601 F.3d 1319, 1333 (Fed. Cir. 2010). Likewise, "the use of the Internet is not sufficient to save otherwise abstract claims from ineligibility under § 101." *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 716 (Fed. Cir. 2014). For these reasons, Patent Owner's argument based on meeting the asserted need for speed and other requirements of online auctions fails.

We are not convinced by the other arguments presented by Patent Owner. For example, Patent Owner's policy-based arguments invoking the Patent Act and Supreme Court case law (PO Resp. 10–21) ignore the Supreme Court's holdings in *Bilski* and *Alice* and the Federal Circuit's recent decisions in cases such as *Ultramercial* and *Intellectual Ventures*.

Likewise, Patent Owner's alternative argument that the claims are meaningfully limited because they recite steps such as receiving and storing information is unavailing. PO Resp. 24–25; Hearing Tr. 66:4–18. We are not convinced that reciting these standard computer operations impose

meaningful limitations on the abstract idea. As the Supreme Court held in *Gottschalk v. Benson*, 409 U.S. 63 (1972), claims do not become patent-eligible under § 101 simply for reciting a known, general purpose computer. *See id*. at 67 (invalidating as patent-ineligible claimed processes that "can be carried out in existing computers long in use, no new machinery being necessary," or "can also be performed without a computer."). And in *Alice Corp.*, the Supreme Court rejected a similar argument, determining that "the claims at issue amount to 'nothing significantly more' than an instruction to apply the abstract idea of intermediated settlement using some unspecified, generic computer." *Alice Corp.*, 134 S. Ct. at 2360 (quoting *Mayo*, 132 S. Ct. at 1298). More recent, and to the same effect, is *Ultramercial*, 772 F.3d at 716: "Adding routine additional steps . . . does not transform an otherwise abstract idea into patent-eligible subject matter."

Nor are we persuaded by Patent Owner's cited authorities that the requirements of § 101 are met here. For example, Patent Owner's reliance on the outcome in *Diamond v. Diehr*, 450 U.S. 175 (1981), is misplaced. PO Resp. 18–21. As recently explained by the Federal Circuit in *Versata*, 793 F.3d at 1332–33, *Diehr* involved use of a well-known mathematical equation to solve a technological problem (curing rubber) in conventional industry practice. Here, in contrast, the problem purportedly addressed by the '357 patent, the requirement for faster shipping cost calculations in Internet auctions, is a business need, not a technological problem.

Likewise, the Federal Circuit's decision in *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014), is not apposite. Hearing Tr. 66:19–32. As explained by the Federal Circuit in *Versata , DDR Holdings* "drew a distinction between the patent-eligible claims at issue and

patent-ineligible claims in the past that had merely recited commonplace business methods aimed at processing business information, applying known business processes to particular technological environments." *Versata*, 793 F.3d at 1333.

In relying on *DDR Holdings*, Patent Owner asserts that moving conventional auctions (which Patent Owner acknowledges is "something that had been done previously") to the Internet created "an Internet-centric solution." Hearing Tr. 72:10–13. This argument fails, for it ignores the distinction made in *DDR Holdings* between technical solutions and claims reciting "commonplace business methods," such as auctions. Unlike the claims in *DDR Holdings*, there is nothing in Patent Owner's claims that makes them "Internet-centric." As discussed *supra*, the mere reference in the claims to online auctions does not suffice. The claims "are not rooted in computer technology to solve a problem specifically arising in some aspect of computer technology." *Versata,* 793 F.3d at 1334.

Finally, we address Patent Owner's argument that the patents should stand under § 101 because there is no preemption. PO Resp. 15; Hearing Tr. 64:14–17. We are not convinced that this argument has merit. As the Federal Circuit recently explained in *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015), "questions on preemption are inherent in and resolved by the § 101 analysis." Thus, "[w]hile preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility." *Id.* Accordingly, the issue of preemption is "resolved" by our analysis and resolution of the § 101 issues, and Patent Owner's separate argument based on the asserted absence of preemption is unavailing.

In summary, Petitioner has demonstrated by a preponderance of the evidence that the claims of the ’357 patent are not patentable because they are directed to ineligible subject matter under 35 U.S.C. § 101.

C. Asserted Grounds of Unpatentability under 35 U.S.C. § 103

1. Overview

Under 35 U.S.C. § 103(a), an invention is not patentable if the differences between the claimed subject matter 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) where in evidence, so-called secondary considerations, including commercial success, long-felt but unsolved needs, failure of others, and unexpected results. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

2. Asserted Obviousness of Claims 2, 5, 14, and 17 over Van Zandt and Illinois Sales Tax

a. Van Zandt (Ex. 1011)

Van Zandt discloses a comprehensive logistics support service that manages a global shipment from door-to-door for any number of vendors and can provide buyers of products with a guaranteed, upfront landed cost quote that includes all shipping-related costs, international duties and taxes for the shipment. Ex. 1011, 1. Van Zandt discloses this service for merchant-type business format 40 and also for auction-type format 50 where

a web site sponsor acts as an exchange for matching participating sellers 54 with interested buyers 42. *Id.* at 14[4]; Fig. 1.

The system disclosed in Van Zandt includes the following three components: (1) landed cost shipment quote generation engine 62; (2) shipment booking engine 64; and (3) shipment tracking engine 66. *Id.* Quoting engine 62 provides a landed cost shipment quote based on item information provided by sellers 54 for items they are selling, buyer information, seller information, shipment costs, shipping mode, additional shipping services, and pickup and delivery locations. *Id.* at 15–16; Fig. 2A. Quoting engine 62 also determines insurance costs, duties, and taxes for the shipment based on shipment origin and destination information, Harmonized Tariff System (HTS) code, product size, weight, and value. *Id.* at 16–21; Figs. 2F, 2G, 3. Quoting engine 62 sends the final quote to host server 30, which uses the shipment quote to determine a total price (*i.e.*, product price + shipping price) to display to buyer 42. *Id.* at 34:23–35:10.

b. Illinois Sales Tax (Ex. 1010)

Illinois Sales Tax provides "basic facts and information that surround sales tax issues in Illinois." Ex. 1010, 1. Specifically, Illinois Sales Tax provides a Flow Chart for Sales Taxes to "provide some organizational review of Illinois sales taxes and the distribution of funds." *Id*. at 19. The Flow Chart indicates that after an item is purchased, a seller must determine if it is subject to sales taxation, and if so, if it was purchased in Illinois, from a vendor with a nexus in Illinois, or from a vendor without a physical presence within Illinois. *Id*. Illinois Sales Tax also provides a table of State

[4] For the purposes of this Decision, we refer to the original page numbers of the relevant documents rather than Petitioner's inserted page numbers.

Sales Tax Rates indicating that certain states have a sales tax rate of zero. *Id*. at 22.

c. Analysis

Petitioner argues that claims 2, 5, 14, and 17 would have been obvious over the combination of Van Zandt and Illinois Sales Tax. Pet. 57–60. In support of this contention, Petitioner provides detailed claim charts and expert testimony presented through the Greenspun Declaration. Ex. 1003. Specifically, Petitioner asserts that "given the complexity of calculating taxes for a particular transaction," one of ordinary skill in the art "would have been motivated to employ the flow chart of Illinois Sales Tax in the tax calculations as taught by Van Zandt to further improve the accuracy of the tax estimates." Pet. 58–59.

Patent Owner challenges this analysis, arguing that the proposed combination of Van Zandt and Illinois Sales Tax is "based on a faulty assumption." PO Resp. 30. Patent Owner claims that the only reason Dr. Greenspun gives for combining Van Zandt with another reference such as Illinois Sales Tax is to facilitate international shipping. *Id.* Therefore, Patent Owner argues, there is no motivation to combine these references, because Illinois Sales Tax is not directed to international shipping, only to shipments within the State of Illinois. *Id.* at 30–31.

Patent Owner attacks the evidence of motivation to combine the references on other grounds. Citing Dr. Greenspun's testimony to the effect that figuring sales tax on domestic sales is challenging, Patent Owner further argues that performing "challenging tax calculations" is "not consistent" with the patent claims. *Id.* at 31. Patent Owner also argues that, by requiring a remote buyer to consult tax tables and flow charts, a Van

Zandt/Illinois Sales Tax combination would defeat the objective of having the server computer performing tax calculations. *Id*.

Patent Owner alleges also that the combination of Van Zandt and Illinois Sales Tax does not meet all the claim elements. *Id.* at 32. Specifically, Patent Owner argues that Van Zandt does not meet the "shipping rate" limitation in the claims, and that Illinois Sales Tax does not cure this deficiency. *Id.* at 32–33. According to Patent Owner, Van Zandt provides the "total price," not the shipping rate, and Illinois Sales Tax only discloses tax calculations performed by the buyer. *Id.* at 33.

We are persuaded by Petitioner's arguments that it would have been obvious to combine Van Zandt and Illinois Sales Tax. Pet. 58–59. We are convinced by Petitioner's arguments, supported by the testimony of Dr. Greenspun,[5] that one of ordinary skill in the would have "readily appreciated the combinability of the sales tax calculation flow chart in Illinois Sales Tax to perform accurate tax calculations for the state of Illinois or another jurisdiction," including the tax and duty calculations set forth in Van Zandt. Pet. 58 (citing Greenspun Decl. ¶ 56).

We do not credit Patent Owner's argument limiting Van Zandt's teachings to international shipping. Van Zandt provides a comprehensive logistics services system and method, including providing landed cost quoting (62), to integrate logistics vendors "across any industry, at any time,

[5] Dr. Greenspun holds a Ph.D. in Electrical Engineering and Computer Science from MIT. He has authored five computer science textbooks. He has taught at MIT and has over 20 years of experience in computer software engineering. Greenspun Decl. ¶¶ 3–16. We determine him to be an expert in the field relevant to this patent and credit his testimony.

no matter what vendor carrier [] or mode of transportation is to be used and *no matter what country* the shipment is being handled in or delivered to." Ex. 1011, Abstract (emphasis added). More specifically, Van Zandt states that its system can calculate "*any* shipment duties and taxes." *Id.* at 22:18 (emphasis added); *see also id.* at 32:11–17. Nothing in Van Zandt discredits or disallows the calculation of domestic taxes as a component of its calculation of "any shipment duties and taxes."

We credit Dr. Greenspun's interpretation of the Van Zandt system as being "capable of handling the simpler task of calculating domestic taxes." Greenspun Decl. ¶ 54. We further credit Dr. Greenspun's testimony that one of ordinary skill in the art would have been motivated to combine Van Zandt with other references "whenever international shipping was potentially required," and that references such as Illinois Sales Tax would allow one of ordinary skill in the art to figure sales tax on domestic sales. *Id.* at ¶ 56. The motivation to combine references can come from many sources, including the nature of the problem to be solved. *ABT Sys., LLC v. Emerson Elec. Co.*, Nos. 2014-1618, 2014-1700, 2015 WL 4924160, at *9 (Fed. Cir. Aug. 19, 2015) (citing *Ruiz v. A.B. Chance*, 357 F.3d 1270, 1276 (Fed. Cir. 2004)). We determine, therefore, that Petitioner has presented sufficiently articulated and persuasive reasoning for combining the teachings of Van Zandt and Illinois Sales Tax that is supported by rational underpinnings. *KSR*, 550 U.S. at 418.

We are not persuaded by Patent Owner's arguments to the contrary, including those summarized above and the additional argument that the combination of Van Zandt and Illinois Sales Tax would require the remote buyer to perform the tax calculations. PO Resp. 31. Van Zandt's quoting

engine 62 determines, without apparent buyer involvement, all the duties and taxes that may be due on the shipment, searching tax rate data tables 92 to determine the taxes for the requested shipment. Ex. 1011, 32:11–17. Quoting engine 62 of Van Zandt searches the duty and tax look up tables to determine the duties and taxes for shipment, and the information contained in Illinois Sales Tax further improves the accuracy of the tax estimates. Pet. 58–59.

Patent Owner does not explain why or how an automated system as that described in Van Zandt, referencing the tax look up tables provided in Illinois Sales Tax, would require a remote buyer's participation. We agree with Petitioner that "[i]t is the system of Van Zandt — and not the buyer — that is performing any tax calculations." Pet. Reply 6. Taking this into account, as well as Dr. Greenspun's testimony that a person of ordinary skill would have been motivated to combine the system of Van Zandt with the tax information from Illinois Sales Tax (Greenspun Decl. ¶ 56), we are unpersuaded that a remote buyer would need to perform tax calculations if the references were combined.

We are also convinced by Petitioner's evidence that the combination meets the elements of the claims. Pet. 57–60. We are not persuaded by Patent Owner's argument that neither Van Zandt nor Illinois Sales Tax discloses the claimed "shipping rate." PO Resp. 32–33. This argument is unavailing in view of our interpretation of the term "shipping rate" to mean "the total cost of sending an auction item to a buyer."

We are persuaded that Van Zandt calculates a total shipping cost. In Van Zandt, if a buyer requests a shipment quote, web site 34 gathers purchase price information from a merchant or auction database and requests

additional information from buyer 42. Ex. 1011, 15:3–16:13. Web page 36 (Online Quoting screen, Figure 3) is presented to buyer 42 to obtain this information, which includes shipment value 246. *Id.* at 16:14–21:17. Once all required information is entered, buyer 42 clicks "Quote" button 248 to get a landed shipment quote. *Id.* at 21:18–20. Quoting engine 62 then adds pre-shipment charges (*e.g.*, packaging costs), a calculated door-to-door freight charge, a determined insurance premium, and calculated duties and taxes and sends the final determined quote to the requesting host server 30. *Id.* at 22:14–19; 34:18–35:3, Fig. 2G (steps 170–174). Host server 30 uses this shipment quote from quoting engine 62 to determine a total price (*i.e.*, product price + shipment price) to display to buyer 42. *Id.* at 33:7–10. Therefore, the combination of Van Zandt, which provides "a total price (i.e. product price + shipment price)," and Illinois Sales Tax discloses a "shipping rate" as we have construed the term.

We are not persuaded by Patent Owner's argument that Van Zandt's "total price" does not meet the claims because the shipment price is not separated out. PO Resp. 33. We agree, instead, with Petitioner, that to a person of ordinary skill, displaying the total price would include providing an itemized list of charges. Pet. Reply 7 (citing Greenspun Decl. ¶ 50).

2. Asserted Obviousness of Claims 1–8, 10–20, and 22–24 over Hosey and PriceGrabber.com

a. Hosey (Ex. 1012)

Hosey discloses an Internet ecommerce website that "provides/enables a premier destination for retail buyers, wholesale distributors and suppliers worldwide." Ex. 1012, 5:12–14. Hosey provides buyers with a listing of available products and a Details page with details of

individual products. Pet. 59; Ex. 1012, 15:11–18, 15:19–29. The Details files shown in Figure 4 "hold the manufacturer information" such as UnilWeight [sic], MPweight, Cweight, ShippingTerms, ShippingPoint1, ShippingPoint2, and others. Ex. 1012, Fig. 4, 13:6–7; Greenspun Decl. ¶ 58. Hosey calculates taxes, shipping, and duties automatically based on ZIP code or country code. Ex. 1012, 10:6–7.

b. PriceGrabber.com (Ex. 1013)

Petitioner's Exhibit 1013 is a screenshot of a page from PriceGrabber.com, taken from the Wayback Machine, dated June 19, 2000. Ex. 1013, 1–2, 3. Exhibit 1013 shows a table of "Retailer Price Comparisons" for the Palm V Organizer, and in a central column allows the buyer to "calculate 'YOUR' shipping, tax, and BottomLinePrice." Ex. 1013, 1. PriceGrabber.com explains that by "entering your zip code above we will calculate and display applicable sales tax, shipping and your total price ('BottomLinePrice') based on your location." *Id*.

c. Analysis

Petitioner asserts that claims 1–8, 10–20 and 22–24 are obvious over the combination of Hosey and PriceGrabber.com. Pet. 60–77. [6] Petitioner argues that from Hosey it was known to determine first whether taxes apply before calculating the applicable tax. Pet. 60. Petitioner further argues it would have been known that in order to accurately calculate taxes, Hosey would have to take into account the political division (including the state) having taxing jurisdiction over the buyer. *Id*. Finally, Petitioner argues

[6] The Petition (at 60) misidentifies the claims subject to this ground of challenge as 1–7, 9–17, and 19–21. *See* claim charts at Pet. 62–77.

Hosey describes that the seller enters a number of shipping details, *e.g.*, "Unit weight," "Case weight," "freight/shipping terms," "Shipping policy," and "Shipping point," and these are items that are necessarily included in the calculation of the shipping rate. *Id.*

According to Petitioner, PriceGrabber.com includes a shipping calculator interface as part of a product listing page. Pet. 61. The page provides an area to enter a destination ZIP code and a request button that permits the user to request a shipping rate calculation based on location. *Id.* Petitioner maintains that it would have been obvious to one of ordinary skill in the art "to include the interface of PriceGrabber.com in Hosey's 'listing' page or 'Details' page to provide shipping estimates to buyers in an integrated web page, in the same manner PriceGrabber.com does." *Id.* at 62 (citing Greenspun Decl. ¶ 62).

Patent Owner responds that combining Hosey and PriceGrabber.com is the "application of hindsight." PO Resp. 33–36. Specifically, Patent Owner argues that, in Hosey, the seller decides to sell to the buyer based on the buyer's purchase order. *Id.* at 34. Patent Owner thus contends that Hosey determines shipping costs to the buyer only after the purchase is made. *Id.* at 35.

Patent Owner argues also that PriceGrabber.com does not offer any items for sale, but rather presents item prices from other merchants, along with an approximate cost for tax and an approximate cost for shipping. *Id.* at 35–36. Patent Owner, therefore, summarizes its position as follows: Because Hosey's seller is making the purchase decision, and the buyer does not receive pricing and/or tax and shipping information, at least before the seller accepts the buyer's offer, "there is no reason, other than the

application of impermissible hindsight, to combine the seller-acceptance system of Hosey with the buyer-acceptance system of Pricegrabber.com." *Id.* at 36.

Patent Owner argues alternatively that the Hosey/PriceGrabber.com combination fails to meet the "shipping rate" limitation of the claims. PO Resp. 37–40. According to Patent Owner, Hosey discloses an interactive order request used for the buyer-user to identify an item to purchase. *Id.* at 37. Patent Owner contends that Hosey nowhere discloses providing a shipping rate to the buyer-user. *Id.* at 38. According to Patent Owner, the combination of Hosey and PriceGrabber.com "at best" discloses that the seller (not the buyer) would receive "the approximate tax cost, the approximate shipping cost, and the total price." *Id.* at 39–40. Moreover, that information would be received only after the transaction is completed. *Id.* at 40.

Similarly, Patent Owner asserts that PriceGrabber.com does not meet the "shipping rate" limitation. Patent Owner maintains that Pricegrabber.com provides only an approximate tax, approximate shipping cost, and a "BottomLinePrice" (price, tax, and shipping) after the buyer enters a ZIP code. *Id.* at 38. Patent Owner thus asserts that PriceGrabber.com does not disclose the calculation of the shipping rate as claimed. *Id.* at 39.

We are not convinced by Patent Owner's argument that Hosey and PriceGrabber should not be combined. Instead, we find persuasive reasoning for combining the references in the testimony of Petitioner's expert, Dr. Greenspun. Both Hosey and PriceGrabber.com provide buyers with a product listing page that allows a buyer the opportunity to obtain

details about the item to be purchased. Pet. 60; Ex. 1012, 15:19–29, Fig. 4; Ex. 1013. Dr. Greenspun testifies that, "based on PriceGrabber.com, a person of ordinary skill would have been motivated to display shipping and tax costs to consumers along with the 'List Price' on Hosey's product listings or on Hosey's 'Detail page,' which includes shipping information such as 'freight/shipping terms' and 'shipping policy'." Greenspun Decl. ¶ 62. This testimony provides a convincing reason to combine teachings of Hosey and PriceGrabber.com that is supported by rational underpinnings, namely, providing an integrated web page for buyers to obtain desired information. We are therefore not persuaded that Petitioner has engaged in impermissible hindsight in combining the references. Instead, we agree with Petitioner that it would have been obvious to make the combination.

At the oral hearing, Patent Owner's counsel suggested that there is no reason to combine the references because they "teach away." Hearing Tr. 94:13–14. But in response to questioning by the panel, Patent Owner's counsel agreed that Hosey does not disparage the type of calculation being done in PriceGrabber.com, taking instead the position that the two are not "necessarily compatible." Hearing Tr. 94:19–95:14.

We are not persuaded by Patent Owner's teaching away argument. Nowhere does Patent Owner demonstrate that Hosey criticizes, discredits, or otherwise discourages the use of its listing or Details page with a shipping interface. *In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004) (prior art's disclosure did not criticize, discredit, or otherwise discourage the claimed solution and therefore did not teach away). We do not agree, either, that the references are not "compatible." *See supra.*

Nor do we find support for Patent Owner's contention that the claim limitations are not met because Hosey determines shipping rate only after the purchase has been made. PO Resp. 35. We determine that Hosey describes software used to support the web site that includes a feature whereby: "[t]axes, shipping, duties are automatically calculated based on ZIP code or country code." Ex. 1012, 10:6–7. Hosey also describes a Details page, which is available to a user seeking more information about the product to be purchased, including freight/shipping terms, shipping points, and numerous other data points. *Id.* at 15:19–29. The buyer need not buy anything to view the Details page. *Id.* at 15:30–31. Thus, the Details page, and presumably the shipping information, could be available prior to purchase of an item. We therefore credit Dr. Greenspun's testimony that it would have been obvious to do so in light of PriceGrabber.com. Greenspun Decl. ¶ 62.

Patent Owner argues that the proposed combination of Hosey and PriceGrabber.com does not disclose the claimed shipping rate because in Hosey the buyer-user has not actually ordered anything and PriceGrabber.com only provides an approximate tax, approximate shipping cost, and a "BottomLinePrice" rather than the claimed shipping rate. PO Resp. 37–38. However, at oral argument, Patent Owner's counsel agreed that "some sort of shipping" is displayed in PriceGrabber.com, the only question being its accuracy. Hearing Tr. 93:11–16.

There is, however, another flaw in Patent Owner's timing argument as it relates to Hosey's provision of a shipping rate. Patent Owner has not demonstrated that the claims require an "advance" (i.e., pre-purchase) shipping rate. For example, claim 1 provides only that the shipping rate be

provided to the remote buyer computer. Claim 13 has similar language. Likewise, Patent Owner does not demonstrate where the requirement for an exact rather than an approximate shipping rate is reflected in the patent claims. Pet. Reply 10. In this regard we note that the specification consistently refers to an "estimate." *See* Ex. 1001, Abstract, col. 2, ll. 6–8, col. 7, ll. 17–21, Fig. 6.

In summary, Petitioner contends that "Patent Owner's argument that Hosey does not disclose 'shipping and tax costs to the buyer' ignores that the applicable ground *modifies* Hosey in view of Pricegrabber.com to provide a shipping estimate as PriceGrabber.com does." Pet. Reply 8. Specifically, Petitioner argues that it would be "natural" to provide shipping calculations determined using the data in Hosey's database, including "Unit Weight," "Case weight," shipping points, and other information, in Hosey's modified user interface that incorporates the features of PriceGrabber.com. *Id.* at 8–9. For the foregoing reasons, we are persuaded by Petitioner's argument.

3. Secondary Evidence of Non-Obviousness

Patent Owner argues that secondary evidence "confirms" the non-obviousness of the claimed invention. PO Resp. 40. We therefore consider this evidence (sometimes referred to as objective evidence or indicia) along with the contentions of the parties in reaching our final determination as to the obviousness of claims 1–24.

Secondary considerations may include any of the following: long-felt but unsolved needs, failure of others, unexpected results, commercial success, copying, licensing, and praise. *Graham*, 383 U.S. at 17. Patent Owner argues that several objective indicia relating to the development of its

own online shipping calculator demonstrate the non-obviousness of its claimed invention.

We note that it is not sufficient that a product or its use merely be within the scope of a claim in order for secondary evidence of non-obviousness tied to that product to be given substantial weight. There must also be a causal relationship, termed a "nexus," between the evidence and the claimed invention. *Merck & Co. v. Teva Pharms. USA, Inc.*, 395 F.3d 1364, 1376 (Fed. Cir. 2005). A nexus is required in order to establish that the evidence relied upon traces its basis to a novel element in the claim, not to something in the prior art. *Institut Pasteur & Universite Pierre et Marie Curie v. Focarino*, 738 F.3d 1337, 1347 (Fed. Cir. 2013). Objective evidence that results from something that is not "both claimed and novel in the claim," lacks a nexus to the merits of the invention. *In re Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011). All types of objective evidence of non-obviousness must be shown to have such a nexus. *In re GPAC Inc.*, 57 F.3d 1573, 1580 (Fed. Cir. 1995) (nexus generally); *see also Rambus Inc. v. Rea*, 731 F.3d 1248, 1256 (Fed. Cir. 2013) (long-felt need); *Wm. Wrigley Jr. Co. v. Cadbury Adams USA LLC*, 683 F.3d 1356, 1364 (Fed. Cir. 2012) (copying); *In re Huang*, 100 F.3d 135, 140 (Fed. Cir. 1996) (commercial success). The stronger the showing of nexus, the greater the weight accorded the objective evidence of non-obviousness. *See Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 306 (Fed. Cir. 1985).

a. Long-Felt Need and Failure of Others

Patent Owner argues that the invention of the '357 patent met the needs of merchants and customers to determine shipping and handling costs accurately and in a timely fashion for online sales. PO Resp. 42–43. Patent

Owner asserts that industry leaders such as eBay and Amazon lacked solutions for calculating shipping costs and had to charge flat shipping rates, which were inherently unfair. *Id.* at 44. Patent Owner further argues that other merchants tried to charge actual shipping costs but incurred higher transaction costs to do so and faced the possibility of losing sales by disclosing actual shipping costs too late in the transaction. *Id.* at 45–46. Patent Owner also urges that merchants who offered free shipping had problems with sales margins. *Id.* at 46. Patent Owner argues that its own automated online shipping calculator addressed these problems. *Id.*

These arguments are not persuasive for a number of reasons. To establish evidence of a long-felt but unresolved need, a patent owner must show that there was a persistent problem that was recognized by those of ordinary skill in the art. *See In re Gershon*, 372 F.2d 535, 538 (CCPA 1967). The problem must not have been solved previously by another, and the claimed invention must, in fact, satisfy the long-felt need. *See Newell Cos., Inc. v. Kenney Mfg. Co.*, 864 F.2d 757, 768 (Fed. Cir. 1988). Furthermore, the evidence of secondary considerations must be commensurate with what is claimed. *See In re Kao*, 639 F.3d at 1068 (citing *In re Tiffin*, 448 F.2d 791, 792 (CCPA 1971)).

As noted by Petitioner, the claims of the ’357 patent do not support the argument for long felt need. Pet. Reply 11. The claims themselves do not require accurate, exact, or timely shipping rates. *Id.* Claim 1, for example, calculates a shipping rate based on shipping preferences of a remote seller. The claim does not require that the calculated shipping rate be exact, or that the calculated rate be provided to the remote buyer computer at a particular time in the process. *Id.* Claim 13 is similar in this respect.

Second, Van Zandt and PriceGrabber.com, among others, disclose shipping calculators that provided shipping cost estimates for online shoppers. *See supra*. Thus, Patent Owner has not shown that the asserted need for a shipping calculator and novel or nonobvious features of the claimed shipping rate calculator was unsatisfied.

Third, the evidence presented by Patent Owner indicates that merely calculating shipping costs did not meet the most pressing needs of online merchants or consumers. For merchants, it was order fulfillment, not calculating shipping costs, that presented the biggest impediment to online shopping. Thus, the Rotman Declaration describes problems faced by the industry by referring to certain "articles [that] do not necessarily deal with calculating shipping costs, [but] show that *delivery of goods was a key concern* for merchants – including merchants selling in online auctions – as ecommerce expanded." Rotman Decl. ¶ 50 (discussing Exs. 2035–44) (emphasis added). These articles discuss the need of online retailers for inventory, shipping, and fulfillment solutions and the trend to outsource such operations to Federal Express (FedEx) and United Parcel Service (UPS). *See* Exs. 2035–44.

The evidence presented by Patent Owner also indicates that online shoppers wanted lower shipping costs, as acknowledged in Mr. Rotman's testimony. Rotman Decl. ¶ 57 ("one of the primary reasons – if not ***the*** primary reason – that consumers would discontinue an online purchase . . .

was shock at the cost of shipping").[7] The shipping calculator claimed in the '357 patent does not solve this problem, either.

Patent Owner's long-felt need argument relies heavily on a failed attempt to convince eBay to adopt Patent Owner's online shipping calculator. PO Resp. 48–51. We are not persuaded by this evidence.

Patent Owner argues that eBay's acknowledged need for an improved shipping solution was "still unresolved" in 2001 when eBay and Patent Owner discussed Patent Owner's shipping calculator. PO Resp. 47. But the evidence of record shows the need (to the extent it existed) was met by others, including iShip.com and UPS, and therefore does not support this assertion.

As early as 1999, eBay offered a limited shipping rate calculation service through iShip.com. PO Resp. 49. By 2000, eBay had partnered with FedEx and UPS to lower shipping costs for its customers. Rotman Decl. ¶ 54f. By December 2001, Patent Owner was aware of iShip.com's shipping calculator. Rotman Dep. 252:6–257:7. And in 2003, eBay chose UPS to provide a comprehensive shipping solution that integrated a shipping calculator into eBay's site. Ex. 2068–71; PO Resp. 47–48.

The evidence indicates that eBay's shipping needs changed rapidly within the span of a few years, and when iShip.com's shipping calculator no longer met eBay's need for integrated shipping solutions, other solutions

[7] The Rotman testimony discusses articles about shoppers abandoning online purchases due to high shipping costs. Rotman Decl. ¶ 51; *see* Exs. 2045–53, 2072–82. Other articles discuss the need to choose shipping costs that do not lose customers or undermine profits of businesses. *See* Exs. 2054–56.

were available.[8] Thus, eBay chose instead UPS's shipping solutions with an integrated shipping calculator for eBay's website. Rotman Decl. ¶ 67. eBay later required its customers to use standard eBay tools integrated into eBay's web site and blocked eBay users from using third party shipping calculators. PO Resp. 55; Rotman Decl. ¶ 68. In light of this history, therefore, we are not persuaded that there was a long-felt need by eBay or others for the claimed shipping calculator that others failed to meet. Nor do we perceive any failure by eBay to "develop technology." PO Resp. 47. eBay simply chose to use solutions developed by others.

b. Copying

Patent Owner asserts that eBay copied Patent Owner's invention. PO Resp. 51–52. Copying, as objective evidence of non-obviousness, requires evidence of effort to replicate a specific product. *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1246 (Fed. Cir. 2010); *Iron Grip Barbell Co., Inc. v. USA Sports, Inc.*, 392 F.3d 1317, 1325 (Fed. Cir. 2004).

Patent Owner argues that eBay wanted to view Patent Owner's technology because eBay "struggled" to implement a shipping solution that improved its user's ability to determine actual shipping costs for transactions. PO Resp. 52. Patent Owner argues that once eBay "accessed" Patent Owner's technology, eBay cut off communications with Patent Owner and developed its own version of Patent Owner's calculator. *Id.* at 52. Patent Owner argues that the shipping calculator debuted by eBay in June 2004 bore a "striking resemblance" to the version that Patent Owner

[8] Initially, eBay took a hands-off approach and allowed buyers and sellers to work out payment and shipping issues. *See* Rotman Decl. ¶¶ 28, 52, 54c, 54g, 54h, 54i; PO Resp. 43.

had demonstrated to eBay, but lacked advanced features that Patent Owner had developed in the intervening year. *Id*. From this, Patent Owner concluded that eBay copied Patent Owner's invention. *Id.*

Patent Owner relies on Mr. Rotman's testimony as the factual support for its copying claim. Mr. Rotman testifies that eBay was interested in integrating a shipping calculator into its platform and discussed setting up a demonstration of Patent Owner's calculator. Rotman Decl. ¶¶ 61–62. Patent Owner's demonstration to eBay involved cutting and pasting printouts of Patent Owner's AuctionInc website into printouts of eBay's website to create the "look and feel" of how Patent Owner's calculator would look when integrated into eBay's website. *Id.* ¶ 63.

Mr. Rotman testifies that Patent Owner also presented a live demonstration of its non-integrated shipping calculator to eBay. *Id.* ¶ 64. Later, in spring 2002, Patent Owner made the demonstration available online to eBay. *Id.* ¶ 65. Ultimately, however, eBay did not show any further interest in Patent Owner's shipping rate calculator. *Id*. A year and a half later, eBay announced the introduction of its own shipping calculator. *Id.* ¶ 67.

Patent Owner's contention that the eBay shipping calculator "bore a striking resemblance to the earlier version Paid demonstrated to eBay" by itself does not establish a nexus to the claimed invention. PO Resp. 52. Patent Owner's proofs do not include any direct evidence of copying or otherwise establish that eBay copied the patented shipping calculator or a commercial product using the patented technology. The record indicates that eBay's access to Patent Owner's calculator was very limited: a mock-up and online demonstration. *See supra.* Patent Owner has not provided

sufficient evidence that eBay had access to any details or copied the patented technology.

Moreover, at the final hearing, counsel for Patent Owner confirmed that the shipping calculator for eBay's site was provided by UPS. *See* Hearing Tr. 51:14–52:8. This effectively rebuts any assertion of copying of Patent Owner's product by eBay, and, in fact, demonstrates that suitable alternative calculators were available. *See supra*. We are not persuaded by Patent Owner's assertion that eBay copied the patented shipping calculator.

c. Commercial Success

Evidence of commercial success "is only significant if there is a nexus between the claimed invention and the commercial success." *Ormco Corp. v. Align Tech., Inc.*, 463 F.3d 1299, 1311–12 (Fed. Cir. 2006). To establish a proper nexus between a claimed invention and the commercial success of a product, a patent owner must offer "proof that the sales [of the allegedly successful product] were a direct result of the unique characteristics of the claimed invention—as opposed to other economic and commercial factors unrelated to the quality of the patented subject matter." *Huang*, 100 F.3d at 140.

Patent Owner argues that its shipping calculator was a commercial success that led to the growth of Rotman Auction as one of the largest sports memorabilia vendors and a Top 200 Seller on eBay. PO Resp. 54. Patent Owner argues that its AuctionInc technology includes a shipping calculator and is used by a core of customers. *Id.* Patent Owner argues that use of the automated shipping calculator allowed Patent Owner to grow sales and revenues by virtually eliminating customer inquiries about shipping and post-auction bottlenecks of calculating shipping costs. *Id.* at 54. Patent

Owner asserts that its technology was used by other online merchants and eBay users until eBay blocked the use of such third-party shipping calculators. *Id.* at 55.

We are not persuaded by Patent Owner's commercial success evidence. As a threshold matter, Patent Owner has not established a nexus between its commercial product and the novel and non-obvious features of its claimed calculator. Patent Owner's AuctionInc technology includes many features besides a shipping calculator. Rotman Dep. 59:11–61:5. Patent Owner has not shown that the AuctionInc shipping calculator embodies the claimed invention, or that sales of AuctionInc resulted from the novel, non-obvious features of the claimed shipping calculator rather than other features. *See Ormco Corp.*, 463 F.3d at 1312–13 (evidence did not show that commercial success was due to claimed and novel features). In fact, Mr. Rotman admitted that his testimony does not attribute the success of his business selling products on eBay to the shipping calculator. Rotman Dep. 236:15–237:12.

Even if Patent Owner had established a nexus between its AuctionInc technology and the shipping calculator claimed in the patent, however, its commercial success argument would not be persuasive. Patent Owner has not provided evidence of the market share held by its AuctionInc technology or its shipping calculator to back up its claim of commercial success. PO Resp. 53. Assertions that Patent Owner cultivated up to 1,050 customers and a stable core of customers for AuctionInc technology does not address whether this represents a substantial share of the relevant market. *See* PO Resp. 54–55; Rotman Decl. ¶¶ 68–69; *see also Huang*, 100 F.3d at 140

("evidence related solely to the number of units sold provides a very weak showing of commercial success, if any").

d. Conclusion

Having considered all of the evidence and contentions of the parties regarding the obviousness of claims 1–24, including secondary evidence and indicia of non-obviousness presented by Patent Owner, we determine that Petitioner has established by a preponderance of evidence that claims 1–24 are unpatentable under the asserted grounds. The relatively weak secondary evidence of non-obviousness, diminished further by Patent Owner's failure to show nexus to the claimed invention, is not sufficient to overcome the relatively strong evidence of obviousness presented by Petitioner. *See Ohio Willow Wood Co. v. Alps South, LLC*, 735 F.3d 1333, 1344 (Fed. Cir. 2013) (requisite nexus between secondary indicia and invention must be shown for evidence to be accorded substantial weight, and where a claimed invention represents no more than the predictable use of prior art elements according to established functions, evidence of secondary indicia is often inadequate to establish non-obviousness); *Rothman v. Target Corp.*, 556 F.3d 1310, 1322 (Fed. Cir. 2009) (strong prima facie obviousness showing may stand even with considerable evidence of secondary factors).

F. Petitioner's Motion to Exclude

Petitioner contends that Exhibits 2035–85 should be excluded as inadmissible hearsay under Federal Rule of Evidence 802 and for lack of proper authentication under Federal Rule of Evidence 901. Paper 27 ("Motion"). Petitioner also seeks to exclude certain testimony in the Rotman Declaration (Ex. 2004) that relies on those exhibits. Motion 1. Petitioner argues that the exhibits, printouts of websites, articles, and press

releases of third-parties, are relied upon by Patent Owner to establish the truth of the matters asserted therein in support of its allegations of secondary evidence of non-obviousness. *Id.* at 2.

Patent Owner opposes, arguing that the challenged exhibits are not hearsay because they are not offered to prove the truth of the matters asserted therein. Patent Owner contends also that they are authentic reproductions of sources that are publicly-available. Paper 31, 1–2.

In reaching our decision on patentability, we have reviewed the challenged evidence and determined it to be insufficient on the issue of obviousness. *See supra*. In view of our disposition of this case, we do not find it necessary to address the motion to exclude and therefore dismiss it as moot.

IV. ORDER

In consideration of the foregoing, it is hereby

ORDERED that claims 1–24 of U.S. Patent No. 8,352,357 are unpatentable; and

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

PETITIONER:

Timothy Riffe
riffe@fr.com

Leland Gardner
CBM25357-0024CP1@fr.com

PATENT OWNER:

Robert King
rking@hunton.com

Yisun Song
ysong@hunton.com

David Kelly
dkelly@hunton.com

Michael O'Shea
moshea@hunton.com