

Appeals No. 2015-1703 and 1704

United States Court of Appeals for the Federal Circuit

**APPLE, INC., DOMINO'S PIZZA, INC., DOMINO'S PIZZA, LLC,
FANDANGO, LLC, OPENTABLE, INC.,**
Appellants

v.

AMERANTH, INC.,
Cross-Appellant

Appeal from the United States Patent and Trademark Office,
Patent Trial and Appeal Board in No. CBM2014-00013

**Corrected Brief for Intervenor—Director of the
United States Patent and Trademark Office**

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October 29, 2015

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STATEMENT OF RELATED CASES

The Director of the United States Patent and Trademark Office (“Director” and “USPTO”) adopts by reference the statement of related cases of Ameranth, Inc. (“Ameranth”) and Apple, Inc., Domino’s Pizza, Inc., *et al.* (“the petitioners”). As those statements note, this appeal has been designated as a companion case with appeals numbered 15-1792 and -1793. The patents in all of these appeals are from the same family and vary significantly only as to some of their dependent claims. The principal arguments made in this brief are identical to those made in the Director’s brief in appeals numbered 15-1792 and -1793, although this brief also addresses several significant issues that are not raised in those other appeals.

The Director is not aware of any other appeal in connection with this proceeding that has previously been before this or any other court, or of any other case pending in this or any other court that will directly affect or be directly affected by this Court’s decision in this appeal.

I. STATEMENT OF THE ISSUE

Under *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347 (2014), a patent claim directed to an abstract idea is not transformed into patentable subject matter merely because it recites implementation of the idea via conventional computer technology. To confirm its understanding that a claim relies only on existing, conventional technology, this Court looks to statements made in the patent's specification, and whether that specification discloses any other means of implementing the invention. Ameranth's patent specification describes only the use of existing technology and "commonly known" programming steps to implement its claimed business method. The principal question on this appeal is whether the Patent Trial and Appeal Board ("Board") reasonably applied its knowledge and expertise to conclude that Ameranth's claims recite only conventional computer technology—where, as here, the patent fails to describe any non-prior art means for implementing the claimed invention.

II. STATEMENT OF THE CASE

A. The '733 Patent: Updating Menus and Food Orders on a Computer

Ameranth owns U.S. Patent No. 6,982,733 ("the '733 patent"), which claims a computerized method and system for updating a menu and taking

orders at a restaurant. A50.¹ The patent's specification notes that while computers have become ubiquitous, "pen and paper have prevailed in the hospitality industry, e.g., for restaurant ordering, reservations and wait-list management, because of their simplicity, ease of training and operational speed." A59, col.1, ll.28-31. To bring the advantages of computers to restaurants, the '733 patent proposes "a desktop software application that enables the rapid creation and building of a menu and provides a means to instantly download the menu configuration onto, e.g., a handheld device or Web page." A60, col.3, ll.24-28. This system allows a user to "seamlessly interface with standard point of sale ('POS') systems to enable automatic database updates and communication exchanges when a change or input occurs in any of the other system elements." A60, col.3, ll.28-32.

To build a menu, the '733 patent proposes a graphical user interface that uses "[a] hierarchical tree structure." A62, col.7, ll.29-30. This embodiment is illustrated in figure 1, which is reproduced below. The hierarchical tree structure

show[s] the different relationships between menu categories 3 (e.g., soups, salads, appetizers, entrees, desserts, etc.), menu items 4 (e.g., green salad, chicken caesar salad, etc.), menu modifiers 5 (e.g.,

¹ Throughout this brief, pages of the Joint Appendix are cited as "A," pages of Ameranth's opening brief are cited as "Am. Br.," and pages of the petitioners' opening brief are cited as "Pet. Br."

dressing, meat temperature, condiments, etc.) and menu sub-modifiers 6 (e.g., Italian, French, ranch, bleu cheese, etc.).

A62, col.7, ll.30-36.

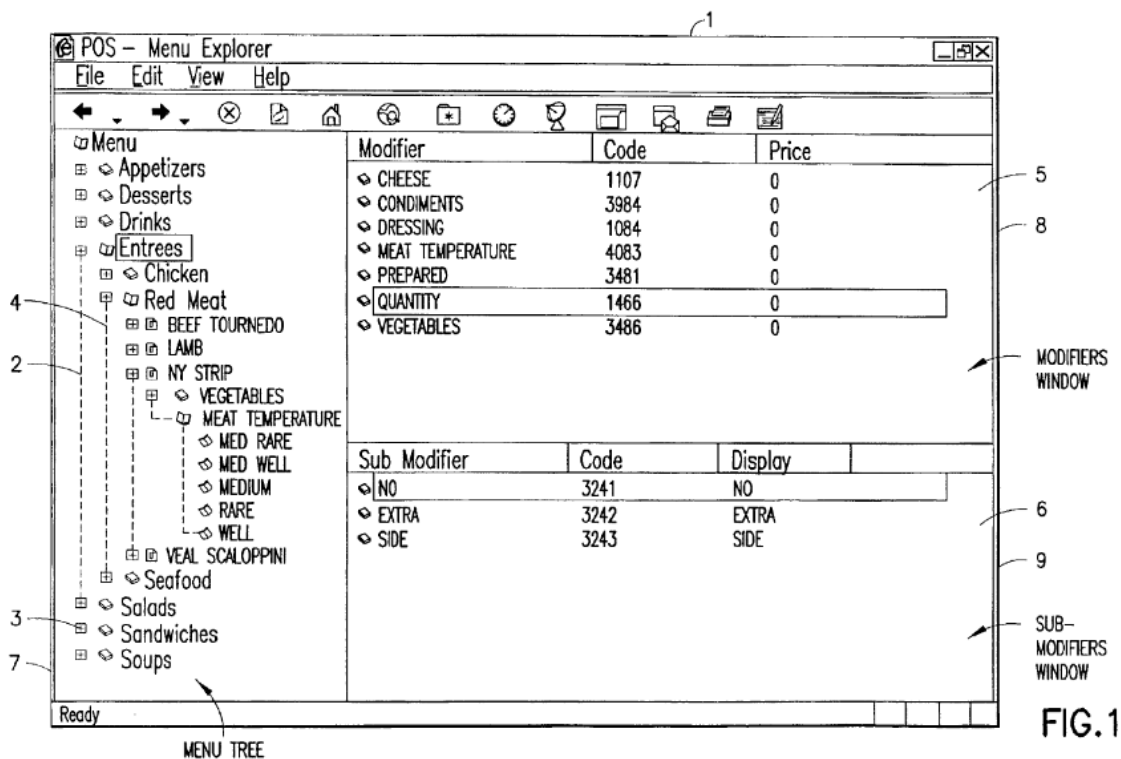
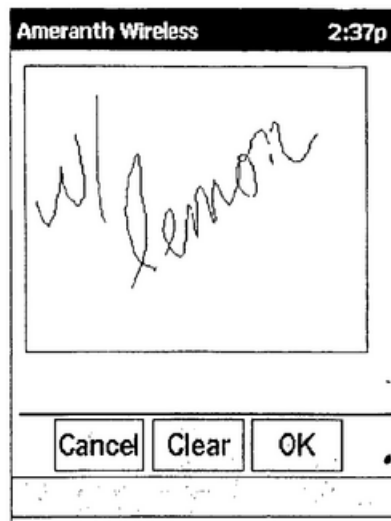


FIG. 1

A51, figure 1.

The '733 patent also describes “making manual or automatic modifications to the menu after initial creation.” A60, col.3, ll.46-47. These modifications are made in relation to a customer’s order. They solve “a long-standing, operational issue in restaurant/hotel/casino food/drink ordering when customers want something unusual and not anticipated and available through normal computerized selections.” A60, col.3, ll.54-57. The modifications are made “manually” (A66, col.16, ll.23-25), which may include making them

through “handwritten screen captures and/or voice recorded message captures coupled with the standard menus.” A60, col.3, ll.48-50. Figure 8, reproduced below, illustrates a modification to an order via handwriting screen capture. In this figure, an electronic device captures the handwritten modification “with lemon” to an order for iced tea:



A57, figure 8; *see also* A60, col.4, ll.5-37 (discussing figure 8 and related embodiments).

The '733 patent also discloses an embodiment in which “[t]he server can . . . select any printer from within the hospitality establishment directly from the operator interface on the screen of the hand-held [device] and have either the order or the receipt printed out where it is most convenient and efficient.” A60, col.4, ll.14-18.

Finally, the '733 patent broadly notes that it relies on existing technology to implement its invention. The specification states that “[t]he preferred embodiment of the present invention uses typical hardware elements in the form of a computer workstation, operating system and application software elements which configure the hardware elements for operation in accordance with the present invention.” A61, col.6, ll.47-52. “The workstation hardware is configured by software including an operating system, e.g., Windows® 95, 98, NT or CE, networking software (including internet browsing software) and application software components.” A61, col.6, ll.59-62. These are “common [graphical user interface] operating systems that provide [an] ‘object oriented’ environment for personal computers.” A61, col.6, ll.21-22. Graphical user interfaces “allow users to manipulate their data.” A61, col.6, ll.13-14. “The records of [a] file can be created, deleted, modified, and arranged in a drag-and-drop fashion as if they also were physical objects.” A61, col.6, ll.18-20.

The specification also notes that “Windows CE® provides the benefits of a familiar Windows 95/98/NT® look and feel, [and] built-in synchronization between handheld devices, internet and desktop infrastructure.” A64, col.12, ll.15-18. The specification indicates that “[t]he software applications for performing the functions falling within the described invention can be written in any commonly used computer language.” A64, col.12, ll.60-62. “The discrete

programming steps are commonly known and thus programming details are not necessary to a full description of the invention.” A64, col.12, ll.62-65.

Claim 1 is illustrative of the claimed invention. It recites:

1. An information management and synchronous communications system for generating and transmitting menus comprising:

- a. a central processing unit,
- b. a data storage device connected to said central processing unit,
- c. an operating system including a graphical user interface,
- d. a first menu consisting of menu categories, said menu categories consisting of menu items, said first menu stored on said data storage device and displayable in a window of said graphical user interface in a hierarchical tree format,
- e. a modifier menu stored on said data storage device and displayable in a window of said graphical user interface,
- f. a sub-modifier menu stored on said data storage device and displayable in a window of said graphical user interface, and
- g. application software for generating a second menu from said first menu and transmitting said second menu to a wireless handheld computing device or Web page,

wherein the application software facilitates the generation of the second menu by allowing selection of categories and items from the first menu, addition of menu categories to the second menu, addition of menu items to the second menu and assignment of parameters to items in the second menu using the graphical user interface of said operating system, said parameters being selected from the modifier and sub-modifier menus, wherein said second menu is manually modified after generation.

A66.

B. The Board’s Decision: Some, But Not All, Claims of the ’733 Patent Are Unpatentable Under § 101

The petitioners petitioned for Covered Business Method Review of the ’733 patent, and the Board instituted review on all claims of the patent under § 101 of title 35. A68-145; A1389-1418. After briefing and an oral hearing, the Board entered a final written decision in which it concluded that claims 1, 2, 4, 5, 10, and 12 of the patent recite ineligible subject matter, but that the petitioners had not met their burden of showing that claims 3, 6-9, 11, and 13-16 are unpatentable. A43.

Applying the first step of the Supreme Court’s *Alice* framework, the Board concluded that all of the patent’s claims “are directed to the abstract idea of generating a second menu from a first menu and sending the second menu to another location.” A26. The Board then applied step two of the *Alice* test to the claims in a series of overlapping analyses.

1. The Board Found that Claims 1, 2, 4, 5, 10, and 12 Recite the Use of Only Conventional Technology

a. Computers and Graphical User Interfaces

The Board noted that independent claims 1, 4, 5, and 12 each recites a processor, a data storage device, and an operating system with a graphical user interface, among other elements. A27; A31; A34; A37. The Board also noted that the patent’s own specification describes processors and data storage devices as “typical hardware elements,” and that it indicates that “the use of [graphical

user interfaces], such as Microsoft Windows® and Windows CE® for handheld device[s], were known, and that [graphical user interfaces] were a known means for allowing a user to manipulate data.” A27 (quoting A61, col. 6, ll.6-30, 46-52); *see also* A31; A34; A38. The Board concluded that “these claim elements require nothing more than a generic computer with generic computer elements performing generic computer functions,” and that “[u]sing a graphical user interface, a known way for a user to interact with the computer, does not change the generic nature of the computer.” A27; *see also* A31; A34-35; A38.

b. Hierarchical Tree Structures

The Board noted that claim 1 recites displaying a menu in graphical user interface in a hierarchical tree format. A27. Citing the specification’s statement that such hierarchical displays are “conventional,” the Board concluded that this limitation does not impart patent eligibility to the claims. A27-A28.

c. Generating a Menu

The Board noted that independent claims 1, 4, and 5 recite generating a second menu by modifying a first menu. A28; A32; A35. The Board also noted that “[t]he Specification discloses that [graphical user interfaces] that display menus from which records can be created, deleted, modified, or arranged are conventional.” A28; A32; A35. The Board thus concluded that this limitation did not add “significantly more” to the claims’ abstract idea. A28; A32; A35.

d. Transmitting or Synchronizing the Second Menu to Another Device

The Board noted that claim 1 recites transmitting the second menu to a wireless handheld computing device or web page (A28), and that claims 4, 5, and 12 recite synchronizing the second menu with another computing device. A32; A35; A38. The Board cited the specification's statement that a menu is transmitted to another device by downloading the menu, and it found that downloading is conventional post-solution activity that does not impart patent eligibility to the claims. A28-29 (citing A60, col.3, ll.42-43; A61, col.6, ll.33-36; A62, col.7, l.26; A63, col.10, ll.1-9, 12-14); A32; A35; A38. With respect to the synchronization limitation of claims 4, 5, and 12, the Board further noted that the patent's specification discloses that "Window CE® includes 'built in synchronization between handheld devices, internet, and desktop infrastructure.'" A32; A36; A38-39 (quoting col.12, ll.15-18 of the '733 patent). The Board concluded that synchronizing information is conventional post-solution activity. A32-33; A36; A39.

e. Manually Modifying the Second Menu After It Is Generated

The Board noted that claims 1, 4, 5, and 12 each recite manually modifying a menu after it is generated. The Board, citing the specification, found that it was "known to use pen and paper in the hospitality industry." A29; A33; A36; A39 (citing A59, col.1, ll.27-35). The Board also cited a passage

from the petitioners' reply brief that cites a prior art patent for the proposition that "[t]echnology for 'manually modifying'/editing on a handheld computer was old and well-known in the art at the time of the '733 patent." A29; A33; A36; A39 (citing A1615-1616). The Board concluded that the "[manually modifying] claim element is nothing more than insignificant post solution activity and is not sufficient to transform the abstract idea into patent-eligible subject matter." A29; A33; A36; A39.

f. Printing from a Handheld or Other Device

The Board noted that claims 2 and 10 recite allowing a modified menu to be "selectively printed on any printer directly from the graphical user interface" of a handheld or other device. A40. Citing the specification's disclosure "that menus are commonly printed on paper" (*id.* (citing A59, col.2, ll.10-11)), the Board concluded that this limitation only amounts to "insignificant post solution activity." A40.

2. The Board Found that the Petitioners Failed to Show that Claims 3, 6-9, 11, and 13-16 Recite Only Conventional Technology

a. Claims 3 and 11: Linking Modified Menus to Customer Locations

Dependent claims 3 and 11 include the additional limitation of "wherein the modified second menu can be linked to a specific customer at a specific table directly from the graphical user interface of" a hand-held or other computing

device. A66; A67. The Board noted that the petitioners argued that this limitation cannot be patent eligible because it could be done manually. A41. The Board concluded, however, that the petitioners provided “insufficient evidence to establish that a menu having the functionality to perform the claimed linking from a [graphical user interface] on a hand-held device, was well known or conventional.” A42.

b. Claims 6-9 and 13-16: Manual Modification Via Voice and Handwriting Capture and Conversion to Text

Claims 6 through 9 and claims 13 through 16 include the additional limitations that the manual modification of the second menu is implemented via handwriting capture, handwriting recognition and conversion to text, voice capture, or voice recognition and conversion to text. A67. The Board concluded that these claims “require that the menus have handwriting capture or voice capture functionality.” A42. The Board noted petitioner’s argument that these functions could be performed manually. It concluded, however, that the petitioner had failed to show that “menus having handwriting capture or voice capture functionality were well-known or conventional at the time of the ’733 patent.” A43.

III. SUMMARY OF THE ARGUMENT

Because in this case, the Board’s institution-phase “technological invention” decision will effectively be reevaluated by this Court on its review of the Board’s final written decision, this Court lacks jurisdiction to separately review the institution decision. The Court’s review of the underlying issue—whether the recited technologies are conventional and obvious—is limited to the conclusion reached by the Board in its final written decision, which is made on a more complete record. If that final decision is correct, any error in the institution decision was “washed clean” by the final written decision, and there is no need to review the institution decision because it is clear that a sufficient petition could have been presented.

The Board correctly applied the two steps of the *Alice* analysis. It properly concluded that ordering food at a restaurant is an abstract human activity. And the Board reasonably applied its background knowledge and expertise—just as courts have done—to conclude that the recited technological limitations, such as “synchronizing” data and using “graphical user interfaces” with “hierarchical tree formats,” are routine and conventional. The Board’s conclusions are confirmed by the specification’s own admissions that the recited technologies are conventional, and by the specification’s failure to describe any non-prior art means for implementing the technologies.

Ameranth purports to dispute the Board’s claim constructions, but the alternative limitations that it urges are either interchangeable with, or actually identical to, the constructions adopted by the Board. The Board appropriately employed constructions that track the actual words of the claims, rather than adopting new terms with unspecified meanings. The Board also reasonably determined that the broad recitation of “manual modification” of a menu is not limited to using electronic handwriting capture technology, which is specifically claimed elsewhere.

Finally, with respect to the claims that the Board confirmed, the petitioners failed to meet their burden of showing that these claims recite ineligible subject matter. Although the petitioners showed that the claims are directed to an abstract idea, they failed to present any evidence or analysis that the claims’ recited technologies are routine and conventional.

IV. ARGUMENT

A. Standard of Review

This Court reviews its own jurisdiction de novo. *See Litecubes, LLC v. N. Light Products, Inc.*, 523 F.3d 1353, 1360 (Fed. Cir. 2008). The Board’s § 101 analysis is reviewed for legal error, while its underlying factual findings are reviewed for substantial evidence. *See Versata Dev. Group, Inc. v. SAP America, Inc. (“Versata II”)*, 793 F.3d 1306, 1336 (2015).

B. This Court Lacks Jurisdiction to Review the Board’s Institution-Phase Decision that the ’733 Patent Does Not Claim a “Technological Invention”

1. *In re Hiniker Co.* Bars Review of an Institution-Phase Decision that Overlaps With, and Is “Washed Clean” by, a Final Decision

In re Hiniker Co., 150 F.3d 1362 (Fed. Cir. 1998), held that when this Court’s direct review of a USPTO post-issuance proceeding is limited to the Board’s final decision, the Court lacks jurisdiction over a preliminary decision to commence the proceeding that overlaps with the Board’s final decision. *See id.* at 1367. *Hiniker* involved the reexamination statute, which requires a requester to present a substantial “new” question of patentability. *See id.*; *In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268, 1273-74 (Fed. Cir. 2015). The requester in that case relied on previously-considered art to start the proceeding, but the Board’s final decision cited new art. *See Hiniker*, 150 F.3d at 1367; *Cuozzo*, 793 F.3d at 1274. *Hiniker* held that the Court’s review was limited to the Board’s final decision, and did not encompass the preliminary decisions to order the proceeding. *See Hiniker*, 150 F.3d at 1367.

The *Hiniker* Court reasoned that the error in the preliminary decision to order the proceeding was “washed clean” by the proceeding itself, which resulted in a final decision that was subject to this Court’s full review. *Id.* Thus under *Hiniker*, even “a flawed decision to institute . . . [a proceeding] [i]s not a basis for setting aside a final decision.” *Cuozzo*, 793 F.3d at 1273-74. Where

such a preliminary question overlaps with and merges into the final decision, this Court’s jurisdiction is “only over [the] appeal from the final decision of the Board.” *Id.* (quoting *Hiniker*, 150 F.3d at 1367). Moreover, this doctrine applies independently of, and in addition to the limitations of, any statutory bar on review of the decision to initiate a proceeding. *See id.* at 1273, n.3 (noting that 35 U.S.C. § 303(c) only bars review of a decision *not* to order a reexamination).

2. The Board’s Preliminary “Technological Invention” Decision Overlaps With, and Was “Washed Clean” by, the Final Decision

CBM review is limited to patents with claims that are not directed to a “technological invention.” Leahy-Smith America Invents Act, Pub. L. No. 112-29, § 18(d)(1) (2011). To determine whether a claim is directed to a technological invention, the Board considers “whether the claimed subject matter as a whole recites a technological feature that is novel and unobvious over the prior art,” and whether it “solves a technical problem using a technical solution.” 37 C.F.R. § 42.301(b). This inquiry substantially overlaps with a § 103 obviousness analysis—as well as with step two of the *Alice* framework. Courts applying step two of *Alice* “have found guidance in deciding whether the allegedly abstract idea (or other excluded category) is indeed known, conventional, and routine, or contains an inventive concept, by drawing on the rules of patentability.” *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d

1343, 1347 (Fed. Cir. 2015); *see also id.* at 1346 (“[d]etermination of what is an inventive concept favors inquiries analogous to those undertaken for determination of patentable invention”).

The Director does not contend that a proper institution-phase decision that a patent is for a non-technological invention dictates a finding that a claim of the patent is invalid. This case, however, involves a heavy overlap between the CBM institution decision and the final decision on the merits. In its challenge to the Board’s institution decision, Ameranth makes the same arguments that it also makes in its challenge to the Board’s final patentability determination. It makes the same arguments in both phases regarding the claim limitations of “synchronization” and “manual modification” (*compare* Am. Br. at 23, 25 *with id.* at 31-33, 46-51), and it makes the same arguments with respect to the “hierarchical menus” and “displayability” limitations. *Compare* Am. Br. at 24 *with id.* at 38-41). As Ameranth itself notes, its institution-phase challenge is inextricably “intertwined” with an obviousness inquiry (Am. Br. at 21 n.13)—which itself is “analogous” to the *Alice* step two inquiry. *Internet Patents*, 790 F.3d 1347.²

² The overlap in the two inquiries also is reflected in Ameranth’s insistence that the Board’s final written decision “reversed course” from the Board’s institution decision. Am. Br. at 20, 35.

As was the case with the reexamination statute in *Hiniker*, the CBM statute directs this Court's review to the Board's final decision on the merits. *See* 35 U.S.C. § 329; 35 U.S.C. § 141(c); *Hiniker*, 150 F.3d at 1367. Because the Board's final written decision reevaluates the same issue that is decided in the institution-phase "technological invention" inquiry, any error in that preliminary institution inquiry is "washed clean" by the final written decision, *Hiniker*, 150 F.3d at 1367, and the institution decision is thus not subject to further review. *See id.*

Two unique features of CBM review make application of the *Hiniker* doctrine particularly appropriate to these proceedings. Unlike in a reexamination proceeding, the patent owner and the challenger in a CBM review are entitled to post-institution discovery. *See* 35 U.S.C. § 326(a)(5). Each is entitled, for example, to depose the other's declarants. *See id.*; *USPTO Patent Trial Practice Guide*, 77 Fed. Reg. 48,756, 48,757 (Aug. 14, 2012). This additional evidence is then considered in the parties' post-institution response and reply. *See* 35 U.S.C. § 326(a)(8), (12). Thus the very structure of CBM review contemplates that the institution decision is truly only preliminary, and that the final decision on the merits will be made on a more complete record. If the Board's final written decision was in error, Ameranth will still obtain the relief that it seeks: reversal of the Board and restoration of its claims. And if

the Board’s final decision was correct, there is no need to relitigate the preliminary decision to institute the proceeding, because “[a] proper petition undisputedly could have” presented a meritorious case. *Versata II*, 793 F.3d at 1322; *see also Cuozzo*, 793 F.3d at 1274 (“[t]he fact that the petition was defective is irrelevant because a proper petition could have been drafted”).

Additionally, this Court has held that the USPTO is entitled to “substantial deference” in its application of the regulations defining the scope of CBM Review. *Versata II*, 793 F.3d at 1325. But while the Board thus receives deference in its institution-phase “technological invention” determination, it receives no deference for its legal interpretation of the *Alice* framework in a final written decision. *See id.* at 1336. Conducting back-to-back review of both the “technological invention” question and the *Alice* step two inquiry under their different review standards in the same proceeding thus creates the possibility that the same evidence will require affirmance of the Board’s answer to the same question in one part of the proceeding—and reversal in another. Precluding review of preliminary questions that are considered again in the Board’s final written decision avoids such awkward results.

Finally, to the extent that this Court disagrees with the Director and concludes that the Board’s institution-phase “technological invention” determination is reviewable independently of the Board’s final merits decision,

the Director contends that the '733 patent fails to recite a technological invention (and is thus eligible for CBM review) for the same reasons that it fails to satisfy step two of the *Alice* framework (and is ineligible for patenting), as presented in the next sections of this brief.

In its challenge to the Board's institution decision, Ameranth also cites what it characterizes as "voluminous objective evidence of non-obviousness." Am. Br. at 21; *see also id.* at 22-23.³ In order for such evidence to demonstrate nonobviousness, the patentee must show a nexus between these objective indicia and "the unique characteristics of the claimed invention." *In re Applied Materials, Inc.*, 692 F.3d 1289, 1299 (Fed. Cir. 2012). Because Ameranth does not cite *any* feature of the claimed invention in its argument, it fails to show that its secondary evidence has a nexus to patentable features of the claimed invention. *See id.*

C. Because the Board Agreed with the Substance of Ameranth's Proposed Claim Constructions, Ameranth Can Identify No Error in the Board's Claim Constructions

1. The Board Agreed that the Claims Require "Synchronizing" Data Between Devices

Ameranth argues that the Board erred by failing to read the claim preamble's reference to "synchronization" as limiting, and that it erred by failing

³ Ameranth does not cite this type of evidence in its challenge to the Board's final written decision.

to define “central processing unit” as a device that provides “synchronized” menus across different devices. Am. Br. at 31-35. The Board *agreed*, however, that the claims require synchronization of menus across devices. *See, e.g.*, A32 (“Claim 4 also recites that the application software functions to synchronize the second menu between the data storage device and another computing device.”); *see also* A35; A38. The Board then expressly considered whether the recited synchronization satisfies step two of the *Alice* framework. A32; A35-36; A38-39. It concluded that synchronization is conventional activity that does not transform the claimed invention into patent-eligible subject matter. A32-33; A36; A39.

While the Board found that the preambles are not limiting, it did so because it concluded that they “do not recite any structural components not already captured in the body of the claim.” A16. Similarly, although the Board did not construe the bare term “central processing unit” to require synchronization, it nevertheless concluded that other parts of the claims require synchronization. That the Board relied on claims 4, 5, and 12’s *express* references to synchronization in their final paragraphs (*see* A66, col.16, l.40; A67, col.17, l.11; A67, col.18, l.17), rather than on the claims’ preambles or the term “central processing unit,” does not alter the substance of the Board’s claim construction, or suggest any material disagreement between the Board and

Ameranth's claim interpretation. Much less does it suggest any reversible error in the Board's claim construction.

2. The Board Agreed that Claim 1 Requires a Hierarchical Tree Structure

Ameranth contends that the Board erroneously concluded that the claims do not require menus displayed in a hierarchical tree format. Am. Br. at 26-30. The Board made clear, however, that it construed claim 1 to recite a "first menu [that] is displayable in a hierarchical tree format." A27. The Board then analyzed whether displaying menus in a hierarchical tree format is more than routine or conventional activity, and concluded that it is not. A27-28.

Ameranth faults the Board's conclusion that claim 1 does not include a "linked levels" feature or "multi-tiered levels of components." Am. Br. at 29 (citing A20); Am. Br. at 38 (citing A30). The Board adopted the construction "hierarchical" because claim 1 actually uses the term "hierarchical tree format" (A66, col.6, ll.4-5), but does not employ the terms "linked levels" or "multi-tiered components." Nor does Ameranth point to any difference in meaning between "hierarchical tree format" and the terms "linked levels" or "multi-tiered components." Indeed, Ameranth itself treats the terms as interchangeable. *See, e.g.*, Am. Br. at 27 (citing "the requirement that menus as claimed are hierarchical, *i.e.*, including 'linked levels' of options"). Because Ameranth apparently agrees that these terms mean the same thing, it can identify no

reversible error in the Board’s decision to employ the term “hierarchical” (the actual language of the claim) rather than the terms “linked levels” or “multi-tiered components.”

Finally, Ameranth alleges that the Board erred by failing to consider claim constructions previously adopted by a district court. Am. Br. at 26, 27 n.18. The Board did, however, consider the district court’s claim constructions. *See* A13-14; A20.⁴ In addition, Ameranth fails to explain how the district court’s claim constructions differ in substance from those made by the Board—much less explain how any such differences led to reversible error.

D. The Board Correctly Determined that Claims 1, 2, 4, 5, 10, and 12 Do Not to Recite Patent-Eligible Subject Matter

1. The Board Correctly Determined that Ordering Food Is an Abstract Human Activity

Applying step one of the Supreme Court’s *Alice* framework, the Board concluded that the ’733 patent’s claims “are directed to the abstract idea of

⁴ Although the Board must consider district-court claim constructions that are asserted before it by the parties, “[t]here is no dispute that the [B]oard is not generally bound by a prior judicial construction of a claim term.” *Power Integrations, Inc. v. Lee*, 797 F.3d 1318, 1326 (Fed. Cir. 2015); *see also In re Trans Texas Holdings Corp.*, 498 F.3d 1290, 1297 (Fed. Cir. 2007) (noting that “[i]ssue preclusion [against the PTO] is not warranted . . . [when] the PTO was not a party to the earlier litigation”). Nor would binding the Board to previous district-court claim constructions appropriately account for the Board’s often superior understanding of a technology. *Cf. Jack Gutman, Inc. v. Kopykake Enters., Inc.*, 302 F.3d 1352, 1361 (Fed. Cir. 2002) (noting that the district court itself may “revisit[] and alter[] its interpretation of the claim terms as its understanding of the technology evolves”).

generating a second menu from a first menu and sending the second menu to another location.” A26. Ameranth does not dispute that ordering food at a restaurant is one of those quintessentially human activities that is abstract “as [the Supreme Court] ha[s] used that term.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2357 (2014). This Court recently catalogued its own cases applying *Alice*, and noted that the abstract-idea category has been found to encompass methods of credit verification and management, tax reduction strategies, generating lists of tasks to be performed, carrying out commercial transactions, and gambling. *See Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1368 n.2 (Fed. Cir. 2015). Like generating lists of tasks, generating menus to facilitate ordering food “is not meaningfully different from the ideas found to be abstract” in other cases “involving methods of organizing human activity.” *Id.* at 1367.

Before the Board, Ameranth argued that the ’733 patent constitutes far less of a business-method patent than that upheld by this Court in its decision in *Ultramerical, LLC v. Hulu, LLC*, 722 F.3d 1335, 1350 (Fed. Cir. 2013) (“*Ultramerical II*”), *vacated and remanded, WildTangent, Inc. v. Ultramerical, LLC*, 134 S. Ct. 2870 (2014). A1526-27. Ameranth contended that *Ultramerical II* requires a “focus on the transformation of a general purpose computer into a special purpose computer via programming to perform

particular functions.” A1527. Ameranth reprises the argument in this Court, contending that the ’733 patent’s claims are patent eligible because they “recite[] the conversion of analog human input into a digital machine transformation of a computerized menu,” and that “[t]his is the epitome of transformation and nonabstractness.” Am. Br. at 55; *see also id.* at 36.

This Court has made clear, however, that “not all transformations or machine implementations infuse an otherwise ineligible claim with an inventive concept.” *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014) (citation omitted). In particular, “recitation of generic computer limitations does not make an otherwise ineligible claim patent-eligible”—“[t]he bare fact that a computer exists in the physical rather than purely conceptual realm is ‘beside the point.’” *Id.* (quoting *Alice*, 134 S. Ct. at 2358). In its subsequent and final decision in the *Ultramerical* litigation, this Court also made clear that “[a]ny transformation from the use of computers or the transfer of content between computers is merely what computers do and does not change the [patent-eligibility] analysis.” *Ultramerical, Inc. v. Hulu, LLC* (“*Ultramerical III*”), 772 F.3d 709, 717 (Fed. Cir. 2014).

The mere fact that the ’733 patent’s invention uses a computer to transform and transfer data is insufficient to remove the claims from the realm of abstract ideas. To the extent that Ameranth contends that the claims’ recited

“synchronization” is more than generic computer use and thus imparts patent eligibility (Am. Br. at 36), that argument is considered in the next section, which addresses step two of the *Alice* test. *See Ultramercial III*, 772 F.3d at 715 (“any novelty in implementation of the idea is a factor to be considered only in the second step of the *Alice* analysis”).

2. The Board Reasonably Determined that the Claims Recite Only Conventional Computer Technology

a. The Board Properly Applied Its Background Knowledge and Expertise to Find that the Recited Technology Is Conventional

The Board found that the disputed limitations of claims 1, 2, 4, 5, 10, and 12—computers and graphical user interfaces, hierarchical tree structures, and manually modifying, synchronizing, and printing a menu—recite only the use of routine and conventional computer technology. A27-41.

The Board appropriately employed its own background knowledge and expertise to apply step two of the *Alice* framework. Courts conducting the *Alice* analysis routinely rely on the common knowledge that some computer functions are generic. In *Alice Corp.* itself, the Supreme Court cited this Court’s notice of the “ubiquity of computers,” *Alice*, 134 S. Ct. at 2358 (citing *CLS Bank Int’l v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269, 1286 (Fed. Cir. 2013) (Lourie, J., concurring))—and took its own judicial notice of the fact that “the use of a computer to obtain data, adjust account balances, and issue automated

instructions” are “well-understood, routine, [and] conventional” functions of computers. *Id.* at 2359.

This Court, too, relies on its own background knowledge to identify those computer functions that are routine and conventional. *See, e.g., OIP Techs. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015) (finding that sending and storing data and estimating values on a computer are all “well-understood, routine, [and] conventional activities”) (quoting *Alice*, 134 S. Ct. at 2359); *Intellectual Ventures*, 792 F.3d at 1370 (noting that an “interactive interface” limitation “simply describes a generic web server with attendant software” and is a “generic computer element”).⁵

Finally, the Patent Trial and Appeal Board is particularly suited to applying its own expertise to identify those computer functions that are conventional and generic. The Patent Act expressly provides that “administrative patent judges shall be persons of competent legal knowledge and scientific ability,” 35 U.S.C. § 6(a), and USPTO rules specify that the examining

⁵ *See also Ultramercial III*, 772 F.3d at 717 (“[a]ny transformation from the use of computers or the transfer of content between computers is merely what computers do and does not change the [*Alice*] analysis”); *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) (“[t]hat a computer receives and sends [particular] information over a network—with no further specification—is not even arguably inventive”).

corps must have a scientific education.⁶ Given these requirements, it is unsurprising that courts have recognized the technical expertise of the USPTO’s examiners and administrative patent judges. *See, e.g., Kappos v. Hyatt*, 132 S. Ct. 1690, 1700 (2012) (noting that “the PTO has special expertise in evaluating patent applications”).⁷

The Board thus appropriately exercised its own judgment to identify those computer operations that are routine and conventional within the meaning of step two of the *Alice* framework. The next section discusses additional factors that confirm the reasonableness of the Board’s findings.

b. The ’733 Patent’s Statements About the Prior Art, and Its Lack of an Alternative Enabling Disclosure, Provide Substantial Support for the Board’s Conclusion that the Recited Technology Is Conventional

The ’733 patent’s specification states that “[t]he preferred embodiment of the present invention uses typical hardware elements in the form of a computer workstation, operating system and application software elements which configure the hardware elements for operation in accordance with the present

⁶ *See* <http://www.uspto.gov/web/offices/pac/exam.htm#req>.

⁷ *See also In re Moore*, 444 F.2d 572, 574 (CCPA 1971) (acknowledging “the technical expertise of the individual members of the [now Patent Trial and Appeal] [B]oard in making findings of technical fact based upon their own knowledge and experience”); *In re Ahlert*, 424 F.2d 1088, 1092 (CCPA 1970) (noting the “specialized technical expertise of Patent Office examiners”).

invention.” A61, col.6, ll.47-52. It states that “[t]he workstation hardware is configured by software including an operating system, e.g., Windows® 95, 98, NT or CE, networking software (including internet browsing software) and application software components.” A61, col.6, ll.59-62. The specification also notes that the “[t]he software applications for performing the functions falling within the described invention can be written in any commonly used computer language,” and that “[t]he discrete programming steps are commonly known and thus programming details are not necessary to a full description of the invention.” A64, col.12, ll.60-65.

Ameranth contends that generating a menu is not conventional, and that it is performed by application software rather than a graphical user interface. Am. Br. at 44-45. Similarly, Ameranth alleges that application software, rather than prior-art Windows® graphical user interfaces, perform the recited transmission and synchronization functions. Am. Br. at 47-48.

The '733 patent's own specification, however, provides substantial support for the Board's conclusion that menu generation—selecting and adding menu categories and assigning parameters to items—are conventional activities. A28; A32; A35. The specification describes the prior-art Windows® operating systems as “common [graphical user interface] operating systems that provide [an] ‘object oriented’ environment for personal computer users.” A61, col.6,

ll.21-22. It notes that these graphical user interfaces “allow users to manipulate their data as they would physical entities.” A61, col.6, ll.13-14. “For example, a window can represent a file and the contents of the window can represent the records of the file.” A61, col.6, ll.15-16. “The records of the file can be created, deleted, modified, and arranged in a drag-and-drop fashion as if they also were physical objects.” A61, col.6, ll.18-20. Finally, the specification notes that “[t]he discrete programming steps” for implementing the invention “are commonly known and thus programming details are not necessary to a full description of the invention.” A64, col.12, ll.60-65.

The ’733 patent’s specification also provides support for the Board’s conclusion that transmission and synchronization of data are conventional computer functions. A28-29; A32-33; A36; A38-39. The specification notes that “Windows CE® provides . . . built-in synchronization between handheld devices, internet and desktop infrastructure.” A64, col.12, ll.15-18.

The Board was entitled to rely on the specification’s characterization of the prior art. This Court, too, has relied on a patent specification’s statements that particular computer functionality is “conventional,” “well-known,” and “common” when applying step two of the *Alice* framework. *Internet Patents*, 790 F.3d at 1348.

The '733 patent's failure to describe any non-prior art means for carrying out "menu generation" and data synchronization also supports the Board's conclusion that these are routine computer operations. This Court has noted that when a patent "describes [a technological] effect or result dissociated from any method by which [the result] is accomplished," this reinforces the conclusion that the claim is directed to an abstract idea rather than to eligible subject matter. *Internet Patents*, 790 F.3d at 1348. The Board's conclusion that the '733 patent's recited computer functions are routine and conventional are thus reasonably supported where, as here, the patent's own specification confirms that it relies on existing technology and "commonly known" programming techniques, and the specification discloses no other means for executing its computerized functions.

3. Ameranth's Remaining Arguments Are Unavailing

a. To the Extent that "Bi-Directional" Communication Differs from Synchronization, Ameranth's Argument Is Waived

The Board found that the '733 patent's claims require "synchroniz[ing]" data between devices, and that the specification's disclosure that existing operating systems provide "built in synchronization between handheld devices, internet and desktop infrastructure" indicates that the technology for synchronizing data is conventional. A32; A35-36; A34-35 (citing A64, col.12, ll.15-18). Ameranth asserts that the Board erred because it only found that data

is communicated in one direction, and that the claimed invention requires data to be transmitted in both directions. Am. Br. at 36, 46.

Ameranth's claims use the term "synchronized" or "synchronizing," not the words "both directions" or "bi-directional." A66, col.16, l.49; A67, col.17, l.11; A67, col.18, l.17. In support of its "bi-directional" argument, Ameranth cites passages from its specification. Am. Br. at 36, 46 (citing A59, col.2, ll.29-40, A64, col.12, ll.52-53). These cited passages describe keeping devices "in synch," and ensuring that when changes are communicated to one device, that device "then synchronizes with all the wireless handheld devices." A64, col.12, ll.52, 55-56. Thus both the claims and the specification refer to "synchronization," not "bi-directional" communication. In addition, to the extent that Ameranth contends that "bi-directional" or "both directions" communication means something other than synchronization, the argument was never presented in Ameranth's patent owner response in the proceedings below, and is thus now waived. *See In re Baxter*, 678 F.3d 1357, 1362 (Fed. Cir. 2012).

b. "Displayability" on a Second Device Is Implicitly Identified by the Specification as Conventional and Lacks an Enabling Disclosure

Ameranth contends that its technology is not conventional because it requires that a transmitted menu be "displayable" on the receiving device. Am. Br. at 40-41. In the proceedings below, Ameranth argued that

displayability on the second device is implicit—that it is “clear from the structure of the claims,” because without displayability, “there would be no way to make a manual modification.” A1511. This may be so, but if displayability is implicit in the claims’ recited synchronization function, it is also implicit in the prior art’s disclosure of the same synchronization function. Ameranth cannot contend that the claims’ recitation of “synchronization” implies displayability, but that the prior art’s disclosure of “built in synchronization between handheld devices, internet and desktop infrastructure” (A64, col.12, ll15-18), does not imply the same thing. Nor does Ameranth identify any place in the specification that describes how to enable the “displayability” function other than through prior-art technology. To the extent that “displayability” on a second device is claimed, the Board reasonably concluded that it is an implicit feature of conventional technology that allows synchronization of data between computer devices.

c. The Board Reasonably Concluded that “Manual Modification” Is Conventional

The Board found that “manual modification” of a menu is conventional activity. A29; A33; A36; A39. It cited the specification’s admission that it was “known to use pen and paper in the hospitality industry” (A29; A33; A36; A39 (citing A59, col.1, ll.27-35)), and it cited a passage from the petitioners’ reply brief describing a prior art patent as disclosing that “[t]echnology for ‘manually

modifying'/editing on a handheld computer was old and well-known art at the time of the '733 patent." A29; A33; A36; A39 (citing A1615-1616).

Ameranth argues that the Board erred by finding that "manual modification" of a menu can be met solely by writing on a paper menu, and cites passages of its specification that describe making a modification via handwriting capture on an electronic screen. Am. Br. at 48-50 (discussing A57, figure 8, and its accompanying written description at A60, col.3, ll.51-64).

The Board cited both the specification's discussion of writing by hand on paper, and the petitioners' evidence that editing on a handheld computer is well known, to support its conclusion that "manual modification" of a document is a conventional activity. Writing on paper or editing on a computer "is not even arguably inventive." *buySAFE*, 765 F.3d at 1355.

Ameranth asserts that the claims are directed to electronic handwriting capture, but that is not what the claims at issue recite. Claims 1, 5, and 12 contain only a bare recitation that the second menu is "manually modified" after generation. Claim 4 additionally recites that the menu is "manually modified by handwriting or voice recording." A66, col.16, ll.52-53. Claim 4 thus identifies "handwriting" as one of the ways of effecting "manual modification." This confirms that handwriting alone meets the "manual modification" limitation.⁸

⁸ Claims 2 and 10 depend from claim 1 and claims 4 and 5, respectively.

The electronic handwriting capture that Ameranth cites, which is described in the specification's figure 8, is expressly claimed in dependent claims 6 and 13.⁹ These claims add the limitation "wherein the manual modification involves handwriting capture." A67, col.17, ll.15-16; A67, col.18, ll.23-34. These dependent claims' express recitation of manual modification via handwriting capture further confirms that claims 1, 2, 4, 5, 10, and 12, which contain only a general reference to "manual modification," are not limited to handwriting capture. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed. Cir. 2005) ("the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim").

The Board reasonably determined that the disputed claims' recitation of "manual modification" of a document describes only conventional and routine activity.

d. The Board Reasonably Determined that Printing on a Printer Is Conventional

The Board, citing disclosures in the specification (A40 (citing A59, col.2, ll10-11)), found that claims 2 and 10's recitation of having a menu "selectively

⁹ Claims 6 and 13 are claims that the Board determined had *not* been shown to be unpatentable, and thus they are not a subject of Ameranth's appeal.

printed on any printer directly from the graphical user interface” of a handheld device describes only “insignificant post solution activity.” A40.

Ameranth notes that allowing printing from any printer provides restaurant staff with the convenience of printing from the nearest printer. Am. Br. at 59. It contends that “[t]his claimed operational ‘convenience’ was not ‘abstract’ to a restaurant server—who could avoid walking great distances in a crowded restaurant to obtain a paper receipt nearest to their location.” *Id.*

This may be so—and for a time, the Patent Act *was* understood to make eligible for patenting any use of a computer to produce a “useful, concrete, and tangible result.” *DDR Holdings*, 773 F.3d at 1255 (quoting *State St. Bank & Trust Co. v. Signature Fin. Grp., Inc.*, 149 F.3d 1368, 1373 (Fed. Cir. 1998)). It is now clear, however, that “recitation of generic computer limitations does not make an otherwise ineligible claim patent-eligible.” *Id.* at 1256; *see also Intellectual Ventures*, 792 F.3d at 1370 (“merely adding computer functionality to increase the speed or efficiency of the process does not confer patent eligibility on an otherwise abstract idea”). Because Ameranth alleges no error in the Board’s finding that printing a document from a graphical user interface is routine and conventional, the Board’s conclusion that this limitation does not impart patent eligibility should be affirmed.

E. The Board Properly Determined that the Petitioners Failed to Meet Their Burden of Showing that Claims 3, 6-9, 11, and 13-16 Are Unpatentable

1. The Petitioners Presented No Evidence or Argument that the Claims' Recited Technology Is Routine and Conventional

Dependent claims 3 and 11 include the additional limitation that “the modified second menu can be linked to a specific customer at a specific table directly from the graphical user interface of” a hand-held or other computing device. A66; A67. Claims 6 through 9 and claims 13 through 16 include the additional limitations that the manual modification of the second menu is implemented via handwriting capture, handwriting recognition and conversion to text, voice capture, or voice recognition and conversion to text. A67.

The Board found that the petitioners failed to meet their burden of showing that these additional limitations require only routine and conventional technology. A42; A43.

Before the Board, Ameranth asserted that the '733 patent's dependent claims “include additional and independently unique inventive elements.” A1515. In particular, Ameranth asserted that “linking a particular order to a particular customer at a table was novel then and unique to mobility and wireless handhelds.” A1530. Ameranth also argued that claims 6 through 9 and claims 13 through 16 “recite particular kinds of manual modification,” and quoted statements in the press made by the petitioners that, according to

Ameranth, confirm the novelty of the recited technologies. A1530. Because Ameranth presented separate arguments for the patentability of these dependent claims, the Board was required to consider them individually rather than treat the independent claims as representative. *See Content Extraction and Transmission LLC v. Wells Fargo Bank, N.A.*, 776 F.3d 1343, 1348 (Fed. Cir. 2014).

The entirety of the petitioners' reply to Ameranth with respect to these dependent claims consisted of two sentences. First, the petitioners asserted that the claims' additional "elements are, at most, insignificant extra-solution activity that cannot save subject matter from patent ineligibility." A1619. The petitioners also argued that "'linking a particular order to a particular customer at a table' and 'manual modification' are classic examples of manual tasks that cannot be rendered patent-eligible merely by performing them with a computer." *Id.*

The petitioners' first sentence is merely a conclusion that is unaccompanied by any evidence or analysis. It did not satisfy the petitioners' burden of showing that the challenged claims are unpatentable. *See* 35 U.S.C. § 326(e) ("the petitioner shall have the burden of proving a proposition of unpatentability by a preponderance of the evidence"); *Dynamic Drinkware, LLC v. National Graphics, Inc.*, 800 F.3d 1375, 1378-79 (Fed. Cir. 2015).

The petitioners’ second statement—that the claimed operations could be performed manually, without a computer—is directed only to the first step of the *Alice* inquiry. See *CyberSource v. Retail Decisions, Inc.*, 654 F.3d 1366, 1371 (Fed. Cir. 2011) (noting that “methods which can be performed mentally, or which are the equivalent of human mental work, are unpatentable abstract ideas”). The fact that a process *can* be executed without a computer, however, does not address the second step of the *Alice* inquiry: whether the process’s *actual* implementation on a computer requires nonobvious technologies. *All* computer technology has been, within living memory, new and unconventional. The fact that it could always implement mental processes has not forever rendered it patent ineligible. See *Alice*, 134 S. Ct. at 2354 (“an invention is not rendered ineligible for patent simply because it involves an abstract concept”).

The petitioners failed to present any evidence or analysis showing that the technology recited in claims 3, 6-9, 11, and 13-16 is routine and conventional. They failed to make their case under *Alice*. The Board thus properly determined that they had not met “the[ir] burden of proving a proposition of unpatentability by a preponderance of the evidence.” 35 U.S.C. § 326(e).

2. The Petitioners’ New Arguments Were Never Presented to the Board and Are Now Waived

In this Court, the petitioners present several new arguments that the technology recited in claims 3, 6-9, 11, and 13-16 is routine and conventional.

The petitioners contend that prior art patents, admissions in the '733 patent's specification, and the specification's lack of a non-prior art enabling disclosure demonstrate that the recited technology is pre-existing and generic. Because none of these arguments was presented below, they are now waived. *See Baxter*, 678 F.3d at 1362.

These new arguments also suffer from other deficiencies. The petitioners quote passages of the '733 patent's specification that they contend contemplate the use of existing technology to implement handwriting and voice capture. Pet. Br. at 35-36. The petitioners cite a passage that notes, with respect to the handwriting capture illustrated by figure 8, that "the operator screen on the hand-held [device] can capture handwritten information specific to a customer's requests directly on the touch-sensitive screen." A60, col.3, ll.58-60. The petitioners also cite a passage that describes how "a server taking a drink order could select from a menu of her hand-held device's screen 'Iced Tea,' and then record the voice message 'with lemon' using her hand-held device integral microphone." A60, col.4, ll.18-22.

These passages simply describe the intended functioning of the claimed invention. They nowhere state that the technology for implementing handwriting and voice capture is pre-existing. In contrast, for example, to the passages of the specification that the Board relied on to establish that graphical

user interfaces and data synchronization are conventional (A31; A32), nothing in these passages identifies commercially available software that implements the claimed functions.

Moreover, again, these passages from specification were never cited to the Board. The Board's administrative patent judges "are not like pigs, hunting for truffles buried in the record." *Gross v. Town of Cicero*, 619 F.3d 697, 702 (7th Cir. 2010). It is the petitioners who bore the burden of marshalling information to make their case.

The petitioners also contend that nothing in the '733 patent's specification describes non-prior art means for implementing handwriting and voice capture or linking customers' locations to their orders. Pet. Br. at 35-37, 42. They appear to argue that such a gap *compels* a finding that the recited technology is ineligible.

As discussed in section IV.D.2.b of this brief, *supra* at pp. 27-30, when the Board's background knowledge indicates that a recited computer function is conventional and routine, the specification's failure to describe a non-prior art means for implementing the function can confirm that finding. *See, e.g., Internet Patents*, 790 F.3d at 1348. The absence of an enabling disclosure, however, does not *require* the Board to conclude that a recited technology is conventional. A claim may recite eligible subject matter and yet simply fail to

satisfy the requirements of § 112(a). Claims directed, for example, to a machine for time travel, or to a process for transforming lead into gold, are patent eligible, despite the fact that their accompanying specifications have (so far) failed to describe a means for enabling these inventions. A lack of enablement does not compel a finding that a claim fails *Alice*'s step two.

Finally, the petitioners assert that they *did* cite a prior-art patent before the Board that they contend demonstrates the conventionality of handwriting capture and conversion, as well as linking an order to a customer's location. Pet. Br. at 37-38, 42 (discussing U.S. Patent No. 4,972,496). This patent was cited in the petitioner's reply before the Board, but only with respect to the independent claims' broad recitation of "manually modifying" a document on a handheld computer. A1614-1616. It was not cited in the portion of the reply that addresses the dependent claims, nor was it described in the reply as disclosing the conventionality of handwriting recognition or conversion or linking orders to locations. Because this evidence was never cited in relation to the disputed limitations, the argument is now waived. *See Baxter*, 678 F.3d at 1362.

V. CONCLUSION

For the foregoing reasons, this Court should affirm the Board's determination that claims 1, 2, 4, 5, 10, and 12 of the '733 patent recite ineligible subject matter, and its determination that the petitioners failed to demonstrate that claims 3, 6-9, 11, and 13-16 recite only conventional technology.

Respectfully submitted,

October 29, 2015

/s/Joseph Matal

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CERTIFICATE OF SERVICE

I hereby certify that on October 29, 2015, I electronically filed the foregoing CORRECTED BRIEF FOR INTERVENOR—DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE using the Court's CM/ECF filing system. Counsel for appellant and appellee were electronically served by and through the Court's CM/EMF filing system per Fed. R. App. 25 and Fed. Cir. R. 25(a) and 25(b).

/s/ Joseph Matal

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RULE 32(a)(7)(C) CERTIFICATE OF COMPLIANCE

I certify pursuant to Fed. R. App. Proc. 32(a)(7) that the foregoing CORRECTED BRIEF FOR INTERVENOR—DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE complies with the type-volume limitation required by the Court’s rule. The total number of words in the foregoing brief is 10,249 words as calculated using the Word® software program.

/s/ Joseph Matal

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