Nos. 22-1762, 23-2029

United States Court of Appeals for the Federal Circuit

ARENDI S.A.R.L.,
Plaintiff-Appellant
v.

OATH HOLDINGS INC., OATH INC.,
Defendants-Appellees

Appeal from the United States District Court for the District of Delaware in Case No. 13-cv-00920, Chief Judge Leonard P. Stark

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ARENDI S.A.R.L.,
Plaintiff-Appellant

APPLE INC.,
Third-Party Defendant

v.

GOOGLE LLC,
Defendant-Appellee

Appeal from the United States District Court for the District of Delaware in Case No. 13-cv-00919, Judge Jennifer L. Hall

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RESPONSE BRIEF OF DEFENDANT-APPELLEE GOOGLE LLC

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July 17, 2024

U.S. Patent No. 7,496,854 Claim 93

A method for assisting a computer operator to retrieve information from a database that is related to text in a document, the method comprising the steps of:

(1) using a first computer program to analyze the document, without direction from the operator, to identify text in the document that can be used to search for related information,

(2) using a second computer program and the text identified in step (1) to search the database and to locate related information, and

(3) inserting the information located in step (2) into the document.

U.S. Patent No. 7,917,843 Claim 1

A computer-implemented method for finding data related to the contents of a document using a first computer program running on a computer, the method comprising:

displaying the document electronically using the first computer program;

while the document is being displayed, analyzing, in a computer process, first information from the document to determine if the first information is at least one of a plurality of types of information that can be searched for in order to find second information related to the first information;

retrieving the first information;

providing an input device, configured by the first computer program, that allows a user to enter a user command to initiate an operation, the operation comprising (i) performing a search using at least part of the first information as a search term in order to find the second information, of a specific type or types, associated with the search term in an information source external to the document, wherein the specific type or types of second information is dependent at least in part on the type or types of the first information, and (ii) performing an action using at least part of the second information;

in consequence of receipt by the first computer program of the user command from the input device, causing a search for the search term in the information source, using a second computer program, in order to find second information related to the search term; and

if searching finds any second information related to the search term, performing the action using at least part of the second information, wherein the action is of a type depending at least in part on the type or types of the first information.

U.S. Patent No. 7,921,356 Claim 2

At least one non-transitory computer readable medium according to claim 1, wherein the instructions establish processes wherein:

when the information source does not include the search term, the action comprises causing indication to the user that the information source does not include the search term.

Claim 1

At least one non-transitory computer readable medium encoded with instructions which, when loaded on a computer, establish processes for contact information handling, implemented by a document editing program running in the computer, the processes comprising:

allowing a user to enter textual information into a document using the document editing program;

displaying the textual information in the document electronically using the document editing program;

allowing, in the document editing program, the user to select in the document at least a portion of the textual information while the textual information is displayed;

following user selection of textual information in the document, analyzing, by the document editing program, the selected textual information to determine if the selected textual information is regarded by the document editing program as contact information and what type or types of contact information the selected textual information is;

providing an input device configured by the document editing program to allow the user to initiate an operation, such operation being of a type depending at least in part on the type or types of contact information of the selected textual information, the operation comprising identifying at least part of the selected textual information to use as a search term in order to find second information, of a specific type or types, associated with the search term in an information source external to the document;

after identifying at least part of the selected information to use as a search term, and in consequence of receipt by the document editing program of an execute command from the input device, performing the operation, wherein the operation further comprises:

causing an electronic search in the information source, by an information management program external to the document editing program, for the search term in order to find whether the search term is included in the information source; and performing an action having a type,

wherein the type of action depends at least in part on whether the search term is included in the information source, and if the search term is so included, and if the information source includes the second information, the action comprises causing insertion of at least part of the second information into the document.

U.S. Patent No. 8,306,993 Claim 1

A computer implemented method for information handling, the method comprising:

providing access to a contact database that can also be separately accessed and edited by a user and wherein the contact database includes at least three fields for storing contact information associated with each of one or more contacts, each of the at least three fields within the contact database being specific to a particular type of contact information selected from the group consisting of name, title, address, telephone number, and email address;

analyzing in a computer process textual information in a document configured to be stored for later retrieval to identify a portion of the document as first contact information, without user designation of a specific part of the textual information to be subject to the analyzing, wherein the first contact information is at least one of a name, a title, an address, a telephone number, and an email address;

after identifying the first contact information, performing at least one action from a set of potential actions, using the first contact information previously identified as a result of the analyzing, wherein the set of potential actions includes:

(i) initiating an electronic search in the contact database for the first contact information while it is electronically displayed in order to find whether the first contact information is included in the contact database; and

when a contact in the contact database includes the first contact information, if second contact information in the contact database is associated with that contact, electronically displaying at least a portion of the second contact information, wherein the second contact information is at least one of a name, a title, an address, a telephone number, and an email address;

(ii) initiating electronic communication using the first contact information; and

(iii) allowing the user to make a decision whether to store at least part of the first contact information in the contact database as a new contact or to update an existing contact in the contact database;

wherein the computer implemented method is configured to perform each one of action (i), action (ii), and action (iii) using the first contact information previously identified as a result of the analyzing; and

providing for the user an input device configured so that a single execute command from the input device is sufficient to cause the performing.

CERTIFICATE OF INTEREST

Counsel for Google certifies the following:

1. The full name of every party represented by me is:

   Google LLC

2. The names of the real parties in interest represented by me are:

   None other than Google LLC.

3. All parent corporations and any publicly held companies that own 10% or more of stock in the parties represented by me are:

   Alphabet Inc.; XXVI Holdings Inc.

4. The names of all law firms and the partners or associates that appeared for the parties now represented by me before the originating court or that are expected to appear in this court (and who have not or will not enter an appearance in this case) are:

   Potter Anderson & Corroon, LLP; Paul Hastings LLP; Arnold & Porter; Kaye Scholer LLP

   David E. Moore; Richard L. Horwitz; Bindu A. Palapura; Andrew L. Brown; Stephanie E. O'Byrne; Robert W. Unikel; John Cotiguala; Matt Lind; Andrea P. Roberts; Robert R. Laurenzi; Chad J. Peterman; Grayson Cornwell; Matthias A. Kamber; Marisa A. Williams; Jeffrey A. Miller; Michael J. Malecek; Timothy K. Chao; Nisha Agarwal; Robert S. Magee; Assad H. Rajani; Michelle K. Marek Figueiredo; Evan McLean; Ariell Bratton

5. The title and number of any case known to counsel to be pending in this or any other court or agency that will directly affect or be directly affected by this Court's decision in the pending appeal is:

   - *Arendi S.A.R.L. v. LG Electronics Inc., et al.*, 12-cv-1595-GBW (D. Del.)
   - *Arendi S.A.R.L. v. Blackberry Ltd., et al.*, 12-cv-1597-GBW (D. Del.)
   - *Arendi S.A.R.L. v. HTC Corp.*, 12-cv-1600-GBW (D. Del.)

- *Arendi S.A.R.L. v. Motorola Mobility LLC*, No. 1:12-cv-1601-JLH (D. Del.)
- *Arendi S.A.R.L. v. Sony Mobile Communications (USA) Inc.*, 12-cv-1602-GBW (D. Del.)
- *Arendi S.A.R.L. v. HTC America, Inc.*, 2:18-cv-1725-BJR (W.D. Wash.)

6. Organizational Victims and Bankruptcy Cases: Fed. R. App. P. 26.1(b) (organizational victims in criminal cases) and 26.1(c) (bankruptcy case debtors and trustees) are not applicable because this is not a criminal or bankruptcy case. *See* Fed. Cir. R. 47.4(a)(6).

N/A

DATED: July 17, 2024

By: /s/ *Ginger D. Anders*
Ginger D. Anders

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STATEMENT OF RELATED CASES

No appeal was previously taken in Arendi's suit against Google, No. 13-cv-919-JLH (D. Del.), or Arendi's suit against Oath, No. 13-cv-920-GBW (D. Del.).

The following pending cases are related and may be affected by the outcome of this appeal: *Arendi S.A.R.L. v. LG Electronics Inc., et al.*, 12-cv-1595-GBW (D. Del.); *Arendi S.A.R.L. v. Blackberry Ltd., et al.*, 12-cv-1597-GBW (D. Del.); *Arendi S.A.R.L. v. HTC Corp.*, 12-cv-1600-GBW (D. Del.); *Arendi S.A.R.L. v. Motorola Mobility LLC*, 12-cv-01601-JLH (D. Del.); *Arendi S.A.R.L. v. Sony Mobile Communications (USA) Inc.*, 12-cv-1602-GBW (D. Del.); and *Arendi S.A.R.L. v. HTC America, Inc.*, 2:18-cv-1725-BJR (W.D. Wash.).

In those related cases, Arendi has alleged infringement of three of the patents asserted against Google and Oath and at issue in this appeal: the '854, '843, and '993 patents.[1] As noted by Arendi, those cases and this appeal concern the construction of terms in the '843 and '993 patents and the invalidity of the '993 patent under 35 U.S.C. § 101. In addition, Google notes that those cases and this appeal concern the invalidity of the '843 patent under 35 U.S.C. §§ 101, 102, and/or 103; overlapping issues of noninfringement of the '843 patent; and/or the construction of and invalidity of the '854 patent under 35 U.S.C. §§ 101 and 112.

[1] Arendi asserted U.S. Patent Nos. 7,496,854 (the "'854 patent"), 7,917,843 (the "'843 patent"), and 8,306,993 (the "'993 patent") against Google and Oath. Arendi further asserted U.S. Patent No. 7,921,356 (the "'356 patent") against Google.

Counsel for Google is not aware of any other pending case that will directly affect or be directly affected by this appeal.

STATEMENT OF THE ISSUES

1. Whether final judgment in favor of Google on the ’843 patent should be affirmed on the ground that Arendi forfeited any challenge to the findings that the ’843 patent is invalid for anticipation and obviousness.

2. Whether the district court correctly held that the ’854, ’356, and ’993 patents claim ineligible subject matter under 35 U.S.C. § 101.

3. If this Court reaches the ’843 patent, whether judgment in Google’s favor on that patent should be affirmed on the alternative ground that the ’843 patent claims ineligible subject matter.

4. If this Court does not affirm on the above grounds, whether the district court correctly construed “document” (all asserted claims) to mean “a word processing, spreadsheet, or similar file into which text can be entered.”

5. If this Court reverses the ineligibility determination for the ’993 patent and reaches the construction of “while it is electronically displayed” (claims 1, 9, and 17 of the ’993 patent), whether the district court correctly construed that limitation to mean “while the first contact information is electronically displayed in the document.”

6. If this Court reverses the ineligibility determination for the '854 patent, whether the district court correctly held that claim 98 is indefinite.

INTRODUCTION

This appeal arises from a decade-long litigation in which Arendi asserted that numerous Google applications for smartphones and tablets infringed four patents: the '854, '843, '356, and '993 patents (the "Asserted Patents"). The Asserted Patents are generally directed to using conventional computer programs to allow users who have typed text into a document in one program to search for, retrieve, and use related information from a second program (*e.g.*, finding contact information associated with a typed name). The district court correctly held that three of the patents were directed to ineligible subject matter under Section 101—namely, the abstract concepts of analyzing and manipulating information. After a trial concerning the surviving '843 patent, the jury issued a complete defense verdict, finding that Arendi had failed to prove infringement and that Google had established by clear and convincing evidence that the '843 patent was invalid for anticipation and obviousness.

At that point, Arendi began attempting to avoid the jury's invalidity verdict—rather than challenging it on its merits—in an apparent effort to preserve the '843 patent for future litigation. After initially filing post-trial motions challenging the verdict on invalidity—but not noninfringement—Arendi changed course and urged

the district court *not* to decide its post-trial motions on invalidity, but to nonetheless strike invalidity as a ground supporting the judgment, so that the judgment would be based solely on noninfringement. The district court correctly refused that baseless request, which would have in effect vacated the invalidity verdict without any justification.

Before this Court, Arendi proceeds as though the district court *granted* its request. Arendi ignores the invalidity ground supporting the '843 judgment in Google's favor, challenging only the district court's noninfringement rulings and going so far as to mischaracterize the judgment as resting only on noninfringement. Br.7. But the judgment rests on invalidity as well as noninfringement. And because Arendi has failed to challenge invalidity on appeal, its noninfringement argument (based on construction of the term "document") provides no basis for disturbing the '843 judgment.

Arendi's remaining arguments are also easily dispensed with. The district court correctly held that the '854, '356, and '993 patents are ineligible under Section 101. The patents claim prototypical abstract ideas using conventional computer components to automate well-known processes. Should this Court address the '843 patent at all, it should hold that that patent is ineligible for the same reasons as the others. Because judgment in Google's favor as to all the Asserted Patents should be affirmed on forfeiture and/or Section 101 grounds, there is no need to

reach Arendi's ancillary claim construction and indefiniteness arguments. But in all events, the district court's rulings on those issues are correct. This Court should affirm.

STATEMENT OF THE CASE

I. Background

The '854, '843, and '356 patents share a specification and are in the same line of continuation patents originating from an application filed on November 10, 1998. The '993 patent has a similar specification but is from a different family. Because the '993 patent's subject matter significantly overlaps with that of the '843 patent, Arendi had to file a terminal disclaimer during prosecution of the '993 patent. All Asserted Patents expired in 2018.

The Asserted Patents generally describe allowing a user who is working in a document to more easily search for, retrieve, and use information from a separate source. For instance, a person writing a letter might want to retrieve the recipient's contact information. The specifications explain that in the word processor context, "[t]ypically," related information had to be "retrieved by the user from an information management source external to the word processor ... for insertion into the document." Appx189[2] (1:28-42); *see* Appx224 (1:32-49) (same). The

[2] For simplicity, Google cites to only one of the '854, '843, or '356 patents when referring to the specification shared across those patents.

specifications assert that the claimed invention "is a significant simplification relative to existing methods" because it allows users to retrieve and act on information in the separate source "directly from the word processor." Appx193 (9:50-60); *see* Appx229 (11:63-12:6) (same).

The representative claims identified by Arendi all generally recite: (1) identifying information (*e.g.*, a name) in a document; (2) searching for related information in a separate source (*e.g.*, a phone number in a contact database); and (3) using the found information, or lack thereof, in some way. The claims recite minor variations of those features. For example:

- Representative claim 93 of the '854 patent recites analyzing the document to identify text "without direction from the operator," and "inserting" related information into the document. Appx290 (17:25-28, 17:32-33).
- Representative claim 1 of the '843 patent recites analyzing the document to identify information to use for the search "while the document is being displayed." Appx193 (10:43-48).
- Representative claim 2 of the '356 patent specifies that when the search of the separate source does not return a hit, there is an "indication to the user that the information source does not include the search term." Appx261-262 (11:25-28).

- Representative claim 1 of the '993 patent specifies that the information identified in the document is "contact information," and the separate source is a "contact database." Appx230 (13:11-28). It also recites providing the user an "input device" to perform an action using the contact information, including initiating a search "while [the contact information] is electronically displayed" and then displaying found information to the user. Appx230 (13:29-58).

II. Accused Products

Arendi accused numerous Google products (the "Accused Products") of infringement, including apps such as Google Docs, Google Messages, and Gmail, as well as certain Android devices running preinstalled versions of the accused apps. Appx10120.

Depending on the release version, the Accused Products used one of five different functionalities that identified information in text (such as phone numbers or email addresses) and converted them into links: Linkify, Smart Linkify, Content Detectors ("CD"), Contextual Search Quick Actions ("QA"), or Smart Text Selection ("STS").

III. Procedural History

A. Pretrial proceedings

1. Arendi filed this suit against Google in May 2013. Appx165.[3] Google asserted several affirmative defenses, including that the Asserted Patents were directed to ineligible subject matter and invalid on various other grounds. The case was stayed for several years pending *inter partes* review ("IPR") proceedings, in which numerous claims of the '854 and '356 patents were canceled.[4] *See* Appx160-161; Appx156; Appx10000. The representative claims discussed above survived.

2. The district court held a *Markman* hearing in July 2019. Appx2; Appx40. As relevant here, the Court issued the following constructions:

- "document" (all Asserted Patents, all claims): "a word processing, spreadsheet, or similar file into which text can be entered," Appx10.

[3] On the same day, Arendi filed a separate suit asserting the '854, '843, and '993 patents against Oath. Appx6215. This Court has consolidated Arendi's appeals against Google and Oath. ECF 19. Arendi also filed suit against numerous other defendants, including Samsung, LG, Apple, Motorola, and Sony. Appx61. Some of those cases settled, and the remainder are stayed pending the outcome of this action.

[4] The PTAB also found numerous '843 claims to be unpatentable, but that decision was reversed. *See Arendi S.A.R.L. v. Apple Inc.*, 832 F.3d 1355 (Fed. Cir. 2016); *see* p. 29 n.10, *infra*.

- "while it is electronically displayed" ('993 patent, claims 1, 9, 17): "while the first contact information is electronically displayed in the document," Appx25.

The court also held that two limitations of '854 claim 98 were indefinite under 35 U.S.C. § 112 ¶6:

- "computer-readable medium including program instructions for ... using a first computer program to *analyze* the document, without direction from the operator, to identify text in the document that can be used to search for related information," Appx29.[5]
- "computer-readable medium including program instructions for ... *inserting* the information located in step (2) into the document," Appx31.

3. Google moved for judgment on the pleadings with respect to all Asserted Patents under Section 101. The district court granted the motion as to the '854, '356, and '993 patents, and denied it as to the '843 patent. Appx2703, Appx49-56.

'854, '356, and '993 patents. The court held at *Alice* step one that the claims were directed to an abstract idea: "identifying information in a document, searching for related information in a separate source, and using found information in some

[5] Emphases added throughout, unless noted otherwise.

way." Appx2816-2817 (114:18-115:9); Appx54-56. At *Alice* step two, the court held as a matter of law that the claims did not recite any inventive concept. Appx2819 (117:11-20).

'843 patent. The court held at step one that the claims were not directed to an abstract idea because they disclosed an improvement in computer functionality—what the court called "beneficial coordination"—wherein information from one program could be used in another program while the first program remained open. Appx2817-2820 (115:21-117:10, 118:21-22); Appx54-55.

3. In 2022, the court granted partial summary judgment of noninfringement as to the '843 patent. Appx70-73; Appx93-95. Relying on the construction of "document" as a file that must be "editable," the court held that Accused Products that used Linkify and Smart Linkify did not infringe because those functionalities cannot work on editable files. Appx71.

B. Trial and judgment on the '843 patent

Arendi proceeded to trial against Google on claims 23 and 30 of the '843 patent. After Arendi dropped its infringement allegations against Accused Products with CD or QA functionalities, the only Accused Products that remained for trial were those with STS functionality. *See* Appx10109; Appx10114.

On May 2, 2023, following a six-day trial, the jury returned a complete defense verdict, finding that Google had proven by clear and convincing evidence

that the '843 patent was invalid for both anticipation and obviousness and that Arendi had failed to prove infringement. Appx6171-6175. On May 10, 2023, the district court entered judgment following the verdict. Appx10221. Arendi then moved under Rules 50 and 59 for judgment as a matter of law or for a new trial as to invalidity. Appx10223; Appx10227. Arendi did not file any motion challenging the noninfringement verdict or dispute that therefore the judgment in Google's favor should stand regardless of the resolution of Arendi's post-trial invalidity motions. *See* Appx10227.

The district court accordingly asked the parties whether the court "can (or should or must) decline to address the merits of Plaintiff's validity arguments." Appx108 (ECF 608). In response, Arendi backtracked on its pending motions for post-trial relief, arguing that Google's affirmative defense of invalidity "became moot when the jury found non-infringement." Appx10255. Arendi thus asked the court to narrow the judgment to "clarify" that it would be based only on the jury's noninfringement finding. Appx10255; *see* Appx10263.

Google countered that courts have long held that an invalidity verdict is an independent basis for a no-liability judgment and is not "mooted" by a

noninfringement verdict.[6] Appx10259. It further explained that Arendi could not obtain vacatur of the invalidity verdict without satisfying the rigorous standards in Rule 50 or 59—yet, by requesting a narrowed judgment, Arendi was effectively urging the court to vacate the invalidity verdict *without deciding* Arendi's post-trial motions. Appx10259-10260.

The district court denied Arendi's post-trial invalidity motions without addressing the merits. Appx99. It also rejected Arendi's request to narrow the '843 judgment to only the jury's noninfringement finding. Appx98-99. The court emphasized that both noninfringement and invalidity pertained to Google's non-liability on Arendi's claim that Google had infringed the '843 patent. Accordingly, the court explained, "the final judgment will indicate that judgment on that claim should be entered in favor of Google." Appx99. The court warned that, to the extent Arendi's request to narrow the judgment "represent[ed] an attempt to limit what issues the parties can or must raise on appeal," "nothing in this order is intended to preclude either side from making whatever arguments on appeal ... they are required to make in order to preserve their arguments." *Id.* The court thus entered final

[6] Arendi never sought jury instructions or a verdict form that would have avoided findings on both noninfringement and invalidity. Appx10034; Appx10159; Appx10165; Appx10040; Appx10172.

judgment "in favor of Defendant and against Plaintiff on Plaintiff's claim of patent infringement of U.S. Patent No. 7,917,843." Appx1.

SUMMARY OF THE ARGUMENT

I. With respect to the '843 patent, Arendi has challenged only the grant of partial summary judgment of noninfringement, while entirely ignoring the second—and independent—ground on which the judgment in Google's favor rests: invalidity. Because Arendi has forfeited any challenge to the invalidity verdict, including any challenge to the district court's refusal to narrow the judgment to exclude invalidity, there is no basis for disturbing the judgment in Google's favor, notwithstanding Arendi's arguments concerning noninfringement. This Court should therefore affirm the judgment as to the '843 patent without reaching Arendi's noninfringement arguments.

II. With respect to the other three patents, the Court should affirm the district court's holding that the patents claim ineligible subject matter. Each representative claim bears all the hallmarks of abstractness—a focus on retrieving and manipulating information; purely functional language; and reliance on conventional computing techniques. Arendi contends that the claims improve computer functionality by permitting "beneficial coordination" between two computer programs, but the specifications confirm that the claims merely disclose automating a search using generic functionalities. At step two, Arendi argues that

the same "beneficial coordination" supplies the inventive concept, but that is merely a restatement of the abstract idea.

If the Court is inclined to reach any issues concerning the '843 patent, it should affirm the judgment on the alternative ground that the '843 patent is directed to ineligible subject matter for the same reasons as the other patents.

III. The Court should not reach Arendi's contention that the district court erred in granting partial summary judgment of noninfringement as to the '843 patent based on its construction of "document." But if the Court does reach the issue, it should affirm. The district court's construction is amply supported by both the claim language and specification.

IV. The Court should not address Arendi's challenge to the construction of the phrase "while it is electronically displayed" because that construction did not affect the court's holding that the '993 patent's claims are unpatentable under Section 101. In any event, the district court's construction is correct.

V. The Court also should not reach Arendi's challenge to the district court's holding that '854 claim 98 is indefinite because that patent claims ineligible subject matter. In any event, the court correctly held claim 98 to be indefinite based on the specification's failure to disclose sufficient structure corresponding to two of the claim's means-plus-function limitations.

ARGUMENT

I. This Court Should Not Address Arendi's Arguments Concerning the '843 Patent Because Arendi Failed to Appeal an Independent Ground Supporting the Judgment on That Patent.

The judgment in Google's favor with respect to the '843 patent rests on two independent grounds: noninfringement and invalidity. Although Arendi has challenged aspects of the district court's rulings relevant to noninfringement (namely, the construction of "document"), it has failed to appeal the independent invalidity verdict that supports the judgment. As this Court has recognized, when a judgment rests on alternate grounds, one of which "has not been challenged on appeal," there is "no basis to reverse that judgment," and the judgment must be affirmed. *Shedden v. Principi*, 381 F.3d 1163, 1167-68 (Fed. Cir. 2004).

A. Because the jury found that Arendi failed to establish infringement, and that Google established its affirmative defense of invalidity, the district court's judgment, entered after the verdict, rested on two independent grounds: noninfringement and invalidity. Appx10221; Appx1; *Commil USA, LLC v. Cisco Sys., Inc*., 575 U.S. 632, 643 (2015) ("noninfringement and invalidity [are] alternative grounds for dismissing [a] suit" alleging infringement on the ground that the defendant is not liable for infringement) (internal quotations omitted); *Armstrong v. BNSF Ry. Co*., 880 F.3d 377, 383 (7th Cir. 2018) (when jury finds that plaintiff

failed to prove liability and also that defendant established affirmative defense, judgment rests on both grounds).

It is bedrock law that "[a] verdict loser ... must, if it would prevail on appeal, show the absence from the record of substantial evidence to support each potential basis for the verdict." *Weinar v. Rollform Inc*., 744 F.2d 797, 810 (Fed. Cir. 1984); *McCray v. Fed. Home Loan Mortg. Corp*., 839 F.3d 354, 362 (4th Cir. 2016). When an appellant fails to challenge an "alternate ground for affirming the judgment," the correctness of the judgment necessarily will be "unaffected" by the errors that the appellant does challenge, and thus the judgment must be affirmed. *Shedden*, 381 F.3d at 1167-68. In other words, the error that the appellant does raise is necessarily harmless and can provide no basis for overturning the judgment. *Id*.; *Sapuppo v. Allstate Floridian Ins. Co*., 739 F.3d 678, 680 (11th Cir. 2014) ("When an appellant fails to challenge properly on appeal one of the grounds on which the district court based its judgment, he is deemed to have abandoned any challenge of that ground, and it follows that the judgment is due to be affirmed."); *Berna v. Chater*, 101 F.3d 631, 633 (10th Cir. 1996) (same); Fed. R. Civ. P. 61 ("At every stage of the proceeding, the court must disregard all errors and defects that do not affect any party's substantial rights.").

It was therefore "incumbent" on Arendi "to raise the issue of validity ... in its opening brief if it wished to challenge the entirety of the judgment" in Google's

favor. *Becton Dickinson & Co. v. C.R. Bard, Inc*., 922 F.2d 792, 800 (Fed. Cir. 1990). Because Arendi has not challenged the jury verdict that the '843 patent is invalid for anticipation and obviousness, it has forfeited any such challenge. *See id.*; *United Cannabis Corp. v. Pure Hemp Collective Inc*., 66 F.4th 1362, 1367 n.1 (Fed. Cir. 2023); *Cortez-Amador v. Att'y Gen*., 66 F.4th 429, 432 (3d Cir. 2023). The arguments that Arendi does raise with respect to the '843 patent—that the district court construed the claim term "document" too narrowly and therefore should not have granted summary judgment of noninfringement with respect to certain Accused Products, Br.27-43, 56—concern only noninfringement and thus cannot affect the judgment of invalidity.[7]

This Court therefore should affirm the judgment with respect to the '843 patent, and it need not—and should not—consider Arendi's noninfringement arguments before doing so. *See Sapuppo*, 739 F.3d at 683 (affirming without considering appellant's partial challenge to judgment); *United States v. Henry*, 848

[7] It is black-letter law that a broader construction, as Arendi seeks, makes invalidity less, not more, likely. *Newell Cos. v. Kenney Mfg. Co*., 864 F.2d 757, 767 (Fed. Cir. 1988) ("[t]he more narrowly a claim is construed, the more likely the claim may be upheld in light of the prior art"; argument that obviousness determination was erroneous for being based on too narrow a construction was "meritless"). The broader construction Arendi seeks, *see* Br.27-43, would necessarily encompass the narrower construction and prior art on which the invalidity findings were based. And in all events, Arendi has forfeited any argument that the "document" construction could affect the invalidity verdict by failing to raise that argument in its opening brief.

F.3d 1, 7-8 (1st Cir. 2017); *White Oak Prop. Dev., LLC v. Wash. Twp., Ohio*, 606 F.3d 842, 854 (6th Cir. 2010). Regardless of the resolution of those challenges, the judgment must stand.

B. Remarkably, Arendi *never once* acknowledges in its opening brief that the judgment in favor of Google is supported by invalidity as well as noninfringement. Indeed, Arendi mischaracterizes the '843 judgment, incorrectly asserting that the court entered a "Final Judgment of noninfringement." Br.7. Arendi's attempt to elide the multiple bases for the judgment suggests that Arendi may argue to this Court that the judgment rests only on noninfringement. Any such argument is meritless—and forfeited.

Most fundamentally, Arendi tried—and failed—to persuade the district court to narrow the judgment to the jury's noninfringement finding only. Following the verdict, Arendi challenged the invalidity verdict—but not noninfringement. In response to the district court's question whether it needed to resolve Arendi's post-trial invalidity motions, Arendi urged the court *not* to do so, and *also* to "clarify that the judgment is based on the jury's noninfringement verdict at trial" only. Appx10255. The district court correctly rejected that transparent attempt to obtain vacatur of the jury's invalidity verdict without establishing any of the narrow

grounds set forth in Rules 50 and 59.[8] *See Consumers Power Co. v. Curtiss-Wright Corp.*, 780 F.2d 1093, 1097 (3d Cir. 1986). The district court therefore denied Arendi's Rule 50/59 motions, expressly rejected Arendi's request to narrow the judgment to just noninfringement, Appx98-99, and entered judgment "in favor of Defendant and against Plaintiff on Plaintiff's claim of patent infringement" of the '843 patent, Appx1. Under those circumstances, there can be no doubt that the judgment for Google on Arendi's infringement claim is supported by the jury's verdicts of invalidity *and* noninfringement. *See Commil*, 575 U.S. at 643.

In any event, Arendi has forfeited any argument to the contrary. Arendi, of course, could have appealed the district court's resolution of the post-trial litigation surrounding the invalidity verdict: for instance, it could have appealed the court's conclusion that the jury's invalidity verdict was not moot, or the court's refusal to narrow the judgment to noninfringement. Appx98-100. By not doing so, Arendi has forfeited any argument on appeal that the judgment should somehow be limited to noninfringement. Having failed to appeal the invalidity grounds supporting the judgment on any available basis, Arendi must now live with the consequences of its

[8] The Court correctly rejected Arendi's argument that the jury's noninfringement verdict mooted invalidity. A ruling on one ground supporting a judgment does not render alternative grounds moot. *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 330 (1945) (lower court should address invalidity after finding noninfringement, where invalidity was raised as a "defense"); *Air Line Pilots Ass'n, Int'l v. UAL Corp.*, 897 F.2d 1394, 1397 (7th Cir. 1990).

tactical choices below and in this Court. Arendi cannot obtain reversal or vacatur of the no-liability '843 judgment, and this Court should affirm that judgment without considering Arendi's arguments concerning noninfringement of the '843 patent.

II. Each Asserted Patent Claims Ineligible Subject Matter.

The district court correctly held that the '854, '356, and '993 patents claim ineligible subject matter. This Court therefore should affirm the district court's judgment on those patents. If the Court is inclined to reach issues concerning the '843 patent notwithstanding Arendi's forfeiture, *see* Part I, *supra*, it should affirm the judgment of no liability on the alternate ground that the '843 patent also claims ineligible subject matter. The district court's contrary conclusion was error. *All* Asserted Patents are invalid for claiming ineligible subject matter.

The abstract-idea inquiry first examines the "focus of the claimed advance over the prior art" to determine whether the claims' "character as a whole" is directed to an abstract idea. *Affinity Labs of Tex. v. DIRECTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016). If it is, the court must determine whether the claims recite an "inventive concept" that "transform[s]" the abstract idea into a patent-eligible application. *Yu v. Apple Inc*., 1 F.4th 1040, 1043 (Fed. Cir. 2021). In the context of claims involving computers, the critical task is to distinguish between non-abstract "computer-functionality improvements" and abstract, ineligible improvements in "uses of existing computers as tools in aid of processes focused on abstract ideas."

Elec. Power Grp., LLC v. Alstom S.A., 830 F.3d 1350, 1354 (Fed. Cir. 2016). A claim is abstract if it is directed to new ways of using computers as a tool to collect and analyze information, without describing any advance in how the computer achieves those results as a computing matter. *E.g.*, *ChargePoint, Inc. v. SemaConnect, Inc.,* 920 F.3d 759, 768 (Fed. Cir. 2019).

In determining whether the claims' focus is an improvement in computer functionality or merely a use of computers to achieve an abstract idea, several considerations are relevant. For instance, claims that describe the invention in "functional" terms, without explaining "how to accomplish any of the tasks," or claims that describe mental processes that can be performed using pen and paper, are likely to be abstract. *Int'l Bus. Machines Corp. v. Zillow Grp., Inc.*, 50 F.4th 1371, 1378 (Fed. Cir. 2022) (citation omitted); *Trinity Info Media, LLC v. Covalent, Inc.*, 72 F.4th 1355, 1361-62 (Fed. Cir. 2023).

At both steps of the analysis, "[t]he § 101 inquiry must focus on the language of the Asserted Claims themselves." *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1149 (Fed. Cir. 2016). Although the specification can be "helpful in illuminating what a claim is directed to," reliance on the specification "must always yield to the claim language in identifying th[e] focus" of the claims. *ChargePoint*, 920 F.3d at 766 (citation omitted); *TecSec, Inc. v. Adobe Inc.*, 978 F.3d 1278, 1292 (Fed. Cir. 2020). Arendi, however, relies almost entirely on the patents'

specifications in arguing that the claims are not abstract. But even if the specifications contained technical elements that could render the claims non-abstract (they do not), those limitations may not be imported into the claims. *ChargePoint*, 920 F.3d at 769.

A. The district court correctly held that the '854, '356, and '993 patents are directed to the abstract idea of information retrieval and processing.

1. The patents' focus is on identifying and manipulating information—a paradigmatic abstract idea.

Each of the patents' representative claims is focused on the same basic concept of retrieving information from a document, using it to find second information in a separate source, and using that second information to perform some action.[9] Because the asserted claims merely involve "trivial variations" in language that do not affect the step-one conclusion, Google primarily addresses the claims together. *See Trinity*, 72 F.4th at 1362. Each claim is directed to identifying and manipulating information—a concept that this Court has repeatedly held is abstract.

Claim 93 of the '854 patent, for instance, recites "analyz[ing] [a] document ... to identify text ... that can be used to search for related information," "using" that text to "search a database and to locate related information," and "inserting" the related information into the document. Appx232 (17:22-33). Claim 2 of the '356

[9] Google and Arendi agree that '854 claim 93, '843 claim 1, '356 claim 2, and '993 claim 1 are representative. Appx10024, Appx10030.

patent recites a similar process, but limited to user-entered "textual information" that the computer identifies as contact information, searches for in a database, and then performs some action using the information. Appx261 (10:42-11:28). And '993 claim 1 similarly claims a method for "providing access to a contact database," "analyzing ... textual information in a document" to identify contact information, "providing for the user an input device" to perform an action, and "performing" one of "a set of potential actions" using the contact information. Appx230 (13:9-58). The potential actions include "initiating an electronic search" for the first contact information and displaying second contact information associated with the first contact information. Appx230 (13:34-45).

At their core, then, "the claims broadly recite generic steps of a kind [the Court has] frequently held are abstract: detecting information, generating and transmitting a notification based on the information, ... [and] determining ... and processing information." *Beteiro, LLC v. DraftKings Inc*., 104 F.4th 1350, 1355 (Fed. Cir. 2024). This Court has repeatedly held that claims that focus on "collecting information, analyzing it, and displaying certain results of the collection and analysis" are directed to an abstract idea. *Elec. Power*, 830 F.3d at 1353; *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1340 (Fed. Cir. 2017).

2. The patents claim their inventions using purely functional language.

The fact that the claims are drafted in purely "result[s]-based," "functional" terms confirms that they focus on the abstract idea of gathering and analyzing information, rather than any specific technical improvement in computers' ability to undertake that task. *E.g.*, *Zillow Grp., Inc.*, 50 F.4th at 1378 (citation omitted); *Two-Way Media Ltd. v. Comcast Cable Commc'ns, LLC*, 874 F.3d 1329, 1337 (Fed. Cir. 2017).

Each of the asserted claims recites some combination of functional limitations: "analyzing" textual information; "determining"/"identifying" that information as a type that can be searched for; "identifying" a portion of that information to use as a search term; "providing" an input device that, when activated, "caus[es] a search" for the search term to find related information; and "performing an action" based on the related information. But the claims do not explain *how* any of these functional steps must be performed. There are, for instance, no limits in the claims as to how textual information might be "analyzed" or "identified."

The specifications confirm that the claims are addressed to an abstract idea because they fail to provide any limitation on how the software achieves the claimed results. The specifications never describe how the claimed processes "analyze," "identify," or "retrieve" information. Instead, they simply describe those steps in the same generic terms as the claims. *E.g.*, Appx225 (4:8-9) ("a program then

executes and retrieves the type information from the document, and searches a local ... or remote ... information source ... to determine if the information ... exists in the database"). And the specifications make clear that these generic steps can be performed by any appropriate computer program: "computer code devices of the present invention can be any interpreted or executable code mechanism, including but not limited to scripts, interpreters, dynamic link libraries, Java classes, and complete executable programs, etc." Appx193 (9:37-45). The disclosed invention is broadly "applicable to all types of word processing documents," "all types of information management or database programs," and "may be practiced with all types of input devices." Appx193 (9:61-67, 10:1-7, 10:8-13).

Indeed, the shared specification is so bereft of description for how to perform the recited functions that, for the '854 patent, the district court held multiple means-plus-function limitations—analogous to the functional limitations in the other patents—indefinite under Section 112 ¶6 for failure to disclose any structure to perform those functions. Appx2686-2697.

3. The patents merely automate routine pen-and-paper activity.

An additional "telltale sign of abstraction is when the claimed functions are mental processes that can be performed in the human mind or using a pencil and paper." *Trinity*, 72 F.4th 1355, 1361-62 (Fed. Cir. 2023) (cleaned up). "[A]utomation of manual processes using generic computers does not constitute a

patentable improvement in computer technology." *Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044, 1055 (Fed. Cir. 2017).

Here, the asserted claims simply automate the process of address handling that is familiar from pen-and-paper letter writing. Take '854 claim 93 as an example:

- *"[A]nalyz[ing] [a] document ... to identify text ... that can be used to search for related information."* When drafting a letter to her penpal Penelope, Rita recognizes that Penelope's name, which she has just written, is a name for which she may have an entry in her rolodex.
- *"[U]sing" that text to "search a database and to locate related information."* Rita takes note of Penelope's name using her mind and turns to her rolodex to look for an entry for Penelope.
- *"[I]nserting" the related information into the document.* If Rita finds an entry for Penelope, she takes the address from that entry and inserts it into her letter.

The claims of the '356 and '993 patents are, as noted, quite similar, and can be reduced to pen and paper in the same way.

The specifications confirm that the claims are directed to automating a well-known process, explaining that users working in electronic documents "may require retrieval of information, such as name and address information" to insert into a "letter," and that "typically," the user must retrieve the information from an external

"information management source" (*i.e.*, a separate database). Appx282 (1:29-36). The claimed invention automates that process using generic computer functionality. Appx282; Appx193 (9:61-67, 10:1-7, 10:8-13) (claims can be performed on any word processing program). Automating a previously manual task to "conserve human resources and minimize errors" is a "quintessential" abstract idea. *Univ. of Fla. Rsch. Found., Inc. v. Gen. Elec. Co*., 916 F.3d 1363, 1367 (Fed. Cir. 2019). And the use of generic computer components to do the automating does not render the claims nonabstract. *See PersonalWeb Techs. LLC v. Google LLC*, 8 F.4th 1310, 1316 (Fed. Cir. 2021); *Trinity*, 72 F.4th at 1364.

4. Arendi's arguments that the patents improve computer functionality are meritless.

Arendi primarily contends that the claimed methods improve computer functionality by making it easier for users to look up contact (or other) information while working in a document. Br.11 (users may work in another program while the searches are performed, without special training); Br.14 ("improved interface"); Appx193 (9:50-54) (invention simplifies address retrieval for users). This Court has repeatedly held, however, that "improving a user's experience while using a computer application is not, without more, sufficient to render the claims directed to an improvement in computer functionality." *Customedia Techs., LLC v. Dish Network Corp*., 951 F.3d 1359, 1365 (Fed. Cir. 2020). In other words, the

"purported improvement in user experience" must result from a "specific structural or inventive improvement[] in computer functionality." *Id*.

Arendi argues that the patents disclose the necessary improvement in computer functionality because they purportedly improve user experience by permitting "beneficial coordination" between computer programs. Br.9. The term "beneficial coordination" appears nowhere in the claims or in the specifications but instead originates in a passing reference in the Background section of this Court's decision in *Arendi S.A.R.L. v. Apple Inc.*, 832 F.3d 1355 (Fed. Cir. 2016) ('843 patent provides "beneficial coordination" between two computer programs). Consistent with that decision, Arendi appears to use the phrase to refer to a user's ability to automatically "conduct a search using [a] second computer program while remaining in the first computer program displaying the document," rather than manually going into the second program and performing the search himself. *Id*. at 1357; *accord* Br.18.

The claim language and specification, however, nowhere describe *how* the asserted "beneficial coordination" is achieved. *See* pp. 24-25, *supra*. The claims generically recite that a second program will search a separate source while a document is displayed in a first program, without explaining how the coordination occurs. And the specification emphasizes that the invention can be used in existing programs such as Microsoft Word and can be implemented by any "executable code

mechanism," using "conventional component circuits." Appx286 (9:40-52). Arendi attempts to locate a technological improvement in the "input device," such as a button in a word processor that the user can click to institute the claimed processes. Br.14. But the claimed input device is no improvement in computer functionality: the claims do not require it to have any particular structure, and the specification explains that it can be anything, "such as a touch screen, keyboard, icon, menu, voice command device, etc." Appx283 (3:35-41), Appx286 (10:11-15). In sum, the patent claims do not disclose, and the specifications do not describe, any *improved computer process* necessary to achieve the straightforward automation of looking up information in a separate database.[10]

Using conventional computing capabilities to introduce additional automation to a process that previously would have required manual steps on a computer does not constitute an improvement in computer capabilities. *See Customedia*, 951 F.3d

[10] Contrary to Arendi's misleading account, Br.16, the *Arendi* decision does not suggest that "beneficial coordination" between programs rendered the claimed invention non-obvious or was an improvement in computer functioning. The sole question at issue was whether the prior art's disclosure of inputting a telephone number into an address book would have rendered it obvious, by virtue of common sense, to search for the telephone number among the existing entries (as disclosed in the "search" limitation of '843 claim 1). 832 F.3d at 1359 (defining the "key question in this appeal"). The Court answered that question in the negative. *Id*. at 1360-62. That narrow conclusion concerning the "search" limitation did not concern any "beneficial coordination" between computer programs and certainly does not suggest that any such coordination reflects an improvement in computer technology.

at 1365; *Secured Mail Sols. LLC v. Universal Wilde, Inc*., 873 F.3d 905, 910 (Fed. Cir. 2017). In that regard, the representative claims are materially indistinguishable from those ruled ineligible in *Credit Acceptance*, 859 F.3d at 1054-57. There, the claims disclosed a system that maintained a database of financing information, obtained financial information from a customer, combined the information, and automatically presented the customer with a financing package. *Id*. at 1054. The Court acknowledged that "the claims permit automation of previously manual processing of loan applications." *Id*. at 1055. But it explained that "the invention's communication between previously unconnected systems—the dealer's inventory database, a user credit information input terminal, and creditor underwriting servers, ... does not amount to an improvement in computer technology." *Id*. (internal quotation marks omitted). That reasoning applies here: the Asserted Patents merely use conventional computing capabilities to coordinate separate computer programs. That is no improvement in computer functionality. *See also Brumfield, Trustee for Ascent Trust v. IBG LLC*, 97 F.4th 854, 868 (Fed. Cir. 2024); *cxLoyalty, Inc. v. Maritz Holdings Inc.*, 986 F.3d 1367, 1376-77 (Fed. Cir. 2021).

Similarly, in *PersonalWeb Technologies LLC v. Google LLC*, 8 F.4th 1310, 1316, 1318 (Fed. Cir. 2021), the Court held ineligible claims that disclosed using an algorithm-generated "content-based identifier" to automatically perform certain data-management functions. The Court rejected the argument that the claims

improved computer functionality because they disclosed "a new way of locating and distributing data in a computer network that promises efficiency benefits." *Id*. at 1318. The Court reasoned that although the claims disclosed greater automation, the problems addressed by the patent and their purported solution were not unique to the computing environment. *Id*. So too here. Arendi contends that the patents solve the computer-based problem where a user must leave one program to retrieve information from a database. Br.15, 21. But that problem is just as familiar in the pen-and-paper world: a letter writer must stop writing to look up an address. Arendi's solution (automating the retrieval) is similarly familiar: the letter writer can ask her assistant to find the address while she keeps writing.

Arendi relies on two decisions, but the patent-eligible claims in those cases bear no resemblance to Arendi's. In *Data Engine Technologies LLC v. Google LLC*, this Court upheld claims to methods for navigating three-dimensional spreadsheets because the claims required "a specific interface and implementation for navigating complex three-dimensional spreadsheets using techniques unique to computers." 906 F.3d 999, 1009 (Fed. Cir. 2018). The claims' recitation of specific structures was critical to the Court's conclusion that the claims improved computer functionality: "The tabs are not merely labeled buttons or other generic icons," but rather, "*specific structures* within the three-dimensional spreadsheet environment ...." *Id.* at 1011. The Court, moreover, held ineligible related claims that "[did] not

recite the specific implementation of a notebook tab interface" and "cover[ed] any means for identifying electronic spreadsheet pages." *Id.* at 1012. Similarly, in *Core Wireless Licensing S.A.R.L. v. LG Electronics, Inc.*, 880 F.3d 1356 (Fed. Cir. 2018), the claims were directed to an improvement in computer functionality because the "limitations disclose[d] a *specific manner* of displaying a limited set of information to the user, *rather than using conventional user interface methods* to display a generic index on a computer." *Id.* at 1363.

Thus, the key to both decisions on which Arendi relies was the *specificity* of the claims themselves. Subsequent decisions have made clear that claims describing user interfaces or information analysis in broader terms than in *Data Engine* and *Core Wireless* are abstract. *See, e.g.*, *Customedia*, 951 F.3d at 1365 (distinguishing *Data Engine* on this basis); *GREE, Inc. v. Supercell Oy*, 855 F. App'x 740, 742 (Fed. Cir. 2021) (similar); *Chamberlain Grp., Inc. v. Techtronic Indus. Co.*, 935 F.3d 1341, 1347-48 (Fed. Cir. 2019) (distinguishing *Core Wireless* on similar grounds). Arendi's claims contain no such specificity and merely require the generic steps of identifying, searching, and taking some action with information. Arendi attempts to analogize its claims to those in *Data Engine* and *Core Wireless* by asserting that that its claims similarly "teach an improved interface, that is, an 'input device.'" Br.14. But the claimed input device has no meaningful limitations and is not a computer

improvement for the reasons stated above.[11] The asserted claims are thus even less specific than the "labeled buttons or other generic icons" that the *Data Engine* Court stated would be insufficiently specific to constitute a computer improvement. 906 F.3d at 1011.

5. Arendi's remaining patent-specific arguments are meritless.

Finally, Arendi's remaining patent-specific arguments, beyond the improvement-by-automation point discussed above, are unpersuasive.

'356 claim 2. Arendi argues that claim 2 "discloses a significant improvement in user interface" because it contemplates "insert[ing]" information into the document or "indicat[ing]" to the user when information is not found, "in consequence of receipt" of the execute command. Br.19. These limitations simply require displaying information using generic computer components. *Elec. Power*, 830 F.3d at 1354.

'854 claim 93. Arendi highlights the '854 specification's statement that the invention recognizes whether a user has typed a name or address by "analyzing," for instance, "Mr." and "Mrs." "designators." Br.52; Appx283 (4:33-39). But that recognition method—if it can be called that—does not appear in claim 93 itself, which merely states that the method "identif[ies] text." Appx290 (17:26-27). The claim is thus not at all "equivalent to the claimed subject matter in *Finjan*." Br. 21.

[11] Indeed, '854 claim 93 recites no input device at all.

Those claims recited a novel behavior-based virus scanning method that was a significant advance over conventional "code-matching" methods. *Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299, 1304 (Fed. Cir. 2018). Arendi's unclaimed "mechanisms for analyzing the document" involve recognizing names by the presence of common titles, Appx283 (4:33-39), a method learned by primary-school children.

'993 claim 1. Arendi emphasizes that claim 1 allows a user to make a "single execute command" on an "input device" to cause a search to be performed in a contact database. Br. 26. As discussed above, Arendi's claimed "input device" is generic. Automation of a search function using generic components is not an improvement in computer functionality. *See* pp. 25-27, *supra*. The '993 claims are thus nothing like the patent-eligible claims in *Ancora Technologies, Inc. v. HTC America, Inc.*, 908 F.3d 1343 (Fed. Cir. 2018). There, the claims were directed to a computer improvement because they recited a "specific technique that depart[ed] from earlier approaches" to computer security, and "specifically identifie[d]" how an "unexpected" structure achieved an improvement in security from hacking. *Id.* at 1348-49. Arendi's generic "input device" and its broad claim to the result of an undescribed process could not be more different. *See Finjan*, 879 at 1305-06.

B. The patents do not recite an inventive concept.

The asserted claims do not recite an inventive concept sufficient to transform their abstract idea into patentable subject matter. To avoid ineligibility at this step, the claims must "do significantly more than simply describe the abstract method." *IBM*, 50 F.4th at 1379 (citation omitted). Arendi's claims do not. They simply recite the abstract idea—receiving information, searching for related information, and performing an action—and a generic computing environment in which to perform it. The specification confirms that the computing components recited by the claims—a computer, first and second computer programs, a database, a non-transitory computer readable medium, a document editing program, and an information management program—are well-understood, routine, and conventional. *See* Appx282 (1:28-42); Appx286 (9:3-10:10). Arendi does not dispute this.

Instead, Arendi argues that the claims' inventive concept is "enabling coordination between separate programs." Br.15. But that concept simply restates the abstract idea. "Claims to an abstract idea implemented on generic computer components ... do not suffice at step two." *IBM*, 50 F.4th at 1379 (citation omitted); *PersonalWeb*, 8 F.4th at 1318. While Arendi argues that the claims solve a computer-based problem, the inefficiency and inconvenience of manually retrieving information is not unique to the computer context. *See* pp. 26-27, *supra*. And, critically, neither the claims nor the specification describes overcoming a technical

problem to achieve the alleged beneficial coordination between computer programs. The claims simply describe coordination in functional terms, with no particular method of achieving that result. The law "demands more." *Capital One*, 850 F.3d at 1342 (finding no inventive concept where claims "provide[] only a result-oriented solution"). Arendi's claims recite no inventive concept.

C. If this Court addresses the '843 patent at all, it should hold it ineligible for the same reasons as the other three patents.

Because Arendi has forfeited its arguments with respect to the '843 patent, this Court need not and should not address any of Arendi's challenges to the district court's rulings on that patent. But if the Court is inclined to address the '843 patent, it should affirm the no-liability judgment on the ground that the '843 patent is ineligible for the same reasons as the other Asserted Patents. *See Bailey v. Dart Container Corp.*, 292 F.3d 1360, 1362 (Fed. Cir. 2002); *Therasense, Inc. v. Becton, Dickinson & Co.*, 593 F.3d 1325, 1337 (Fed. Cir. 2010); *Media Rts. Techs., Inc. v. Capital One Fin. Corp.*, 800 F.3d 1366, 1375 n.3 (Fed. Cir. 2015). That issue is appropriate for this Court's review because the district court held as a matter of law that the '843 patent was not directed to an abstract idea.[12] *See Ericsson Inc. v. TCL*

[12] In litigating eligibility, the parties agreed that '843 claim 1 was representative. At trial, Arendi asserted only '843 claim 23 and its dependent claim 30. Because Arendi's agreement that claim 1 was representative necessarily acknowledged that none of the '843 claims are "separately patent eligible" from claim 1, *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1365 (Fed. Cir. 2018), the district court's ruling on claim 1

Commc'n Tech. Holdings Ltd., 955 F.3d 1317, 1321 (Fed. Cir. 2020). In so holding, the district court erred.

As Arendi agrees, Br.9, the '843 patent is materially indistinguishable from the other three patents that the district court correctly held are directed to ineligible subject matter. Claim 1 recites "displaying [a] document," "analyzing ... first information from the document," "retrieving the first information," "providing an input device" for user commands, "causing a search" for second information on user command, and "performing [an] action using at least part of the second information." Appx193-194 (10:38-11:3). Thus, the '843 patent, like the others, is focused on automating conventional information retrieval and processing using computers as a tool: the claimed invention identifies information in a document, performs a search for related information, and then takes an action with the found information.

Indeed, before this Court, Arendi defends the '843 patent's eligibility on the same grounds as the other three patents, contending that it is directed to a computer improvement because it permits "beneficial coordination" between programs, and that the same "beneficial coordination" supplies an inventive concept. Br.16-17. Those arguments fail for the reasons discussed above. *See* pp. 27-33, *supra*. Like the other patents, the '843 patent is framed in entirely functional terms ("displaying,"

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necessarily applied to claims 23 and 30 as well. Claims 1 and 23 differ only in that claim 1 is a method claim and claim 23 is a computer-readable-medium claim.

"retrieving," "performing an action"), with no direction on how to achieve the claimed functionality. The specification, shared with the '854 and '356 patents, establishes that only generic computer tools are used to achieve the result. The '843 patent is therefore directed to ineligible subject matter.

The district court erred in concluding otherwise. The court did not expressly explain why it found that the '843 patent is directed to an improvement in computer functionality, Appx54-55, but it appears to have concluded that the '843 patent permits the user to "work in two programs at the same time and use information from one program in the other program without having to close one of the programs." Appx56 (contrasting the '843 and '356 patents). That was error, for two reasons.

First, the '843 claims do not require that both the first and second applications be opened at the same time or that the user be able to use information from the information source without closing the first program. The only temporal limitation recited by claims 1 and 23 is that "while the document is being displayed" the first information is analyzed *by the first program* to determine if it is a type that may be searched for. Appx194 (12:47-52). Arendi has conceded as much. Appx2785. While the claims may "allow" simultaneous use of the two computer programs, *Arendi*, 832 F.3d at 1357, they do not *require* that the second computer program be used without closing the document, which is all that counts for the ineligibility analysis. *See Synopsys*, 839 F.3d at 1149; Appx194-195 (12:54-13:7).

Second, even if the '843 claims do require multiple programs to be open at once, that is not an improvement in computer functionality. The claims do not explain how two programs would be displayed simultaneously, and the specification does not suggest that any technical hurdle would have prevented such functionality. *See Capital One*, 850 F.3d at 1342. Furthermore, the "advantage" of displaying two programs simultaneously is an abstract one. *See, e.g.*, *Shortridge v. Found. Construction Payroll Serv., LLC*, 655 F. App'x 848, 852-53 (Fed. Cir. 2016) (holding that "simultaneous" processing did not confer patentability). And for the reasons discussed above with respect to the other patents, the '843 claims recite no inventive concept.

III. Arendi's Challenge to the Construction of "Document" and Grant of Partial Summary Judgment Based on That Construction Cannot Affect the Judgment as to the '843 Patent and Is Meritless.

Arendi's primary claim construction argument is that the district court construed the claim term "document" too narrowly. Although that term appears in all of the Asserted Patents, because three of the patents were invalidated on ineligibility grounds, the challenged construction of "document" affected only the '843 patent. Arendi contends that the district court erred in granting partial summary judgment of noninfringement as to accused products using Google's Linkify and Smart Linkify functionalities based on the court's construction of "document."

In light of Arendi's forfeiture, its "document" and noninfringement arguments with respect to the '843 patent cannot justify vacatur. *See* Part I, *supra*. The Court therefore should not address the construction of "document" with respect to the '843 patent. With respect to the other patents, the Court should not reach "document" because the construction did not affect the patents' invalidity on ineligibility grounds, and in the event of a remand on those patents, the district court would be free to revisit its construction. *See* pp. 53-54, *infra* (citing cases).

Should the Court reach the issue, it should affirm. The district court correctly construed "document" and granted partial summary judgment of noninfringement as to the '843 patent on that basis. A claim term's scope is determined from the perspective of a relevant artisan who has read the term "in the context of the entire patent, including the specification." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005). Indeed, the specification "is the single best guide to the meaning of a disputed term." *Id.* at 1315.

Arendi does not dispute that the term "document" should be construed to have the same meaning across the Asserted Patents. Br.32. The claim language and the specifications' disclosure show that "document" means "a word processing, spreadsheet, or similar file into which text can be entered." Arendi's construction would broaden the claims beyond anything contemplated by the patents and should be rejected.

A. The Asserted Patents define the invention as limited to word processing, spreadsheet, or similar files.

The district court correctly held that "document" means a "word processing, spreadsheet, or similar file" based on overwhelming evidence in the specifications that the purported invention is limited to such files. As Arendi acknowledges, nothing in the claims themselves suggests that the term "document" is *broader* than "word processing, spreadsheet or similar file[s]." Br.41-43 (arguing only about the specification). The court therefore correctly turned to the specification to discern the scope of "document" as used in the patent. *See Sequoia Tech., LLC v. Dell, Inc*., 66 F.4th 1317, 1323 (Fed. Cir. 2023).

The patents' specifications exclusively characterize the claimed invention in terms of word processing, spreadsheet, or similar files. In particular, they take the dispositive step of expressly *defining* the "present invention ... in terms of word processing documents":

> Although the *present invention is defined* in terms of *word processing documents*, such as WORD™ documents and EXCEL™ spreadsheets, the *present invention* is applicable to all types of *word processing documents* such as NOTEPAD™, WORDPAD™, WORDPERFECT™, QUATRO-PRO™, AMIPRO™, etc. ….

Appx193 (9:61-67). As the EXCEL™ and QUATRO-PRO™ spreadsheet examples illustrate, "word processing documents" include not only word processing files but also spreadsheets and similar files. *See also* Appx192 (8:55-57) ("word processor document, such as an EXCEL spreadsheet").

Consistent with this defined scope of the purported invention, both the problem addressed by the patents and the alleged inventive solution pertain to word processing documents. The specifications describe the problem of users needing to manually retrieve information "for insertion into a document, such a[s] a letter, fax, etc., *created with the word processor[]*." Appx189 (1:28-32); Appx190 (3:38-40) (defining "word processor" to be a "word processing program, spreadsheet program, etc."). And "according to the *present invention*, the process of creating and updating records in an address database is significantly simplified" by performing actions "directly from the *word processor*." Appx193 (9:57-60); Appx189 2:14-23 (enabling retrieval of information from a database "while the user works simultaneously in another program, e.g., [the] word processor").

In addition, the specifications repeatedly and consistently discuss documents in the context of word processing, which is an independent basis for implicitly defining or limiting the claim term. *Trustees of Columbia Univ. v. Symantec Corp.*, 811 F.3d 1359, 1364 (Fed. Cir. 2016); *GPNE Corp. v. Apple Inc.*, 830 F.3d 1365, 1370 (Fed. Cir. 2016) ("[W]hen a patent 'repeatedly and consistently' characterizes a claim term in a particular way, it is proper to construe the claim term in accordance with that characterization."). For example, in *Eon-Net LP v. Flagstar Bancorp*, 653 F.3d 1314 (Fed. Cir. 2011), the Court limited "document" to information originating from a hard copy document, based on how the specification "repeatedly define[d]

the invention." *Id.* at 1321-23. Here, the specifications refer to "documents" as "word processing documents," "word processor documents," or "spreadsheets"—or files created by a "word processor," "word processing program," or "spreadsheet program"—in more than fifty instances. *See, e.g.*, Appx190 (3:42-45) ("a document created with the word processor"); Appx191 (5:63-65) ("FIG. 3 illustrates a starting point in a word processor document").

Against this overwhelming evidence, Arendi protests that the specification does not contain the "words of manifest exclusion" that are, in Arendi's view, necessary to limit claim scope. Br.42. But Arendi's own authorities establish that there is no magic-words requirement and that a term's scope must be discerned from the specification as a whole. *See Hill-Rom Servs., Inc. v. Stryker Corp.,* 755 F.3d 1367, 1372 (Fed. Cir. 2014) (explaining that repeated references, disparaging language, and consistent usage can limit a claim term). In other words, the specification need not *expressly* disavow particular scope to limit a term's meaning. *Trustees*, 811 F.3d at 1363-64. Instead, the claim terms take meaning from—and can be limited by—the overall context of the specification. *See, e.g.*, *UltimatePointer, LLC v. Nintendo Co*., 816 F.3d 816, 823 (Fed. Cir. 2016) (construing "handheld device" not to include indirect-pointing systems because specification emphasized that "the invention is directed to a direct-pointing system"); *Honeywell Int'l, Inc. v. ITT Indus., Inc*., 452 F.3d 1312, 1318 (Fed. Cir.

2006) (construing claim term "fuel injection system component" to cover only "fuel filter[s]" based on specification). Here, the specification's definitional discussion, and its repeated and consistent usage of the term "document," leave no doubt that a "document" is a word processing, spreadsheet, or similar file. *Trustees*, 811 F.3d at 1363 (the "only meaning that matters in claim construction is the meaning in the context of the patent").

Arendi's emphasis that the specification uses "such as" and "etc." to define "word processing program," Br.43, cannot overcome the specification's repeated and exclusive focus on documents that are word processing and similar files. *See Archer Daniels Midland Co. v. United States*, 561 F.3d 1308, 1313 (Fed. Cir. 2009) (holding the "rule of *ejusdem generis* ... limits the additional [things] included by the general phrase 'etc.' to others of the types listed"). This Court has expressly refused to give a claim term a broader construction where the specification as a whole makes clear that the object of the invention relates to a narrower understanding of the term. *Sequoia Tech*., 66 F.4th at 1323 (refusing to construe a statement that computer readable medium "include[es]" non-transitory media as evidence that the term included transitory media). And the background discussion Arendi cites regarding "documents, such a[s] a letter, fax, etc.," states that even these documents are "*created with the word processor[]*." Appx189 (1:28-32).

Finally, Arendi asserts that the specifications use the term "documents" inconsistently. Br.42. Not so. While they make clear that the invention is not limited to files created with a particular word processor such as WORD™, EXCEL™, or QUATROPRO™, they unequivocally state that the invention *is* limited to "word processing documents." Appx193 (9:61-67). The specifications' statements that "the present invention" includes *other* claim elements (such as information management programs, *i.e.*, the second computer program that is searched for information) neither contradicts nor is inconsistent with it limiting "document" to word processing documents. Nowhere does the specification contemplate or describe a "document" that is something other than a word processing, spreadsheet, or similar file.

B. The Asserted Patents require that a "document" be editable.

1. The district court also correctly held that the claim language requires that the recited "document" be editable, *i.e.*, capable of receiving text. A term's construction is informed by the context in which it is used in the claim. *See Pozen Inc. v. Par Pharm., Inc.*, 696 F.3d 1151, 1160-61 (Fed. Cir. 2012). "Care must be taken lest word-by-word definition, removed from the context of the invention, leads to an overall result that departs significantly from the patented invention." *On Demand Machine Corp. v. Ingram Indus., Inc.*, 442 F.3d 1331, 1344 (Fed. Cir. 2006). Claim context shows that the "document" must be editable.

In all claims of the ’356 patent, for example, the very first limitation requires the user to “enter textual information into a document,” and later limitations recite that after a search is performed and related information located, information is inserted into the document. Appx261-262 (10:47-48, 11:16-21). These limitations show that editability is a necessary property of the claimed “document.” Indeed, Arendi itself uses exactly this reasoning as to *other* constraints on the term “document.” Specifically, Arendi acknowledges that “document” must be limited to *electronic* documents that contain *textual* information because the limitations of ’843 claim 1 presuppose that the document will be displayed using a “computer program” and that it will contain “first information.” Br.26-27. By that same reasoning, the ’356 patent’s requirement that the user be able to enter textual information into the document demonstrates that the term “document” must be limited to editable documents.[13] And because Arendi has also conceded that “document” has the same meaning across all patents, Br.28, the “document” recited by each must be a file “into which text can be entered.”

The ’843 patent’s claim language confirms that conclusion. Although its independent claims do not recite entering or inserting text into the document,

[13] Arendi resists that conclusion, Br.29-30, but it does not explain why limitations presupposing an *electronic* document with *textual* information limit the scope of the term “document” while limitations presupposing *editability* do not.

dependent claims 5, 18, 19, 27, 40, 41, and 44 do require "addition" or "insertion" into "the document" of at least part of the information retrieved by the search. Appx194-196, (11:13-15, 13:23-25, 16:4-5). These dependent claims thus presuppose that the document must be editable. Importantly, though, the dependent claims do not represent a narrowing of the independent claims *with respect to whether or not the document is editable*. Instead, the "addition" or "insertion" limitations in the dependent claims represent a narrowing of the independent claims' *separate* limitation concerning "performing the action" using the retrieved information. *E.g.*, Appx194 (11:13-15) (dependent claim 5, "wherein performing the action includes causing addition of at least part of the second information to the first information in the document"); *see also* Appx194-195 at claims 3-4, 6-7, 25-26, 28-29 (specifying other actions). Thus, the "document" recited by both the independent claims and the dependent claims must be editable. *See Schoenhaus v. Genesco, Inc.*, 440 F.3d 1354, 1356-57 (Fed. Cir. 2006) (rejecting patentee's broader construction that rendered dependent claim nonsensical).

Arendi attempts to turn this difference in the dependent and independent claims to its advantage by arguing claim differentiation, but that is unavailing. The doctrine of claim differentiation "creates a presumption that each claim in a patent has a different scope." *Versa Corp. v. Ag-Bag Int'l Ltd.*, 392 F.3d 1325, 1330 (Fed. Cir. 2004) (citation omitted). Here, however, construing "document" to require

editability does not make any other limitations superfluous. For example, even when "document" requires editability in both '843 claim 1 and '356 claim 1, the latter is further differentiated because it requires actual entry of text by the user. The same is true comparing '843 claim 1 to its dependent claims that require insertion of text, as noted above. Because the district court's construction does not render any limitations superfluous, Arendi's claim differentiation argument lacks merit. Construing "document" to require editability simply makes explicit what is implicitly required by much of the claim language.

Relatedly, the decisions on which Arendi relies do not help it. Br.32. In those cases, a term appeared in certain claims with an explicit limiting qualification that would not have been necessary unless the unqualified term had a broader meaning. *See Phillips*, 415 F.3d at 1324 ("baffles" was expressly qualified with a limiting structure in certain claims); *Ancora Techs., Inc. v. Apple, Inc*., 744 F.3d 732, 735 (Fed. Cir. 2014) (holding that "program" must be broader than "application software program" because the latter qualification appeared in certain claims). Those decisions would be apposite here only if some claims said "document that is editable." But none do. Instead, some claims contain separate limitations that presuppose the document is editable, and some do not. That distinction among claims indicates that the "document" must be editable for the reasons stated above.

And in all events, Arendi points to no affirmative evidence whatsoever that *any* claim requires or even contemplates that the document will not be editable.

To the contrary, as discussed below, the specification leaves no doubt that the document must be editable. Arendi's reliance on purported claim differentiation therefore not only fails on its own merits; it fails because it "does not trump the clear import of the specification." *Edwards Lifesciences LLC v. Cook Inc.*, 582 F.3d 1322, 1331 (Fed. Cir. 2009); *see Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1480 (Fed. Cir. 1998).

2. The specification confirms that a "document" must be editable by repeatedly, consistently, and exclusively characterizing the invention as requiring a document into which text can be entered. *See Eon-Net*, 653 F.3d at 1321. *Every* embodiment and description of the invention describes documents in which text can be "entered," "typed," or "inserted." *See, e.g.*, Appx175-176 (Figs. 1, 2); Appx189-191 (2:14-34, 3:42-45, 4:25-26, 5:63-65, 6:1-2). Arendi attempts at great length to discount the specification's consistency, Br.34-40, but the fact remains that the specification only points one way—and Arendi, again, offers *no* evidence that any embodiment or figure contemplates that the document will not be editable.

Indeed, the primary purpose of the invention cannot be achieved if the document is not editable. "A patent's statement of the described invention's purpose" also "informs the proper construction of claim terms." *Kaken Pharm. Co.*

v. Iancu, 952 F.3d 1346, 1352 (Fed. Cir. 2020). The stated problem that the invention purportedly solves is that a user typing in a document must go to another program (*e.g.*, a contact database) to find additional information (*e.g.*, an address) to enter into the document. Appx189 (1:28-32). The stated solution is to streamline the text-entry process by automatically locating information (*e.g.*, an address) associated with text a user has just typed (*e.g.*, a name). Appx189 (1:33-36, 2:20-23, 2:45-23); Appx193 (9:50-60). Indeed, throughout Arendi's own discussion of the patents in connection with Section 101, Arendi repeatedly emphasizes that the claims enable coordination with a second program *while the user is working in the document*. Br.11, 13, 17, 19, 23. The Asserted Patents never suggest any problem associated with uneditable text and offer no generalized solution for that context. Only documents "into which text can be entered" align with the stated purpose of the invention, *i.e.*, enabling a search for related information while the user works in the document. Appx189 (1:28-33, 2:14-34).[14]

Studiously ignoring the central purpose of its own alleged invention for claim-construction purposes, Arendi points out that "one of the benefits" of the invention

[14] Indeed, in response to a final rejection during prosecution of the '993 patent, the applicant "utterly disagree[d]" with an examiner's assertion that "'anything' displayed" could be a document. Appx10267. The applicant stated that "document" is "used repeatedly in the application and always in the same sense," and includes Word documents but not a "search screen"—a distinction addressed by Google's, but not Arendi's, construction. Appx676-677.

is a purportedly improved method for updating records in a database. Br.34. Arendi asserts that that process does not require inserting information into the document. But even in those described embodiments, a user must enter text into a document that is then used to update the database. *See, e.g.*, Appx191-192 (6:66-7:19) ("FIG. 4 illustrates a starting point in [a] word processor document, such as WORD document, wherein the user has typed [information]."). That is true even in the '993 patent's specification, whose claims, Arendi argues, are focused on these database-updating embodiments.[15] Br.31. Nowhere, in any specification, does the patentee describe scraping an uneditable document for contact information to update a database. All purported benefits of the described invention are premised on the context where a user has entered text into a document and wants to perform further action on that text while minimizing disruption to his or her work flow.[16]

Perhaps recognizing as much, Arendi offers that a document might flip back and forth between editable and non-editable during the course of the claimed

[15] If Arendi is correct that the '993 patent requires no more than retrieving information from an uneditable document and using that information to update an electronic database, Br.31, the '993 patent is wholly indistinguishable from the claims held ineligible in *Content Extraction Transmission LLC v. Wells Fargo N.A.*. 776 F.3d 1343, 1347-48 (Fed. Cir. 2014); *see* pp. 22-27, 34, *supra*.

[16] Indeed, Arendi argues in connection with eligibility that the '993 patent solves the problem of a user "having to interrupt work in an electronic document to manually find related information ...." Br.23. It is unclear how a user could "work" in an uneditable document.

processes. Br.34. That supposition is even less persuasive: it not only finds no support in the specification, but also bears no resemblance to how users actually work. *See Sequoia Tech.*, 66 F.4th at 1323 (declining to adopt broader construction that was implausible given invention's thrust). "Although claims need not be limited to the preferred embodiment when the invention is more broadly described, neither do the claims enlarge what is patented beyond what the inventor has described as the invention." *Inpro II Lic'g, S.A.R.L. v. T-Mobile USA, Inc.*, 450 F.3d 1350, 1355 (Fed. Cir. 2006) (citation and quotation marks omitted).

Finally, Arendi relies on Google's products and other extrinsic evidence to broadly construe the claims. Br.29, 39-40 (citing expert testimony, an accused functionality, and dictionaries). That too is unavailing. Arendi faults the district court for requiring editability when programs like Acrobat and the Accused Products can display uneditable text. Br.29. But the specifications nowhere mention Acrobat, PDFs, or other read-only files. And it is textbook error to construe the claims in light of the accused technology. *See SRI Int'l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1118 (Fed. Cir. 1985). The extrinsic evidence does not support Arendi either. That technical dictionaries use the term "document" to include non-editable PDF files cannot overcome the patentee's clear choice to use a more limited meaning. "[T]he existence of one broader meaning in the field is not controlling. What matters is the meaning most appropriate in the context of the particular patent." *McRO, Inc.*

v. Bandai Namco Games Am., Inc., 959 F.3d 1091, 1099 (Fed. Cir. 2020). In view of the overwhelming intrinsic evidence, Arendi's extrinsic evidence is both irrelevant and unpersuasive.

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The district court correctly construed "document" to require editability. This Court therefore should reject Arendi's contention that the court wrongly granted summary judgment as to Google's products using Linkify and Smart Linkify based on the "'edi[ta]bility' requirement," Br.56. If the Court addresses the "document" issue and agrees with Arendi, it still should not vacate the jury's verdict of noninfringement with respect to the Accused Products with STS functionality. Arendi forfeited any challenge to that verdict by failing to file any post-trial motion. It also has not argued that the construction of "document" was relevant to the jury's verdict—correctly so, because that verdict was based on distinct noninfringement arguments. *See Verizon Servs. Corp. v. Cox Fibernet Va., Inc.*, 602 F.3d 1325, 1342 (Fed. Cir. 2010).

IV. The District Court Correctly Construed the '993 Patent Term "While It Is Electronically Displayed."

The Court should not address Arendi's challenge to the construction of "while it is electronically displayed" (relating to '993 claims 1, 9, and 17). Arendi does not contend that the construction of the "electronically displayed" limitation affected the district court's ruling that the '993 patent was directed to ineligible subject matter.

Br.22-26; Appx55. Where "a party's claim construction arguments do not affect the final judgment entered by the court, they are not reviewable." *SanDisk Corp. v. Kingston Tech. Co.*, 695 F.3d 1348, 1354 (Fed. Cir. 2012); *see Personalized User Model, LLP v. Google Inc.*, 797 F.3d 1341, 1350 (Fed. Cir. 2015); *Jang v. Boston Sci. Corp.*, 532 F.3d 1330, 1336-37 (Fed. Cir. 2008). Even if this Court were to vacate the district court's Section 101 judgment, any review of the claim construction would be premature, as it is unclear whether or how Arendi's proposed construction would affect infringement or validity issues on remand. Indeed, the district court would have discretion to "revisit[] and alter[] its interpretation of the claim terms." *Pressure Prods. Med. Supplies, Inc. v. Greatbatch Ltd.*, 599 F.3d 1308, 1316 (Fed. Cir. 2010).

In any event, the district court correctly concluded that the first contact information must be electronically displayed *in the document* when an electronic search is initiated. Appx25-26. Claims 1, 9, and 17 all require "first contact information" to be textual information that is "in a document," Appx230-231 (13:21-24, 14:26-29, 15:39-42), and then subsequently recite initiating an electronic search while "*the* first contact information" is electronically displayed, *id.* (13:35-36, 14:40-41, 15:53-54). The antecedent basis for "the first contact information" that is electronically displayed is the *same* first contact information that is identified in the document, so the claims require displaying that information in the document, *not a*

copy of it anywhere else. *See Wi-Lan, Inc. v. Apple, Inc.*, 811 F.3d 455, 462 (Fed. Cir. 2016); *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1356 (Fed. Cir. 1999). Moreover, the specification explains that the purpose of the purported invention is to permit a user to initiate a search from the word processor as to just-typed contact information, while continuing to work in the document in which the first contact information is being displayed. Appx225 (4:1-16). For example, Figures 3 and 4 show that contact information is entered by the user and displayed in the document, and the user hits button 42 to initiate a search while working in the document. Appx209-210 (Figs. 3, 4); Appx226-227 (6:21-31, 7:6-19, 7:27-34, 7:58-66, 8:40-47). *Every* figure and embodiment is to the same effect. Appx211 (Fig. 5); Appx218-219 (Figs. 14, 15); Appx226 (6:39-47); Appx228 (9:16-23). Thus, the search is initiated while the first contact information is electronically displayed in the document. That construction gives effect to the claim language, stated benefit, and all embodiments.

Arendi's suggestion that the system could display the first contact information in a dialog box is unavailing. It points only to Fig. 6, Br.45, but the specification describes that figure as showing a menu of options that may be displayed to a user ***after*** a search has failed to find contact information in the database. Appx226 (6:41-57). Unlike the intrinsic evidence discussed above, Figure 6 does not purport to

show what would be displayed when the search is ***initiated***. Arendi's argument thus lacks support.

V. The District Court Correctly Held '854 Claim 98 to Be Indefinite.

The Court need not reach Arendi's contention that the district court wrongly held that '854 claim 98 is indefinite because that patent claims ineligible subject matter. *See* Parts II(A)-(B), *supra*.

If the Court reaches the issue, it should affirm. The district court correctly held claim 98 to be indefinite under 35 U.S.C. § 112 ¶6 based on the specification's failure to disclose sufficient structure corresponding to the recited functions of the first and third limitations: (1) "computer-readable medium including program instructions for ... using a first computer program to analyze the document, without direction from the operator, to identify text in the document that can be used to search for related information" (the "'analyzing' limitation"), Appx290 (18:19-24); and (3) "computer-readable medium including program instructions for ... inserting the information located in step (2) into the document" (the "'inserting' limitation"), Appx290 (18:28-29). Under the first step in the means-plus-function analysis, both limitations are drafted in means-plus-function format because they do not describe sufficiently definite structure. *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1349 (Fed. Cir. 2015) (en banc in relevant part). Under the second step of the analysis, neither limitation is supported by any corresponding structure disclosed in

the specification. *Id.* at 1351. The structure disclosed in the specification must be "more than simply a general purpose computer or microprocessor," which "can be programmed to perform very different tasks in very different ways"—that is, the specification must disclose an algorithm expressing the structure through which the function is achieved. *Aristocrat Techs. Australia Pty Ltd. v. Int'l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008). Neither limitation does so.

Affirming the indefiniteness of either limitation alone would be sufficient to affirm that claim 98 as a whole is indefinite. *See Media Rts.*, 800 F.3d at 1375.

A. The "analyzing" and "inserting" limitations are means-plus-function elements.

Arendi first argues that the "analyzing" and "inserting" limitations do not invoke means-plus-function claiming because the phrase "computer readable medium including program instructions" in claim 98's preamble "provide[s] sufficient structure." Br.46, 50. That argument lacks merit.

As an initial matter, Arendi has forfeited that argument with respect to the "analyzing" limitation, because it took the opposite position in the district court. *See* Appx460 (identifying the limitation as a means-plus-function element); Appx10012, 10014-10016; Appx29 (noting parties' agreement that this limitation is a means-plus-function element); *see Chi. Bd. Options Exch., Inc. v. Int'l Sec. Exch., LLC*, 677 F.3d 1361, 1366 (Fed. Cir. 2012).

In any event, both the "analyzing" and "inserting" limitations are "means-plus-function claim limitations." *Williamson*, 792 F.3d at 1350. Although neither limitation uses the word "means" and therefore both are presumed not to be drafted in means-plus-function form, Section 112 ¶6 nonetheless applies if the limitations use an equivalent nonce word to connote a generic "black box" for performing a computer-implemented method. *Id.* "[T]he question is not whether a claim term recites *any* structure but whether it recites *sufficient* structure" for performing the recited function. *Egenera, Inc. v. Cisco Sys., Inc.*, 972 F.3d 1367, 1374 (Fed. Cir. 2020) (emphases in original). Here, "computer readable medium including program instructions" falls short: it is generic and connotes no particular structure for the recited functions. It is analogous to the term "logic" in *Egenera*, which the Court held, in context, was just a generic substitute for "means," even assuming "logic" connoted structure "in the general sense of software, firmware, or circuitry." *Id.* at 1374-75; *see also Williamson*, 792 F.3d at 1350 ("'[M]odule' is simply a generic description for software or hardware that performs a specified function."). That conclusion is reinforced by '854 claim 101, which is identical to claim 98 in all respects, except that it uses the word "means" instead of "computer-readable medium including program instructions." Appx291 (20:1-9). Because the phrase "computer readable medium including program instructions" can be replaced by the word "means," the former clearly does not recite any meaningful structure for the

"analyzing" and "inserting" functions. *See* Appx29, Appx31 (district court treated "means" and "computer readable medium including program instructions" as equivalent).

Arendi contends, relying primarily on *Dyfan, LLC v. Target Corp.*, 28 F.4th 1360 (Fed. Cir. 2022), and *Zeroclick, LLC v. Apple Inc.*, 891 F.3d 1003 (Fed. Cir. 2018), that the claim nonetheless recites a sufficiently definite structure. That is incorrect. In those decisions, this Court did not hold that "program" or "code" per se connotes sufficient structure. Rather, it explained that a claim reference to "program" or "code" together with functional steps recites sufficient structure *if* a skilled artisan would understand that the claimed functions could be implemented using pre-existing "conventional" or "off-the-shelf" software. *Dyfan*, 28 F.4th at 1368; *see Zeroclick*, 891 F.3d at 1008. That is not the case here. The "analyzing" limitation recites functionality to "identify text" of a certain type "without direction from the operator," Appx290 at 18:21-24, which the specification describes as more streamlined than existing processes. *Id.* at 9:53-63. The defense-expert testimony on which Arendi itself relies, Br.50, explained that there are "numerous" "complex and varied" ways to program the analyzing function, *id*. (citing Appx6348 ¶33), confirming that the limitation would not be carried out by off-the-shelf software. And the "inserting" limitation involves inserting "related information" found in a separate database into the document, which, according to the specification,

automated a process that users typically had to perform themselves. Appx189 (1:29-38); Appx193 (9:53-63). Although Arendi asserts that an artisan could have implemented the functionality by using script files, Br.50 (quoting Appx6372 ¶34), Arendi also credits defense-expert testimony that some further "special programming" would have been needed. *Id.* (quoting Appx6357 ¶51). *Dyfan* and *Zeroclick* are therefore inapposite here.

B. The '854 patent fails to disclose sufficient structure for the "analyzing" and "inserting" limitations.

Because the two limitations are computer-implemented means-plus-function limitations, the specification must disclose algorithms for performing the claimed functions. *Noah Sys., Inc. v. Intuit Inc*., 675 F.3d 1302, 1312 (Fed. Cir. 2012). The specification does not do so—nor does it contain *any* corresponding structure for how the functions are achieved.

As an initial matter, Arendi has not appealed the district court's ruling that claim 101—which is materially identical to claim 98—is indefinite. Appx28-31 (addressing indefiniteness of both claims together). Those claims contain the same limitations, Appx291 (20:1-4), differing only in that claim 101 uses the term "means"—a distinction that is relevant to the first step of the Section 112 ¶6 analysis, not the second. As to the second step, Arendi has never contended that the specification discloses separate corresponding structures for claim 98 and claim 101.

Arendi's apparent acknowledgment that claim 101 is indefinite thus confirms that the specification fails to disclose sufficient structure for claim 98.[17]

"Analyzing" limitation. Arendi contends that the specification "provides clear directions on how to analyze the document," Br.51, but the cited passages merely describe "analyz[ing]" what a user has typed, without any further disclosure. For instance, element 4 in Figure 1 includes only a black box labeled "analyze what the user has typed in the document." Appx268 (Fig. 1, no. 4). And, contrary to Arendi's argument, Br.51-52 (quoting Appx283 (4:25-39)), the statement that the "program analyzes" text, including by looking for "Mr." and "Mrs." designations, is hardly an algorithm. While this passage identifies types of information that might be analyzed, it (and the rest of the specification) fails to describe any specific steps to accomplish the analysis—*e.g.*, steps defining how a computer would recognize text as any of the information types mentioned, or how a computer would handle particular information types if they are detected. Appx30; Appx6350-6352 ¶¶40-41 (defense-expert testimony that "giving a list of classes [of information] is not giving an algorithm for classification of text into those classes"; specification does not explain what "computation activity is utilized to accomplish the analysis").

[17] The PTAB also concluded that the corresponding limitations of '854 claim 101 lack corresponding structure. *See* Appx1318-1319 (denying IPR institution); Appx2071, Appx2077-2078 (petition).

Arendi's assertion that the specification adequately discloses how to analyze information "without direction from the operator" also fails. The cited portion of the specification, Br.52 (quoting Appx286 (10:17-22)), relates to a *different* claim in the '356 patent, concerning user selection of text. *See* Appx262 (claim 2). Arendi does not explain how merely listing "prohibited" user actions (such as highlighting text) discloses how the analyzing step would be accomplished without user involvement, much less identify any disclosed algorithm.[18] *Cf.* Br.50 (quoting Appx6348 ¶33, which explains that numerous computing approaches to the "analyzing" limitation were available).

"Inserting" limitation. On appeal, Arendi does not argue that if the "inserting" limitation is a means-plus-function element, the specification nonetheless discloses sufficient corresponding structure. Br.51-53. The Court therefore may affirm indefiniteness based on the means-plus-function nature of the limitation.

In all events, the district court correctly held that the '854 specification fails to explain "how, algorithmically," the claimed invention inserts information from a separate database into the document. Appx33. As the court explained, although the

[18] *Typhoon Touch Technologies, Inc. v. Dell, Inc*., 659 F.3d 1376 (Fed. Cir. 2011), which held that an algorithm may be disclosed in detailed prose rather than code, does not aid Arendi. The '854 specification fails to disclose any algorithm for the "analyzing" limitation in code, prose, or otherwise.

specification provides examples of the *result* of this inserting/adding function, it never discloses an algorithm teaching a skilled artisan how to actually accomplish it. Appx33 (citing Figures 1, 2, 4). Arendi's only response was that an artisan would have known different ways to insert information into a document. Appx34. But that misses the point: an artisan's knowledge cannot remedy the specification's failure to explicitly disclose any necessary structure. *See EON Corp. IP Holdings LLC v. AT&T Mobility LLC*, 785 F.3d 616, 624 (Fed. Cir. 2015).

The district court therefore correctly held that claim 98 is indefinite.

CONCLUSION

For the foregoing reasons, the Court should affirm.

DATED: July 17, 2024

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1. This brief complies with the type-volume limitation of Federal Circuit Rule 32(b)(1), because it contains 13,992 words, excluding the parts of the brief exempted by Federal Rule of Appellate Procedure 32(f) and Federal Circuit Rule 32(b)(2).

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