IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ALL TERMINAL SERVICES, LLC d/b/a CONGLOBAL TECHNOLOGIES, *Plaintiff*, v. ROBOFLOW, INC., *Defendant*.	§ § § § § § § § § § §	Civil Action No. 25-476-WCB

MEMORANDUM OPINION AND ORDER

In this patent infringement action, plaintiff All Terminal Services, LLC, d/b/a ConGlobal Technologies ("ConGlobal") has brought suit against defendant Roboflow, Inc. ConGlobal has asserted U.S. Patent No. 12,020,148 ("the '148 patent"); U.S. Patent No. 12,217,183 ("the '183 patent"); and U.S. Patent No. 12,254,439 ("the '439 patent"). Roboflow has moved to dismiss the infringement allegations, arguing that all the claims of the three asserted patents are ineligible for patenting under 35 U.S.C. § 101 and that the complaint fails to adequately allege infringement. Dkt. No. 15. For the reasons set forth below, Roboflow's motion is granted as to patent eligibility under section 101 and denied as to the adequacy of the infringement allegations.

I. BACKGROUND

The three patents in suit all cover similar subject matter. Claim 1 of the '148 patent reads:

> 1. A control system for a railway yard with a plurality of railroad tracks, the control system comprising:
>
> a plurality of remote control locomotives (RCLs) and sets of railcars respectively associated therewith on the plurality of railroad tracks;

a plurality of railyard sensors configured to generate railyard sensor data of the plurality of railroad tracks; and

a server in communication with said plurality of RCLs and said plurality of railyard sensors, said server configured to

generate a database associated with the sets of railcars based upon the railyard sensor data, the database comprising, for each railcar, a railcar type value, a railcar logo image, and a vehicle classification value, and

selectively control said plurality of RCLs to position the sets of railcars within the plurality of railroad tracks based upon the railyard sensor data,

wherein said plurality of railyard sensors comprises an image sensor configured to generate railyard image data, and a proximity sensor configured to detect a presence of plurality of RCLs, and

wherein said server is configured to identify each railcar based upon the railyard image data.

Claim 16 of the ’183 patent reads:

1. A control system for a railway yard with a plurality of railroad tracks, the control system comprising:

one or more remote control locomotives (RCLs) and one or more railcars respectively associated therewith on one or more railroad tracks;

one or more railyard sensors configured to generate railyard sensor data of the one or more railroad tracks; and

a server in communication with the one or more RCLs and the one or more railyard sensors, the server including one or more processors and one or more non-transitory computer-readable storage mediums storing instructions comprising one or more algorithms that when executed by the one or more processors cause the one or more processors to perform steps to:

generate a database associated with the one or more railcars based upon the railyard sensor data; and

selectively control the one or more RCLs to position the one or more railcars within the one or more railroad tracks based upon the railyard sensor data,

wherein the one or more railyard sensors comprises an image sensor configured to generate railyard image data, and

wherein the server is configured to identify each railcar of the one or more railcars based upon the railyard image data.

Claim 1 of the ’439 patent reads:

1. A control system for an inventory management facility, the control system comprising:

one or more shipping assets in the inventory management facility;

one or more sensors configured to generate sensor data of the one or more shipping assets; and

a server in communication with the one or more sensors, the server including one or more processors and one or more non-transitory computer-readable storage mediums storing instructions comprising one or more algorithms that when executed by the one or more processors cause the one or more processors to perform steps to:

generate a database associated with the one or more shipping assets based upon the sensor data; and

track at least one of a location or a movement, or a combination thereof, of a shipping asset of the one or more shipping assets within the inventory management facility,

wherein the one or more sensors comprises one or more image sensors configured to generate image data, and

wherein the server is configured to identify a shipping asset of the one or more shipping assets based upon the image data,

wherein the server is configured to perform optical character recognition (OCR) on the image data including at least one of:

generating a text string for the shipping asset,

determining a color of the shipping asset, or

generating logo image data associated with a logo carried by the shipping asset, or

a combination of two or more thereof; and

wherein the server is configured to perform machine learning on the image data including executing at least one of:

a first machine learning model comprising a neural network trained to predict a location of text sequences in the image data; or

a second machine learning model comprising a neural network for scanning the text sequences and predicting a sequence of missing characters; or

a combination thereof,

wherein the server is configured to track the at least one of the location or the movement, or the combination thereof, of the shipping asset within the inventory management facility based on the at least one of the generated text string for the shipping asset, the determined color of for the shipping asset, or the generated logo image data for the shipping asset, or the combination of two or more thereof; and

one or more vehicles in the inventory management facility,

wherein the server is in communication with a vehicle of the one or more vehicles and is configured to transmit one or more operational values to the vehicle to position the shipping asset at a predetermined location within the inventory management facility based upon the sensor data, and

wherein the vehicle comprises:

a geolocation device configured to generate a geolocation value for the vehicle;

a wireless transceiver configured to communicate with the server; and

a controller coupled to the wireless transceiver and the geolocation device,

wherein the controller is configured to transmit the geolocation value for the vehicle to the server.

ConGlobal alleges that the asserted patents "generally claim systems and methods managing rail yard and intermodal yard inventory using ratification intelligence, including image recognition, optical character recognition (OCR), and machine learning algorithms." Dkt. No. 1 at ¶ 2. ConGlobal further alleges that the "patented technology includes systems for capturing visual data from yard assets using mobile or stationary imaging equipment, processing that data to identify alphanumeric identifiers, logos, and classifications, and integrating this analysis into yard management operations." *Id.* at ¶ 20. Regarding patent eligibility, ConGlobal alleges that the claims "constitute significantly more than any abstract idea by incorporating multiple components in a novel, non-obvious combination that confers a technical advancement by utilizing cameras,

computing components, and algorithms incorporating machine learning capability to more accurately and efficiently identify containers than was capable in the past." *Id.* at ¶ 21. More specifically, ConGlobal alleges the claims solve the problem of an inability to track yard assets due to inaccurate or insufficient imaging by "arranging and operating the physical components in a particular manner, coupled with the use of specialized algorithms along with machine learning to accurately and efficiently identify shipping assets in real time." *Id.* at 22. ConGlobal then alleges that the claims "are also not directed to mere well-known, routine, or conventional activity." *Id.* at ¶ 25.

II. LEGAL STANDARD

Under Federal Rule of Civil Procedure 12(b)(6), a complaint should be dismissed if it "fail[s] to state a claim upon which relief can be granted." The Third Circuit has instructed district courts to conduct a "two-part analysis" in evaluating a motion to dismiss for failure to state a claim. *Fowler v. UPMC Shadyside*, 578 F.3d 203, 210 (3d Cir. 2009). First, the district court must separate the factual and legal elements of the claims. *Id*. That is, the court "must accept all of the complaint's well-pleaded facts as true, but may disregard any legal conclusions" set forth in the complaint. *Id*. at 210–11. Second, the court "must then determine whether the facts alleged in the complaint are sufficient to show that the plaintiff has a 'plausible claim for relief.'" *Id*. at 211 (quoting *Ashcroft v. Iqbal*, 556 U.S. 662, 679 (2009)).

Patent eligibility under 35 U.S.C. § 101 is a question of law, based on underlying facts. *See Aatrix Software, Inc. v. Green Shades Software, Inc.*, 882 F.3d 1121, 1125 (Fed. Cir. 2018); *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1364–65 (Fed. Cir. 2018). Disputes over eligibility can be, and frequently are, resolved on a Rule 12(b)(6) or Rule 12(c) motion "where the undisputed facts, considered under the standards required by that Rule, require a holding of ineligibility under the

substantive standards of law." *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1166 (Fed. Cir. 2018) (citing cases).

III. DISCUSSION

A. Section 101: General Principles

Section 101 of the Patent Act defines patent-eligible subject matter. It states: "Whoever invents or discovers any new and useful process, machine, manufacture or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title." 35 U.S.C. § 101. The Supreme Court has interpreted that provision to carve out exceptions to that broad characterization of patentable subject matter for "[l]aws of nature, natural phenomena, and abstract ideas." *Alice Corp. Pty. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014) (quoting *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)).

The framework for determining whether a patent is directed to an unpatentable abstract idea is well settled. The Supreme Court's decision in *Alice* established the now-familiar two-step test for patentability in that context. The first step requires the court to examine the "focus" of the claim, i.e., its "character as a whole," in order to determine whether the claim at issue is directed to an "abstract idea." *SAP Am.*, 898 F.3d at 1167; *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1348 (Fed. Cir. 2015). The second step entails determining whether the claim contains an "inventive concept" that removes the claimed subject matter from the realm of abstraction. *Alice*, 573 U.S. at 217–18; *see also Mayo Collaborative Servs. v. Prometheus Lab'ys, Inc.*, 566 U.S. 66, 72–73 (2012); *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016).

1. Abstract Idea

Neither the Supreme Court nor the Federal Circuit has ventured a single, comprehensive definition of an "abstract idea." *See Alice*, 573 U.S. at 221 ("[W]e need not labor to delimit the

precise contours of the 'abstract ideas' category in this case."); *Elec. Power Grp.*, 830 F.3d at 1354 ("We need not define the outer limits of 'abstract idea.'"); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir. 2016) ("The Supreme Court has not established a definitive rule to determine what constitutes an 'abstract idea' sufficient to satisfy the first step of the *Mayo*/*Alice* inquiry. Rather, both this court and the Supreme Court have found it sufficient to compare claims at issue to those claims already found to be directed to an abstract idea in previous cases."); *Beteiro, LLC v. DraftKings Inc.*, 104 F.4th 1350, 1356 (Fed. Cir. 2024) ("[T]he decisional mechanism courts now apply [to Section 101 cases] is to examine earlier cases in which a similar or parallel descriptive nature can be seen.") (quoting *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1295 (Fed. Cir. 2016)). In place of a unitary test, what has emerged from the cases applying section 101 is a group of related principles that can be applied in gauging whether a patent claim is directed to an abstract idea. Those general principles that most directly apply to this case are the following:

First, the courts have characterized "method[s] of organizing human activity" as abstract. *See Alice*, 573 U.S. at 220; *BSG Tech LLC v. BuySeasons, Inc.*, 899 F.3d 1281, 1285 (Fed. Cir. 2018). For example, courts have identified fundamental and longstanding economic and business practices as abstract ideas. *See Alice*, 573 U.S. at 219; *SAP Am.*, 898 F.3d at 1168; *Intell. Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1313 (Fed. Cir. 2016). Such business practices can include relatively specific functions such as disseminating regionally broadcast content to users outside the region, *see Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1261–62 (Fed. Cir. 2016); classifying an image and storing the image based on its classification, *see In re TLI Commc'ns LLC Pat. Litig.*, 823 F.3d 607, 611 (Fed. Cir. 2016); or managing a bingo game, *see Planet Bingo, LLC v. VKGS LLC*, 576 F. App'x 1005, 1008 (Fed. Cir. 2014).

Second, applying that principle to patents that claim the use of computers in performing particular activities, the Supreme Court and the Federal Circuit have held that simply reciting the use of computers to perform activities that can readily be performed by humans does not make those activities patent eligible. *See Alice*, 573 U.S. at 223 ("[M]ere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention."); *BSG Tech*, 899 F.3d at 1285 ("If a claimed invention only performs an abstract idea on a generic computer, the invention is directed to an abstract idea at step one" of *Alice*.); *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1093 (Fed. Cir. 2016); *TLI*, 823 F.3d at 612; *Enfish*, 822 F.3d at 1338. That includes activities that can be performed by the human mind or with pencil and paper. *See Broadband iTV, Inc. v. Amazon.com, Inc.,* 113 F.4th 1359, 1367 (Fed. Cir. 2024); *In re Killian*, 45 F.4th 1373, 1379 (Fed. Cir. 2022); *Personal Web Techs. LLC v. Google LLC*, 8 F.4th 1310, 1316 (Fed. Cir. 2021); *Elec. Power Grp.*, 830 F.3d at 1354 ("[W]e have treated analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes within the abstract-idea category.").

Third, as applied to computer applications, courts have looked to whether the claim in question is directed to an improvement in computer technology as opposed to simply providing for the use of a computer to perform "tasks for which a computer is used in its ordinary capacity." *Enfish*, 822 F.3d at 1336. The Supreme Court made that point in *Alice*, where it stated that the purported invention at issue in that case was not patent eligible because the claimed methods did not "improve the functioning of the computer itself" or "effect an improvement in any other technology or technical field." *Alice*, 573 U.S. at 225; *see also Affinity Labs of Tex.*, 838 F.3d at 1262. The Federal Circuit has restated that principle repeatedly, and it is by now well established in the law of patent eligibility. *See, e.g., United Servs. Auto. Ass'n v. PNC Bank N.A.*¸ 139 F.4th 1332, 1337 (Fed. Cir. 2025);

Recentive Analytics, Inc. v. Fox Corp., 134 F.4th 1205, 1212 (Fed. Cir. 2025); *Chewy, Inc. v. Int'l Bus. Machs. Corp.*, 94 F.4th 1354 1366 (Fed. Cir. 2024); *Trinity Info Media, LLC v. Covalent, Inc.*, 72 F.4th 1355, 1362–63 (Fed. Cir. 2023); *Int'l Bus. Machs. Corp. v. Zillow Grp.*, 50 F.4th 1371, 1377–78 (Fed. Cir. 2022); *Universal Secure Registry LLC v. Apple Inc.*, 10 F.4th 1342, 1357 (Fed. Cir. 2021); *Yu v. Apple Inc.*, 1 F.4th 1040, 1044 (Fed. Cir. 2021); *TecSec, Inc. v. Adobe, Inc.,* 987 F.3d 1278, 1293 (Fed. Cir. 2020) (citing numerous cases); *Customedia Techs., LLC v. Dish Network Corp.*, 951 F.3d 1359, 1363 (Fed. Cir. 2020); *FairWarning IP*, 839 F.3d at 1095; *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1316 (Fed. Cir. 2016).

Where the claims at issue provide for an improvement in the operation of a computer, such as a new memory system, a new type of virus scan, or a new type of interface that makes a particular computer function more accessible, the Federal Circuit has found the claims to be patent eligible. *See, e.g., Data Engine Techs. LLC v. Google LLC*, 906 F.3d 999, 1007–11 (Fed. Cir. 2018) (methods for making electronic spreadsheets more accessible); *Core Wireless Licensing S.A.R.L. v. LG Elecs., Inc.*, 880 F.3d 1356, 1361–63 (Fed. Cir. 2018) (improved display devices); *Finjan, Inc. v. Blue Coat Sys., Inc.*, 879 F.3d 1299, 1303–06 (Fed. Cir. 2018) (novel method of virus scanning); *Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253, 1258–60 (Fed. Cir. 2017) (improved computer memory system).

Fourth, also in the field of computer-related applications, the Federal Circuit has held that claims "directed to collection of information, comprehending the meaning of that collected information, and indication of the results, all on a generic computer network operating in its normal, expected manner" are abstract. *Zillow Grp.*, 50 F.4th at 1377–78 (quoting *In re Killian*, 45 F.4th 1373, 1380 (Fed. Cir. 2022)); *see also SAP Am.*, 898 F.3d at 1167 ("[C]laims focused on 'collecting information, analyzing it, and displaying certain results of the collection and analysis' are directed

to an abstract idea.") (quoting *Elec. Power Grp.*, 830 F.3d at 1353–54); *Trading Techs. Int'l, Inc. v. IBG, LLC*, 921 F.3d 1378, 1385 (Fed. Cir. 2019); *Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335, 1345 (Fed. Cir. 2018); *Fair Warning IP*, 839 F.3d at 1093.

Fifth, in determining whether a method claim is directed to an abstract idea, the Federal Circuit has focused on whether the claim is "purely functional and generic" in nature or is sufficiently concrete or specific to be directed to a patent-eligible process rather than a patent-ineligible result. *Alice*, 573 U.S. at 226. For example, in *SAP America*, 898 F.3d at 1167, the court asked whether the claim had "the specificity required to transform [it] from one claiming only a result to one claiming a way of achieving it." To answer that question, the Federal Circuit has directed courts to "look to whether the claims focus on a specific means or method, or are instead directed to a result or effect that itself is the abstract idea and merely invokes generic processes and machinery." *Two-Way Media Ltd. v. Comcast Cable Commc'ns, LLC*, 874 F.3d 1329, 1337 (Fed. Cir. 2017); *see also Hawk Tech. Sys., LLC v. Castle Realty, LLC*, 60 F.4th 1349, 1358 (Fed. Cir. 2023) (claims "lack 'sufficient recitation of *how* the purported invention improve[s] the functionality' of video surveillance systems and are 'recited at such a level of result-oriented generality that those claims amount[] to a mere implementation of an abstract idea") (quoting *Koninklijke KPN N.V. v. Gemalto M2M GmbH*, 942 F.3d 1143 (Fed. Cir. 2019)); *McRO*, 837 F.3d at 1314 ("We . . . look to whether the claims in these patents focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery."); *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1244 (Fed. Cir. 2016) (claim that "calls for the desired result of associating a customer's order with said customer, and does not attempt to claim any method for achieving that result" is ineligible); *see generally Diamond v. Diehr*, 450 U.S. 175, 182 n.7 (1981) (A patent may issue "for the means or method of producing a certain result or

effect, and not for the result or effect produced." (citation omitted)); *Corning v. Burden*, 56 U.S. 252, 268 (1853) (patents are granted "for the discovery or invention of some practicable method or means of producing a beneficial result or effect . . . and not for the result or effect itself."); *Le Roy v. Tatham*, 55 U.S. 156, 175 (1853) ("A patent is not good for an effect, or the result of a certain process" because such patents "would prohibit all other persons from making the same thing by any means whatsoever.").

Sixth, and relatedly, "the concern that drives" the judicial exceptions to patentability is "one of preemption." *Alice*, 573 U.S. at 216; *see also ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 766 (Fed. Cir. 2019); *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015). In determining whether a particular invention is directed to an abstract idea, it is therefore important to ask whether according patent protection to the claimed subject matter would have a broad preemptive effect on future innovation in the same field, *see Accenture Glob. Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1341 (Fed. Cir. 2013), something that is likely to occur in the case of claims that are directed to a function rather than to the means for achieving that function.

2. Inventive Concept

If the court determines that a claim is directed to an abstract idea, the court proceeds to *Alice* step two. That step requires the court "to examine the elements of the claim to determine whether it contains an 'inventive concept' sufficient to 'transform' the claimed abstract idea into a patent-eligible application." *Alice*, 573 U.S. at 221 (quoting *Mayo*, 566 U.S. at 72, 78–79).

The "inventive concept" is "an element or combination of elements that is 'sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.'" *Id.* at 217–18 (quoting *Mayo*, 566 U.S. at 72). Moreover, courts have emphasized that it is not sufficient merely to implement an abstract idea using "well-understood, routine, [and]

conventional activities previously known in the industry." *Coop. Ent., Inc. v. Kollective Tech., Inc.*, 50 F.4th 127, 130 (Fed. Cir. 2022) (quoting *Alice*, 573 U.S. at 225). That is, *Alice* step two requires the claimed invention to do more than combine known techniques that "yield[] only expected results." *Universal Secure Registry*, 10 F.4th at 1353. Instead, the claim or claims in question must "focus on a specific means or method that improves the relevant technology." *Weisner v. Google LLC*, 51 F.4th 1073, 1083 (Fed. Cir. 2022) (citations omitted). In particular, the Federal Circuit has asked whether the claim or claims at issue are "directed to a technological solution to a technological problem." *cxLoyalty, Inc. v. Maritz Holdings Inc.*, 986 F.3d 1367, 1378 (Fed. Cir. 2021); *see also BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1350–51 (Fed. Cir. 2016); *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257–58 (Fed. Cir. 2014).

The preemptive effect of the asserted claims is also a relevant consideration at *Alice* step two. In a recent case, the Federal Circuit explained the relationship between preemption and the presence of an inventive concept:

> We have explained that claims for methods that "improve[] an existing technological process" include an inventive concept at step two. *BASCOM*, 827 F.3d at 1350–51 (quoting *Alice*, 573 U.S. at 221, 223). And claims that "recite a specific, discrete implementation of the abstract idea" rather than "preempt[ing] all ways of" achieving an abstract idea using a computer may include an inventive concept. *Id.* at 1350. But claims to "an abstract idea implemented on generic computer components, without providing a specific technical solution beyond simply using generic computer concepts in a conventional way" do not pass muster at step two. *Id.* at 1352.

Killian, 45 F.4th at 1382 (cleaned up). Thus, whether the claims recite "a specific, discrete implementation of the abstract idea" rather than preempting all implementations of that idea is an appropriate consideration in the step two inquiry. *Id.*; *see also ChargePoint*, 920 F.3d at 769 n.4 ("We have also considered preemption at step two of the analysis. *See BASCOM Glob. Internet Servs*, 827 F.3d 1341, 1350 (Fed. Cir. 2016).").

B. Application

1. Representative Claim

Roboflow first argues that I need to analyze only claim 1 of the '148 patent and claim 1 of the '439 patent because for purposes of the section 101 analysis claim 1 of the '148 patent is representative of the remaining claims in the '148 patent as well as all the claims of the '183 patent, while claim 1 of the '439 patent is representative of the remaining claims in the '439 patent. Dkt. No. 16 at 6. ConGlobal disagrees that claim 1 of the '148 patent and claim 1 of the '439 patent are representative of the other claims in those patents.

Roboflow points out that claim 1 of the '148 patent is nearly identical to the other independent claims of that patent (claims 9 and 16), except that claim 1 is directed to the control system, claim 9 is directed to the server in the control system, and claim 16 is directed to the method for using the control system. Dkt. No. 16 at 7. Roboflow argues that the dependent claims add generic components or additional steps that do not affect the section 101 inquiry. *Id*.

ConGlobal does not dispute that claim 1 is representative of the other independent claims. Dkt. No. 22 at 7. ConGlobal also does not specifically address either claim 9 or claim 16 in its opposition brief. "If the patent owner fails to meet its obligation to make non-frivolous arguments in opposition to the representative claim contention, it forfeits its right to argue that the claims in the group identified by the movant are patent eligible even if the representative claim is ultimately found to be ineligible." *Mobile Acuity Ltd. v. Blippar Ltd.*, 110 F.4th 1280, 1290 (Fed. Cir. 2024). Accordingly, and "[b]ecause the system claim and method claim contain only minor differences in terminology but require performance of the same basic process," I will treat claim 1 as representative of the other independent claims. *See Accenture Glob. Servs., GmbH*, 728 F.3d at 1344.

What ConGlobal does dispute is that claim 1 is representative of the claims that depend from it, because the dependent claims add limitations regarding the use of machine learning. Dkt. No. 22 at 7. Specifically, claim 4 requires the use of "optical character recognition"; claim 5 requires the use of "machine learning"; claim 6 specifies that the machine learning of claim 5 is " a convolutional neural network (CNN) trained to predict a location of text sequences in the railyard image data"; and claim 7 adds a second machine learning model, which is "a recurrent neural network (RNN) for scanning the text sequences and predicting a sequence of missing characters." ConGlobal has thus identified differences between claim 1 and claims 4 through 7 that could potentially be material to the section 101 inquiry.

The other claims that depend from claim 1 add a geolocation device (claim 2), a means for monitoring traffic violations (claim 3), and specific components of the railcar (claim 8). ConGlobal does not argue that those dependent claims add any limitations that are material to the section 101 analysis, nor does ConGlobal address those dependent claims in its opposition. Based on my own review, those claims do not add any limitations that are material to the section 101 analysis below. Accordingly, I conclude that claims 1 and 4–7 are representative of the other claims in the '148 patent, and I will proceed by focusing on those claims. *See Mobile Acuity*, 110 F.4th at 1290; *Affinity Labs of Texas, LLC v. Amazon.com Inc.*, 838 F.3d 1266, 1268 n.2 (Fed. Cir. 2016) (treating a claim as representative when plaintiff had "not shown how independent claims 1 and 8 differ materially from claim 14" nor presented "substantive argument as to the separate patentability of those claims").

Regarding the '183 patent, Roboflow argues that claim 1 of the '148 patent is representative because the differences between claim 1 of the '148 patent and the claims in the '183 patent are only (1) eliminating the requirement that the proximity sensor be separate from the image sensor, (2) moving the limitation that certain information regarding the railcars be stored in a database to

dependent claims, and (3) other miscellaneous cosmetic changes. Dkt. 16 at 7. In response, ConGlobal asserts that the independent claims of the '183 patent "are different" from the claims of the '148 patent and that the dependent claims add specific machine learning limitations. Dkt. 22 at 7. But ConGlobal does not identify any specific differences between the claims of the '183 patent and claim 1 of the '148 patent, much less any differences that are germane to the section 101 analysis. To the contrary, despite asserting that there are differences between the claims, ConGlobal has addressed the claims of the '148 patent and the claims of the '183 patent collectively in its briefing. *See id*. at 10–13. Therefore, ConGlobal has failed to make a non-frivolous argument that claim 1 of the '148 patent is not representative of the claims in the '183 patent. Moreover, based on my own review, I agree with Roboflow regarding the absence of material differences between those claims, and that those differences do not affect the section 101 inquiry. Thus, I conclude that claims 1 and 4–7 of the '148 patent are representative of the claims in the '183 patent. *See Mobile Acuity*, 110 F.4th at 1290; *Affinity Labs*, 838 F.3d at 1268 n.2.

Finally, regarding the '439 patent, Roboflow argues that claim 1 is representative of the other claims. Roboflow explains that claim 1 is directed to the control system, independent claim 12 is directed to the server, and independent claim 16 is directed to the method for using the control system. Dkt. No. 16 at 8. Roboflow also explains that the dependent claims add generic components that perform their basic functions to achieve the steps recited in the independent claims or generic steps. *Id.* In response, ConGlobal argues that the dependent claims add significant limitations, and it identifies those limitations as requiring the use of convolutional and recurrent neural networks. Dkt. No. 22 at 7. Those limitations are recited in dependent claim 8. Because ConGlobal does not address the other independent claims or any of the dependent claims other than claim 8, and because

I agree with Roboflow that the other claims add nothing that would affect the section 101 analysis, I will address only claims 1 and 8 of the '439 patent. *See Content Extraction*, 776 F.3d at 1348.

2. *Alice* Step One

a) Analysis of the '148 patent and '183 patent

The *Alice* step one inquiry requires consideration of "what the patent asserts to be the focus of the claimed advance over the prior art." *Yu*, 1 F.4th at 1043 (citation omitted); *Koninklijke KPN*, 942 F.3d at 1149; *Affinity Labs of Tex.*, 838 F.3d at 1257. Roboflow argues that claim 1 of the '148 patent is directed to detecting and processing data to monitor and position railcars. Dkt. No. 16 at 9. ConGlobal responds that the claim is directed to a technological improvement to a technological system, namely using specific machine learning algorithms to create a database using railyard image data. Dkt. No. 22 at 10 ("The Asserted Patents describe advances over conventional systems and technological advancements, including specific machine learning algorithms."), 11 ("Claim 1 of the #148 Patent includes a server operating the non-conventional algorithms and creating a database using 'an image sensor configured to generate railyard image data.'"). I agree with Roboflow.

Beginning with the claim language, the control system recited in claim 1 of the '148 patent has sensors to generate image data; i.e., the system gathers data. '148 patent, col. 19, ll. 13–15 & 26–29. The system also has a server to generate a database using that data; i.e., the system processes data. *Id*. at col. 19, ll. 19–22. The system then uses that data to identify and position railcars on railroad tracks; i.e., the system executes an action based on the processed data. *Id*. at col. 19, ll. 23–25 & 30–31. In short, the system gathers data, processes that data, and then uses that data to execute the action of positioning railcars. That conclusion is consistent with the specification, which explains that the invention includes "sensors configured to generate railyard sensor data," a server to "generate a database . . . based upon the railyard sensor data," and controls to "position the sets of railcars" in

the railyard "based upon the railyard sensor data." *Id*. at col. 1, ll. 44–55. Accordingly, the claim is directed to detecting and processing data to monitor and position railcars, which is an abstract idea for the reasons set forth below.

i. The Federal Circuit has "treated analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes within the abstract-idea category," and has ruled that "merely presenting the results of abstract processes of collecting and analyzing information, without more . . . is abstract as an ancillary part of such collection and analysis." *Elec. Power Grp.*, 830 F.3d at 1353–54; *see also United Servs. Auto. Ass'n*, 139 F.4th at 1337; *Trinity Info Media*, 72 F.4th at 1362; *FairWarning IP*, 839 F.3d at 1093. In the *Electric Power Group* case, the Federal Circuit held that collecting data, analyzing that data, and displaying information based on that analysis constitutes an abstract idea. The method claimed in this case begins with collecting and storing data about railcars, analyzing that data, and producing an action based on the analysis of that data. That sequence of steps parallels the sequence of steps involved in the *Electric Power* case and its progeny.

ii. The functions recited in claim 1 of the '148 patent, moreover, can all be performed by a human. A human can survey a railyard and inspect each railcar. The surveyor can record the characteristics of each railcar on a piece of paper to create a database of the location of the railcars. The surveyor can then identify the railcars from the recorded information. Finally, the surveyor can direct the positioning of the railcars within the railyard based on the recorded information. Positioning objects based on their identity, which is deduced based on visual characteristics that the human observes, is a fundamental human activity, which is an earmark of abstraction. *See Alice*, 573 U.S. at 220.

Other courts have reached the same conclusion with regard to similar claims. *See PerformancePartners, LLC v. FlashParking, Inc.*, 697 F. Supp. 3d 678, 687 (W.D. Tex. 2023) (finding that "managing vehicle access to secured parking areas" was a method of organizing human activity); *PerformancePartners LLC v. NextGen Parking, LLC*, No. 3:23-CV-0564, 2024 WL 1317800, at *7 (N.D. Tex. Mar. 26, 2024) ("collecting information at a vehicle entrance, storing that information, and then comparing that information against information collected at a vehicle exit can be done by a person with a pen and paper"); *RFC Lenders of Texas, LLC v. Smart Chem. Sols., LLC*, 743 F. Supp. 3d 911, 921 (W.D. Tex. 2024) (finding that "detecting, transmitting, and processing data to monitor vehicles" could be done by a human); *GeoComply Sols. Inc. v. Xpoint Servs. LLC*, No. CV 22-1273, 2023 WL 1927393, at *7 (D. Del. Feb. 10, 2023) (finding that "using multiple sources of information to verify a person's location" was a human activity), *aff'd*, 2024 WL 4717268 (Fed. Cir. Nov. 8, 2024); *Brunswick Corp. v. Volvo Penta of the Americas, LLC*, 640 F. Supp. 3d 498, 509 (E.D. Va. 2022) ("it cannot be disputed that maintaining the position of a marine vessel at a selected global position is an abstract idea reflecting a longstanding human practice"); *TriDim Innovations LLC v. Amazon.com, Inc.*, 207 F. Supp. 3d 1073, 1079 (N.D. Cal. 2016) (finding that "retrieving and arranging documents by relative frequency of use" was abstract).

The fact that claim 1 of the '148 patent employs various computer components to perform the recited functions does not make the claim any less abstract. To the contrary, the two recited computer components—a server and sensors—are generic, and the claim provides no information about how to implement or employ those components. *See iLife Techs., Inc. v. Nintendo of Am., Inc.*, 839 F. App'x 534, 537 (Fed. Cir. 2021). And using generic components in a specific context, such as to position railcars, does not save the claim from abstractness. *See ChargePoint,* 920 F.3d at 768 (holding that "communication over a network for interacting with a device, applied to the context of

electric vehicle charging stations" is an abstract idea); *SAP Am.*, 898 F.3d at 1169 ("[L]imitation of the claims to a particular field of information . . . does not move the claims out of the realm of abstract ideas.").

iii. The functional nature of claim 1 of the '148 patent provides further support for the conclusion that the claim is directed to an abstract idea. Claim 1 enables the positioning and identification of railcars by generating and analyzing data, but the claim does not provide any elaboration for how the steps are implemented. Even the hardware components recited in the claim are defined in functional terms, as "image sensor" and "proximity sensor." Therefore, the claim is effectively functional in nature, as it encompasses a wide range of processes that could be employed to use visual information about a railcar to identify and position that railcar. *See Affinity Labs of Tex.*, 838 F.3d at 1260 ("Nothing in the flow charts or the text of the specification provides any details regarding the manner in which the invention accomplishes the recited function."); *Beteiro*, 104 F.4th at 1356 ("[T]he claims are drafted using largely (if not entirely) result-focused functional language, containing no specificity about how the purported invention achieves those results. Claims of this nature are almost always found to be ineligible for patenting under Section 101."); *Elec. Power Grp.*, 830 F.3d at 1356 ("[T]he essentially result-focused, functional character of claim language has been a frequent feature of claims held ineligible under § 101."); *Two-Way Media*, 874 F.3d at 1337 (claim described functional results, but did not "sufficiently describe how to achieve th[o]se results in a non-abstract way"); *Univ. of Fla. Rsch. Found., Inc. v. Gen. Elec. Co.*, 916 F.3d 1363, 1368 (Fed. Cir. 2019) (Claims are directed to an abstract idea because they do not explain "how the drivers do the conversion that [the plaintiff] points to.... The mere function of converting is not a 'specific improvement to the way computers operate.'" (citation omitted)); *Cap. One Fin. Corp.*, 850 F.3d at

1342 ("[T]he claim language here provides only a result-oriented solution, with insufficient detail for how a computer accomplishes it.").

In response, ConGlobal points to disclosures in the specification identifying particular machine learning algorithms. Dkt. No. 22 at 10–13. Although ConGlobal is correct that the specification contemplates the use of specific types of algorithms, *e.g.*, '148 patent, col. 7, ll. 29–37 (OCR, convolutional neural network, and recurrent neural network), the patent does not explain how to implement those algorithms, much less claim technological improvements to those machine learning algorithms. Instead, the few claims that do identify such algorithms merely direct that those algorithms be used, without defining how they are to be used to achieve the claimed objectives. *Id*., claim 4 (adding "perform optical character recognition"), claim 5 (adding "perform machine learning"), claim 6 (adding "execute a first machine learning model comprising a convolutional neural network (CNN) trained to predict a location"), and claim 7 (adding "execute a second machine learning model comprising a recurrent neural network (RNN) for scanning . . . and predicting"). The Federal Circuit has recently rejected the argument that the applying machine learning to a new field of use makes the claims nonabstract. *Recentive Analytics*, 134 F.4th at 1213 (holding claims were abstract when "the only thing the claims disclose about the use of machine learning is that machine learning is used in a new environment"). The court's analysis in that case is directly applicable here.

Even if there were something more specific in the specification that suggests how to implement the machine learning algorithms, the Federal Circuit has emphasized that in analyzing the patent eligibility of a claim, it is important to focus on the language of the claim. While the specification can be consulted to determine the meaning of particular terms used in the claim, it is the claim itself that must be patent eligible. *See United Servs. Auto. Ass'n*, 139 F.4th at 1337 ("We focus on the claims, not the specification, to determine eligibility, because 'the level of detail in the

specification does not transform a claim reciting only an abstract concept into a patent-eligible system or method."); *Accenture Glob. Servs., GmbH*, 728 F.3d at 1345 (same); *Hawk Tech. Sys., LLC v. Castle Retail, LLC*, 60 F.4th 1349, 1357 (Fed. Cir. 2023) ("The analysis at step one must focus on the claim language." (citation omitted)). Features that are not claimed "are irrelevant as to step 1 or step 2 of the *Alice* analysis." *Am. Axle & Mfg., Inc. v. Neapco Holdings LLC*, 967 F.3d 1285, 1293 (Fed. Cir. 2020); *ChargePoint*, 920 F.3d at 769 ("[A]ny reliance on the specification in the § 101 analysis must always yield to the claim language. . . . [T]he specification cannot be used to import details from the specification if those details are not claimed."). ConGlobal has identified nothing in the claims that instructs how to implement the machine learning algorithms.

iv. ConGlobal next argues that claim 1 of the '148 patent is directed to an improvement in computer technology. Dkt. No. 22 at 10. As noted above, it is well established that while an improvement in computer technology may be patentable, an invention that simply employs a computer as a tool is not thereby rendered patent eligible. The claims addressed in the case law cited by ConGlobal fall in the first category, while claim 1 of the '148 patent falls into the latter category. In *Enfish*, the Federal Circuit explained that the claims were directed to a self-referential computer database that had numerous advantages over the conventional relational database; the claim did not simply recite the use of well-known computer capabilities in service of other functions. *See* 822 F.3d at 1333. In *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1258 (Fed. Cir. 2014), the Federal Circuit rejected the argument that the claims in that case "broadly and generically claim 'use of the Internet' to perform an abstract business practice (with insignificant added activity)." Instead, the court explained, the claims "specify how interactions with the Internet are manipulated to yield a desired result—a result that overrides the routine and conventional sequence of events ordinarily triggered by the click of a hyperlink," *id.*, and that "the claimed system generates and directs the

visitor to the above-described hybrid web page that presents product information from the third-party and visual 'look and feel' elements from the host website," *id.* at 1259.

Other Federal Circuit decisions that have followed the court's analysis in *Enfish* further demonstrate the difference between the claim at issue, which merely employs a computer as a tool, and claims that improve the operation of a computer. *See McRO*, 837 F.3d at 1314 (claims directed to a specific asserted improvement in computer animation, i.e., the "automatic use of rules of a particular type" held patentable); *Visual Memory*, 867 F.3d at 1259 (claims directed to "an improved computer memory system, not to the abstract idea of categorical data storage" when claims require a memory system "'having one or more programmable operational characteristics, said characteristics being defined through configuration by said computer based on the type of said processor,' and 'determin[ing] a type of data stored by said cache'" held patentable); *Finjan*, 908 F.3d at 1305 (claims recite specific steps in a virus scanning method that accomplish the desired result—i.e., generating a security profile that identifies suspicious code and linking it to a downloadable held patentable); *Ancora*, 908 F.3d at 1348–49 (claims recite a "specific technique that departs from earlier approaches to solve a specific computer problem [vulnerability of license-authorized software to hacking:] . . . [a] structure containing a license record is stored in a particular modifiable, non-volatile portion of the computer's BIOS, and the structure in that memory location is used for verification by interacting with the distinct computer memory that contains the program to be verified" held patentable); *SRI*, 930 F.3d at 1303 (claims directed to "using a specific technique—using a plurality of network monitors that each analyze specific types of data on the network and integrating reports from the monitors—to solve a technological problem arising in computer networks: identifying hackers or potential intruders into the network" held patentable); *Weisner*, 51 F.4th at 1085–86 (claims "concern a new technique for prioritizing the results of a

conventional search" that constitutes "more than just the concept of improving a web search using location history—it is a specific implementation of that concept" held patentable).

ConGlobal argues that claim 1 of the '148 patent provides "a safer and cheaper alternative to conventional approaches," and that it does "not simply automate human activity" but rather "improve[s] upon pre-existing technological functionality by achieving outcomes unachievable by humans or conventional activity." Dkt. No. 22 at 11. But the fact that positioning railcars can be more safely and cheaply executed with the aid of computer components and machine learning algorithms does not convert the abstract idea into one that is patent eligible. *See Recentive Analytics*, 134 F.4th at 1215 ("[T]he claimed methods are not rendered patent eligible by the fact that (using existing machine learning technology) they perform a task previously undertaken by humans with greater speed and efficiency than could previously be achieved. We have consistently held, in the context of computer-assisted methods, that such claims are not made patent eligible under § 101 simply because they speed up human activity."); *Content Extraction*, 776 F.3d at 1346; *DealerTrack, Inc. v. Huber*, 674 F.3d 1315, 1333 (Fed. Cir. 2012). Accordingly, claim 1 of the '148 patent clearly claims using a computer as a tool rather than claiming an improvement to computer functionality. *Zillow*, 50 F.4th at 1378 ("We have repeatedly held claims 'directed to collection of information, comprehending the meaning of that collected information, and indication of the results, all on a generic computer network operating in its normal, expected manner' to be abstract." (citing *Killian*, 45 F.4th at 1380 and *Cap. One Fin. Corp.*, 850 F.3d at 1340)).

ConGlobal asserts that the dependent claims in the '148 patent must be separately analyzed because they add details regarding the machine learning algorithms. Dkt. No. 22 at 7. As noted above, however, those claims merely identify a known algorithm and instruct applying the algorithm. *See* '148 patent, claims 4–7. The dependent claims do not offer an improvement to the algorithm.

Therefore, those claims are akin to the claims at issue in *Recentive*, which did not claim machine learning itself nor an improvement to a machine-learning algorithm, but rather claimed the use of machine learning in a new context. 134 F.4th at 1212–13. The use of machine learning did not render the claims at issue in *Recentive* patent eligible, and use of machine learning here likewise does not render dependent claims 4 through 7 patent eligible.

ConGlobal responds to *Recentive* by arguing that the claimed machine learning improves the technological process and that machine learning is claimed with sufficient detail regarding how to achieve the asserted improvement. Dkt. No. 22 at 9. The claims in *Recentive*, ConGlobal argues, recited only generic machine learning models lacking any specific operation. *Id.* ConGlobal's argument, however, lacks any specifics, as ConGlobal does not identify what, if anything, in the claims discloses how to achieve the asserted improvement. And it is readily apparent from a review of the claims that they do not claim an improvement to machine learning algorithms, but merely make use of known algorithms. *See* '148 patent, claim 5 ("service is configured to perform machine learning), claim 6 ("server is configured to execute a first machine learning model comprising a convolutional neural network (CNN) trained to predict a location of text sequences in the railyard image data"), and claim 7 ("server is configured to execute a second machine learning model comprising a recurrent neural network (RNN) for scanning the text sequences and predicting a sequence of missing characters"). As was the case in *Recentive*, these claims "rely on the use of generic machine learning technology in carrying out" the claimed invention "rather than claiming a specific way that the machine learning algorithm is improved." *See* 134 F.4th at 1212–13. That conclusion is further supported by ConGlobal's reliance on the specification's disclosure of nine machine learning "engines," none of which are claimed and none of which ConGlobal asserts that it invented or improved upon. *See* Dkt. No. 22 at 12–13.

Finally, ConGlobal cites *Thales Visionix, Inc. v. United States*, 850 F.3d 1343 (Fed. Cir. 2017), and *Contour IP Holding LLC v. GoPro, Inc.*, 113 F.4th 1373 (Fed. Cir. 2024), as support for the argument that its claims are not abstract. Dkt. No. 22 at 17–18. The claims in *Thales* and *Contour IP*, however, are quite different from the claims at issue here. In *Thales*, the claims were directed to "a particular configuration of inertial sensors." 850 F.3d at 1349. Here, the claims require no particular configuration of any of the physical components. In *Contour IP*, the court found that the claims "require specific, technological means—parallel data stream recording with the low-quality recording wirelessly transferred to a remote device—that in turn provide a technological improvement to the real time viewing capabilities of a POV camera's recordings on a remote device." 113 F.4th at 1379. In contrast, as explained above, the claims in this case recite merely the use of conventional technology as opposed to claiming a technological improvement.

In sum, based on the principles that courts have developed for testing whether a claim is drawn to an abstract idea, as well as analysis of the numerous cases that have addressed the issue of patent eligibility in the field of data collection and processing, it is apparent that claim 1 is directed to an abstract idea under step one of the *Alice* test, and claims 4 through 7 of the '148 patent do not add anything that suffices to render the patents not abstract.

b) Analysis of the '439 patent

Claim 1 of the '439 patent is quite similar to claim 1 of the '148 patent. The invention recited in claim 1 of the '439 patent employs sensors to generate data, specifically image data, '439 patent, col. 24, ll. 53–54 & col. 25, ll. 1–2; it then generates a database based on that data, *id.* at col. 24, ll. 62–63; identifies a shipping asset based on the image data, *id*. at col. 25, ll. 4–6; and it then positions the asset at a location based on the sensor data, *id*. at col. 25, ll. 246–34. The claim is in some respects broader than claim 1 of the '148 patent because it replaces the term "railcar" with the term "shipping

assert"; it replaces the term "railyard" with the term "inventor management facility"; and it replaces the term "remote control locomotive" with the term "vehicle." As the dependent claims make clear, those terms used in claim 1 of the '439 patent are broader than the terms used in claim 1 of the '148 patent. *See* '439 patent, claim 2 (inventory management system includes a railyard), claim 3 (shipping assert includes a railcar), claim 4 (vehicle includes a remote control locomotive). But in other ways, claim 1 of the '439 patent is narrower than claim 1 of the '148 patent because it incorporates certain limitations that are recited in the dependent claims of the '148 patent. Those limitations are: (1) the use of optical character recognition, *compare* '439 patent, col. 25, ll. 7–15, *with* '148 patent, claim 4; (2) the use of machine learning, *compare* '439 patent, col. 25, ll. 16–18, *with* '148 patent, claim 5; (3) the use of a neural network trained to predict a location of text sequences, *compare* '439 patent, col. 25, ll. 19–21, *with* '148 patent, claim 6; (4) the use of a neural network trained to scan text sequences and predict a sequence of missing characters, *compare* '439 patent, col. 25, ll. 22–25, *with* '148 patent, claim 7; and (5) the use of a geolocation device to transmit a geolocation, *compare* '439 patent, col. 25, ll. 44–51, *with* '148 patent, claim 2.

As an initial matter, the core elements of claim 1 of the '439 patent—collecting image data, generating a database, identifying assets using image data, and positioning the assets—are abstract for the same reasons that claim 1 of the '148 patent is abstract, as discussed above. The fact that claim 1 of the '439 patent uses the broader terms "shipping asset," "inventory management facility," and "vehicle" does not change that analysis. *See ChargePoint,* 920 F.3d at 768; *SAP Am.*, 898 F.3d at 1169. Second, the incorporation of the machine learning limitations and the geolocation device does not render claim 1 of the '439 patent non-abstract, for the same reasons that the incorporation of those same limitations does not render the dependent claims of the '148 patent non-abstract, as

explained above. *See Recentive Analytics*, 134 F.4th at 1213 (machine learning limitations); *GeoComply*, 2023 WL 1927393, at *7 (location limitations).

ConGlobal acknowledges that claim 1 of the '439 patent claims the same features as claim 1 of the '148 patent. *See* Dkt. No. 22 at 14 ("Claim 1 of the #439 Patent claims the features described above (*supra* at § V.B.2.a. [addressing the '148 patent])."). But in arguing for the patent eligibility of claim 1 of the '439 patent, ConGlobal focuses on the additional limitation regarding the vehicles in which a server "is configured to transmit one or more operational values to the vehicle to position the shipping asset at a predetermined location within the inventory management facility based upon the sensor data," and is configured to track "the shipping asset within the inventory management facility based on the at least one of the generated text string for the shipping asset, the determined color of . . . the shipping asset, or the generated logo image data for the shipping asset, or the combination of two or more thereof." *Id.*

ConGlobal explains that the vehicle can include a "terminal tractor," which can "autonomously traverse the yard, automatically capturing container information." *Id.* at 13–14. Similarly, ConGlobal explains that the tractors "allow for ingestion of Real-Time Streaming Protocol streams that, on a frame-by-frame basis, use a multiplexer module to join raw image data from each tractor sensor with the geolocation data, detection modules, and an additional machine learning algorithm to match heavily weighted codes and the corresponding frames to the associated geolocation device." *Id.* at 15. ConGlobal concludes that claim 1 of the '439 patent provides a technological solution to a technological problem because it allows for "(i) updating the inventory in real time (ii) overcoming problems using conventional non-automated techniques, which can become stale within minutes after data input; (iii) reducing latency and bandwidth consumption; (iv) improving worker safety due to reduced potential for collisions and yard accidents; (v) executing

work orders and building a container terminal map in real time, via the collection of geolocation data on the tractor; and (vi) updating customers in real time." *Id.* (citations omitted).

The problem for ConGlobal is that none of those features are recited in any claim. Although ConGlobal identifies places in the specification that, it argues, disclose those features, recitation in the specification is insufficient to render the claims non-abstract if the features are not claimed. *See United Servs. Auto. Ass'n*, 139 F.4th at 1337; *Accenture Glob. Servs. GmbH*, 728 F.3d at 1345; *Hawk Tech.*, 60 F.4th at 1357; *Am. Axle*, 967 F.3d at 1293; *ChargePoint*, 920 F.3d at 769. Moreover, nothing in the specification, much less anything in the claims, teaches how any of those features are implemented. Rather, the specification simply assumes that such features can be executed. *See* '439 patent, col. 20, ll. 26–28 ("Helpfully, this inventory is updated in real time . . ."), col. 22, ll. 4–6 ("by moving the yard check function to the terminal tractor 303a-303c, inventory updates are continuous and inherently safer"), col. 22, ll. 18–19 ("fully automated management of the plurality of containers 304a-304n is possible"). And in other places the specification suggests that those functions can be performed using known technology. *Id.* at col. 19, ll. 46–49 (a server can use "Microsoft Azure, Amazon Web Services, or Google Cloud Platform"), col. 20, ll. 5–7 ("wireless transceiver 312 may comprise a cellular transceiver, or a WLAN transceiver (e.g. WiFi, WiMAX)"), and col. 20, ll. 42–44 ("onboard tractor sensors 306a-306c may comprise a FLEXIDONE IP starlight 8000i (as available from Rober Bosch LLC)"). Accordingly, the "vehicle" aspect of the claim is best understood as claiming the use of technology as opposed to an improvement to technology. *Zillow*, 50 F.4th at 1378; *Cap. One Fin. Corp.*, 850 F.3d at 1341 ("Although [claimed] data structures add a degree of particularity to the claims, the underlying concept embodied by the limitations merely encompasses the abstract idea itself of organizing, displaying, and manipulating data of particular documents.").

Finally, ConGlobal argues that the '439 patent faced a section 101 rejection during examination and that the rejection was overcome by adding hardware elements and machine learning models. Dkt. No. 22 at 8. Based on the examiner's allowance of the claims, ConGlobal contends that the claims should be held patent eligible. *Id.* The Federal Circuit, however, has explicitly rejected the argument that a patent examiner's consideration of section 101 issues shields the patent's claims from a section 101 challenge in district court. *See Beteiro*, 104 F.4th at 1359. In view of the substantial volume of binding case law indicating that the claims are abstract, I decline to defer to the examiner's conclusions regarding the abstract nature of the asserted claims.

3. Alice Step Two

ConGlobal asserts that even if the claims are directed to an abstract idea, they contain an inventive concept and therefore are patent eligible. But ConGlobal fails to articulate what that inventive concept is. *See* Dkt. No. 22 at 18–20. ConGlobal's most specific argument is that Roboflow "ignores the patents' detailed discussion concerning the operation of various algorithms (e.g., 'engines') operating under multiple machine learning models (e.g., R-CNN, CNN, and RNN) based on data generated from an unconventional arrangement of components." Dkt. No. 22 at 18. Although the specifications of the three patents in suit contain details regarding the algorithms that can be used, ConGlobal does not purport to have invented any of those machine learning models, nor has ConGlobal identified any specific arrangement of components that is unconventional.

Next, ConGlobal reprises its reliance on the decision of the Patent and Trademark Office to issue the asserted patents—in particular, the examiner's conclusion during prosecution that the claims in the applications were nonobvious. Adopting that reasoning, however, would insulate every issued patent from step two of the *Alice* inquiry. Accordingly, I reject that argument. *See Affinity Labs of Tex.*, 838 F.3d at 1263 (the fact that an invention might be novel "does not avoid the problem

of abstractness"); *SAP Am.*, 898 F.3d at 1163; *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016); *Symantec Corp.*, 838 F.3d at 1315. ConGlobal also argues that the asserted patents are "the exact types of patents the Federal Circuit sought to exclude from *Recentive*'s reach." Dkt. No. 22 at 20. I disagree. As explained with regard to *Alice* step one, claims that merely require the use of machine learning algorithms—as opposed to claiming improvements to the machine learning algorithms—fall into the category of a claim stating an abstract idea; simply directing that the abstract idea be implemented "through the application of machine learning" does not render the abstract idea patentable. *See Recentive Analytics*, 134 F.4th at 1215.

Finally, ConGlobal's complaint does not include any nonconclusory allegations that the claims contain an inventive concept. *See* Dkt. No. 1 at ¶ 25. Therefore, the complaint cannot be the basis for the motion to be denied at step two. *See Trinity Info Media*, 72 F.4th at 1366. And despite asserting that statements in the patent must be accepted as true at the pleading stage, ConGlobal does not identify anything in the specification indicating that the claims include an inventive concept such that they should survive a motion to dismiss under section 101. *See* Dkt. No. 22 at 19.

In short, ConGlobal has not identified, either its complaint or in its opposition to the motion to dismiss, any inventive concept that is set forth in the claims. Accordingly, the claims "do no more than claim the application of generic machine learning to new data environments, without disclosing improvements to the machine learning models to be applied, [and] are patent ineligible under § 101." *Recentive Analytics*, 134 F.4th at 1216.

Because the representative claims fail to satisfy both the first and second steps of the test for patent eligibility set forth by the Supreme Court and the Federal Circuit, Roboflow's motion to dismiss for patent ineligibility is granted.

C. Infringement

Roboflow separately challenges the sufficiency of ConGlobal's infringement allegations. Roboflow argues that ConGlobal has not mapped Roboflow's products to any of the various claim elements. Dkt. No. 16 at 19–20. ConGlobal responds that it is not required to plead infringement on an element-by-element basis, and that its infringement allegations sufficiently identify what features of Roboflow's Yard Management System infringe the asserted claims. Dkt. No. 22 at 20–21.

The Federal Circuit has held that a "plaintiff is not required to plead infringement on an element-by-element basis." *Bot M8 LLC v. Sony Corp. of Am.*, 4 F.4th 1342, 1352–53 (Fed. Cir. 2021). But a plaintiff must still make sufficient factual allegations "to show that the plaintiff has a plausible claim for relief." *Id*. "Accordingly, a plaintiff cannot assert a plausible claim for infringement under the *Iqbal/Twombly* standard by reciting the claim elements and merely concluding that the accused product has those elements. There must be some factual allegations that, when taken as true, articulate why it is plausible that the accused product infringes the patent claim." *Id*. What level of detail is necessary will depend on the facts of the case, such as the complexity of the technology and the nature of the accused device. *Id*.

ConGlobal explains that it has alleged that the accused system has (1) cameras and image capture devices that map to the claimed sensors, (2) yard vehicles and assets that map to the claimed remote control locomotives and shipping assets, (3) a server, (4) a database, (5) a way of controlling the vehicles and assets, and that the accused system performs machine learning on the senor data and uses vehicle transmitting geolocation data. Dkt. No. 22 at 21. I agree with ConGlobal that those allegations are sufficient to put Roboflow on notice as to what ConGlobal is alleging infringes the asserted claims.

Regarding the factual sufficiency of those allegations, ConGlobal alleges that Roboflow's website describes the accused system as passively collecting container location data from cameras and processing that data using various machine learning techniques to extract information, which is "functionality that mirrors and overlaps with the technology claimed." Dkt. No. 1 at ¶ 33; *see also id*. at ¶¶ 34 (screenshots of website), 36 (same), 38 (same), 35 (website URL). ConGlobal also cites a press release from Roboflow as support for its allegation that the systems practice the claimed technology. *Id*. at ¶ 37 & Exh. E.

"The plausibility standard 'does not impose a probability requirement at the pleading stage; it simply calls for enough facts to raise a reasonable expectation that discovery will reveal evidence' to support the plaintiff's allegations." *Nalco Co. v. Chem-Mod, LLC*, 883 F.3d 1337, 1350 (Fed. Cir. 2018) (citing *Twombly*, 550 U.S. at 556). ConGlobal has satisfied that standard by making sufficient factual allegations to suggest that discovery may reveal evidence to support is claim of infringement.

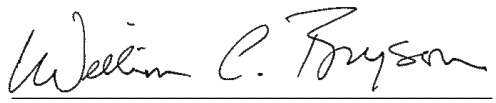
Roboflow also argues that ConGlobal's allegations are inconsistent with the asserted patent claims because ConGlobal has alleged that Roboflow passively collects data rather than positioning assets, as required by the claims. Dkt. No. 24 at 11. As I understand it, Roboflow's argument is as follows: ConGlobal has alleged that Roboflow engages in a passive behavior (passively collecting data), but the claims require active behavior (positioning assets). Passive behavior is the opposite of active behavior. Therefore, ConGlobal's allegations are facially inconsistent with the claim language, so ConGlobal has failed to state a claim for infringement.

The problem with that argument is that it assumes that Roboflow cannot both passively collect data and actively position assets, yet there is no basis for that assumption in the complaint. Indeed, although ConGlobal has alleged that Roboflow passively collects data, ConGlobal has not alleged that Roboflow does not also position assets. In other words, there is no basis from which to

conclude that Roboflow cannot both passively collect data and actively position assets. Accordingly, ConGlobal's complaint is not facially inconsistent with the claims. Roboflow's motion to dismiss is denied as to the sufficiency of ConGlobal's infringement allegations.

IT IS SO ORDERED.

SIGNED THIS 5th day of September, 2025.



WILLIAM C. BRYSON
UNITED STATES CIRCUIT JUDGE