IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

AON RE, INC., Plaintiff, v. ZESTY.AI, INC., Defendant.	Civil Action No. 25-201-JFM

DEFENDANT'S OPENING BRIEF IN SUPPORT OF ITS MOTION TO DISMISS UNDER 35 U.S.C. § 101

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I. INTRODUCTION

Insurance companies have always been in the business of estimating risk. Looking at an asset, categorizing the asset, and estimating the risk to that asset is a "fundamental economic practice long prevalent in our system of commerce." *See Bilski v. Kappos*, 561 U.S. 593, 611 (2010). So in the computer age, it is no surprise that insurance companies would automate the task of estimating risk by instructing a computer to do what humans in the business have always done. Here, the central premise behind the patents-in-suit is to look at a house, categorize the house, and estimate the risk to that house, just as human underwriters have always done, except with conventional "machine learning" computer algorithms.

But adding a computer does not make for a patentable invention. Where the supposed idea is no more than the use of the technology of the day to automate a longstanding human activity, it is patent-ineligible subject matter under 35 U.S.C. § 101. In other words, "if a patent's recitation of a computer amounts to a mere instruction to 'implement' an abstract idea 'on a computer,' that addition cannot impart patent eligibility." *Alice Corp. Pty. v. CLS Bank Int'l*, 573 U.S. 208, 223 (2014). That legal principle holds true even when the computer technology of the day happens to be "artificial intelligence" or "machine learning."

Lest there be any doubt, less than a month ago, the Federal Circuit confronted the "burgeoning" field of artificial intelligence and unanimously held that claims directed to the use of machine learning in a particular business environment are patent ineligible under § 101. *Recentive Analytics, Inc. v. Fox Corp.*, 134 F.4th 1205 (Fed. Cir. Apr. 18, 2025). The court of appeals answered a "question of first impression": "whether claims that do no more than apply established methods of machine learning to a new data environment are patent eligible." *Id.* at 1211. Its conclusion was unequivocal: "We hold that they are not." *Id.* That is, Judge Williams got it right when he dismissed an earlier case—in this District—on patents directed to the use of machine learning to optimize television schedules. *See id.* at 1210–11, 1215. Thus, this Court need not tread new ground; it need only follow Judge Williams's and the Federal Circuit's lead.

II. FACTUAL BACKGROUND

Plaintiff Aon Re, Inc. ("Aon") is an insurance company that provides "brokerage, analytics, administration, risk management, and other advisory services." Compl. ¶ 4. Aon filed this case on February 19, 2025, asserting claims of four patents, U.S. Patent Nos. 10,529,029 (the "'029 patent"), 10,650,285 (the "'285 patent"), 11,030,491 (the "'491 patent"), and 11,195,058 (the "'058 patent") (collectively, the "patents-in-suit"). *Id.* ¶¶ 9–13.[1]

Aon alleges that the patents are the result of "Aon's Pioneering Technology," but the intrinsic evidence does not support that claim. *Id.* at p. 4. Rather, the patents merely take advantage of advances in machine learning—the existing work of others—which lets computers "***replac[e] human identification*** of features with efficient algorithms." '029 patent, 2:3–4.[2] For instance, machine learning algorithms can perform image recognition to find the boundaries of a building or identify the type of roof. *E.g.*, *id.* at 7:61–8:4. The Complaint does not allege that Aon has ever actually used machine learning—much less successfully developed a machine learning product.

Aon's patents acknowledge that machine learning is preexisting technology. *See* '029 patent, 1:37–55. Machine learning is a way for software to ingest data and "automatically discover the representations needed for detection or classification" to achieve a kind of self-taught pattern recognition. *Id.* at 1:40–44. Machine learning "can be thought of as a way to ***automate*** predictive analytics." *Id.* at 1:37–40. Before machine learning was used in the insurance industry, it was already used for other image recognition applications such as "motion detection" and "medical

[1] The patents-in-suit are attached to the Complaint as Exhibits 1–4, respectively. *Id.*
[2] Throughout, this brief cites the specification of the '029 patent as illustrative of the other patents because all four patents are related and include the disclosures of the '029 specification.

diagnosis." *Id.* at 1:45. The supposed advancement here was to apply machine learning to the insurance industry: "[t]he inventors recognized that deep learning methodology could be applied to risk exposure … to analyze aerial imagery and automatically extract characteristics of individual properties," "providing fast and efficient automated classification of building styles and repair conditions." *Id.* at 2:6–11.

Like the specification, the claims are directed to analyzing images and assessing risk. Some recite "[a] method for ***automatically categorizing*** a condition of a characteristic of a property." '285 patent, claim 1; '029 patent, claim 1. Others recite "[a] system for ***automatically assessing*** features of a property location comprising a structure" or "[a] method for ***automatically assessing risk damage*** to a property." '491 patent, claims 1, 11; '058 patent, claim 1.

Accordingly, Aon does not accuse a specific machine learning technique or a particular computer algorithm. Rather, as evidence of supposed infringement, Aon points to the fact that Defendant Zesty.AI, Inc. ("ZestyAI") looks at images of houses and estimates risk. Specifically, Aon alleges that ZestyAI uses aerial imagery of houses to identify their rooftops and analyzes their condition (e.g., "Heavy Wear" or "Light Wear") and "Roof Shape." Compl. ¶¶ 86, 89. Aon further alleges that ZestyAI uses image recognition to assess "what's on that [parcel]" of real estate, such as a main building, a "secondary structure," "a pool," and "vegetation." Compl. ¶ 115.

Setting aside Aon's simplistic accusations, the real issue is apparently that ZestyAI succeeded where Aon has failed: not just having the bare idea of applying machine learning to the insurance industry, but actually doing the hard work of developing and implementing effective machine learning systems.

III. LEGAL STANDARDS

"Laws of nature, natural phenomena, and abstract ideas" cannot be patented under 35 U.S.C. § 101. *Alice*, 573 U.S. at 216. Abstract ideas include "task[s] previously undertaken by humans" that are being automated "with greater speed and efficiency" with a computer. *Recentive*, 134 F.4th at 1214; *Content Extraction & Transmission LLC v. Wells Fargo Bank, N.A.*, 776 F.3d 1343, 1347–48 (Fed. Cir. 2014). The Supreme Court has established a two-step framework for patent eligibility. First, at Step One, a court determines whether the claims are "directed to" a patent-ineligible concept, such as an abstract idea. *Alice*, 573 U.S. at 217. If so, the court proceeds to Step Two and asks whether the claim elements, "both individually and 'as an ordered combination,'" transform the nature of the claim into "significantly more than a patent upon the [ineligible concept] itself." *Id.* at 217–18.

Whether a claim is patent-eligible subject matter under § 101 is ultimately a question of law, so district courts regularly decide the issue on motions to dismiss. *See, e.g.*, *Recentive*, 134 F.4th at 1216 (affirming grant of dismissal with prejudice); *Genetic Techs. Ltd. v. Merial LLC*, 818 F.3d 1369, 1373 (Fed. Cir. 2016) ("We have repeatedly recognized that in many cases it is possible and proper to determine patent eligibility under 35 U.S.C. § 101 on a Rule 12(b)(6) motion."). Claim construction is not a prerequisite to deciding § 101 eligibility. *Realtime Data LLC v. Array Networks Inc.*, 537 F. Supp. 3d 591, 620 (D. Del. 2021) (Connolly, J.).

IV. ARGUMENT

Aon's asserted claims are abstract under *Alice* Step One, and there is no inventive concept under *Alice* Step Two to save them from their abstractness. They are therefore patent ineligible under § 101, and the Court should dismiss the Complaint with prejudice.

A. *Alice* Step One: The Claims Are Directed To The Abstract Idea Of Looking At Aerial Imagery To Estimate Risk, For Which Computers Are Invoked Merely As A Tool.

Alice Step One looks to what the claims are "directed to," i.e., "the focus of the claimed advance over the prior art." *Affinity Labs of Tex., LLC v. DirecTV, LLC*, 838 F.3d 1253, 1257 (Fed Cir. 2016) (quotation omitted). Courts consider the intrinsic evidence, assess whether the steps are ones that humans can perform (or were already performing), and compare the claims to those analyzed in § 101 precedents to see if the concept is an abstract idea. *PersonalWeb Techs. LLC v. Google LLC*, 8 F.4th 1310, 1317 (Fed. Cir. 2021); *Elec. Power Grp. v. Alstom S.A.*, 830 F.3d 1350, 1351–54 (Fed. Cir. 2016). That analysis often reduces to a single question: Are the claims "directed to improvements to the functionality of a computer … itself"—or, instead, are the claims directed to "a process that qualifies as an abstract idea for which computers are invoked merely as a tool"? *Trinity Info Media, LLC v. Covalent, Inc.*, 72 F.4th 1355, 1362–64 (Fed. Cir. 2023). Only the former can be patented, while the latter cannot. *Recentive*, 134 F.4th at 1213–14. In this case, the evidence shows that (1) Aon's claims focus on the abstract idea of image analysis and risk assessment, and (2) computers are invoked merely as a tool to implement that idea.

1. The Claims Focus On Image Analysis And Risk Assessments, Like Other Patents That Have Been Held Ineligible.

The claims in Aon's patents are directed to the abstract idea of looking at aerial imagery to estimate risk. As a representative example, claim 1 of the '029 patent recites a process for categorizing—through an unspecified "machine learning classifier"—attributes of a house from an aerial image, and determining a risk estimate from those attributes:

<table>
<tr><th>Claim Language</th><th>Concept Summarized</th></tr>
<tr><td colspan="2">A method for automatically categorizing a repair condition of a property characteristic, comprising:</td></tr>
<tr><td>receiving, from a user at a remote computing device, a request for a property condition classification, wherein the property classification request includes identification of a property and at least one property characteristic;</td><td>receiving a request to classify a property condition</td></tr>
<tr><td>obtaining, by processing circuitry of a computing system responsive to receiving the request, an aerial image of a geographic region including the property;</td><td>obtaining an aerial image</td></tr>
<tr><td>extracting, by the processing circuitry, one or more of a plurality of features from the aerial image corresponding to the property characteristic, wherein the</td><td>extracting features from the aerial image (e.g., identify the rooftop)</td></tr>
</table>

extracted features include pixel groupings representing the property characteristic;	
determining, by the processing circuitry from the extracted features, **a property characteristic classification** for the property characteristic, wherein determining the property characteristic classification includes applying the pixel groupings for the property characteristic to a first machine learning classifier trained to identify property characteristics from a set of pixel groupings;	**determining a property characteristic** (e.g., rooftop shape is beveled)
determining, by the processing circuitry based on the identified property characteristic and the extracted features, **a condition classification for the property characteristic**, wherein identifying the condition classification includes applying the pixel groupings for the property characteristic to a second machine learning classifier trained to identify property characteristic conditions from a set of pixel groupings;	**determining the condition of the characteristic** (e.g., the bevel roof is deteriorated)
determining, by the processing circuitry based in part on the property characteristic classification and the condition classification, **a risk estimate** of damage to the property **due to one or more disasters;** and	**determining a risk estimate due to a disaster** (e.g., deteriorated roof, so higher risk of tornado damage)
returning, to the user at the remote computing device via a graphical user interface responsive to receiving the request, **a condition assessment of the property** characteristic including the condition classification and the risk estimate of damage to the property due to the one or more disasters.	**returning a condition assessment for the property**

Those functional steps mimic the thought process of a human underwriter. *See PersonalWeb*, 8 F.4th at 1316 (a "telltale sign of abstraction"). For instance, an underwriter (1) is asked to assess tornado risk for a particular property, (2) looks at an aerial image of the house, (3) identifies the roof; (4) determines the roof is beveled (based on the shape of the roof); (5) determines the beveled roof is deteriorated (because she sees missing shingles); (6) determines that the house is high risk due to the deteriorated roof; and (7) reports that analysis. Other than generic computer components, such as "processing circuitry" and a "machine learning classifier," which are discussed below, "there is nothing in the claims themselves that foreclose them from being performed by a human, mentally or with pen and paper"—a key indication that the claims are directed to an abstract idea. *See Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1318 (Fed. Cir. 2016). And because eligibility cannot depend on "the draftman's art," *Alice*, 573 U.S. at 226, courts must focus on the recited functions to be performed, not merely the components that perform the functions. *Trinity*, 72 F.4th at 1361–62; *Content Extraction*, 776 F.3d at 1347 & n.1 (disregarding apparatuses in the claim, such as a computer or "automated digitizing unit," in analyzing whether humans can do the steps).

The titles of the patents confirm that they are directed to an abstract concept: "Platform, systems, and methods for identifying property characteristics and property feature maintenance through aerial imagery analysis." *E.g.*, '029 patent, cover page. And the specification of the patents admits that automating human analysis and classification was the goal:

> The inventors recognized that deep learning methodology could be ***applied*** to risk exposure database population to analyze aerial imagery and ***automatically*** extract characteristics of individual properties, ***providing fast and efficient automated classification*** of building styles and repair conditions.

'029 patent, 2:6–11; *see also* '029 patent, 8:11–20 ("***the biological process of visually reviewing and identifying an object or feature of an object is mimicked***"). Because machine learning enables computers to perform pattern recognition like "the biological process" of the brain, *see* '029 patent, 1:37–49, 8:11–20, Aon uses machine learning, rather than brains.

The specification confirms that Aon's patents are directed to image analysis in the abstract. Aon chose Figure 1 to represent its invention on the face of the patent. That figure is a "flow diagram of an example system," '029 patent, 4:26–28, and *nothing* in it focuses on ***technology***. It merely illustrates the flow of information from inputs into outputs. As depicted, the invention is about starting from information (e.g., maps and images, the cylinders), analyzing that information (the rectangles), and turning it into other information (the rounded rectangle outputs):

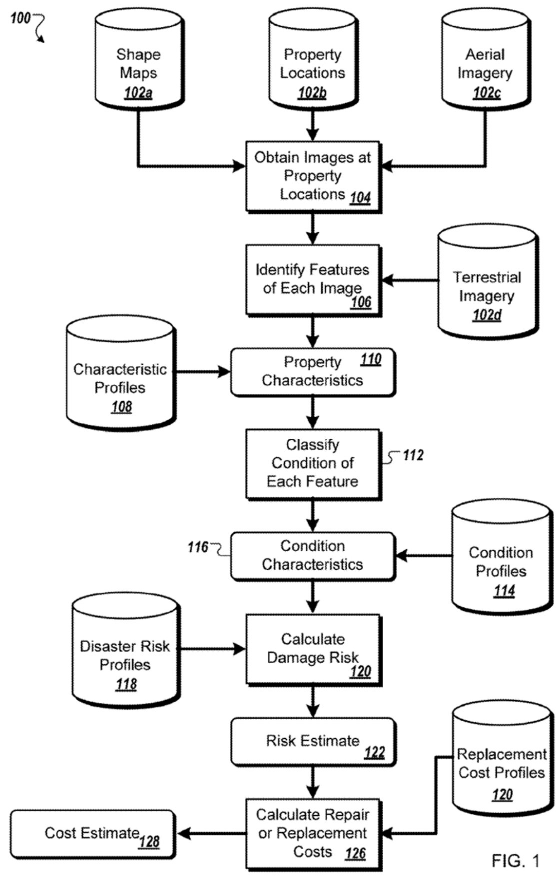

FIG. 1

’029 patent, fig.1. Rectangles 104, 106, 112, 120, and 126 represent the steps of the process, and each step is a metaphorical black box that looks at some information and extracts a different desired kind of information (e.g., “Identify Features of Each Image”; “Classify Condition of Each Feature”; “Calculate Damage Risk”), without any specificity limiting ***how*** the features are identified or ***how*** the risk is calculated. None of these boxes represents a concrete piece of technology. And the overall figure represents the manipulation of information, rather than any “computer architecture,” *contra* Compl. ¶ 18. Figure 3, which Aon highlights in its Complaint (¶ 20), fares no better. That figure adds a number of black-box “engine[s]” and generic equipment, which do not help at either Step One or Step Two. *See infra* Section IV.A.2, IV.B.1.

Similarly, the specification is preoccupied with the physical attributes of houses and how those might affect risk. The specification lists types of attributes that, when viewed from above, suggest that a house is in poor condition (for example, "weathered or damaged" features can look blurry or have patterns of wear, whereas "newly constructed property" generally would look clear and sharp, '029 patent, 10:24–28). The specification also lists various natural disasters (*e.g.*, wind factors, earthquake factors, tsunami factors, flood risk, *id.* at 17:32–52). Those features and disasters may be useful in determining insurance risk, but they are abstract concepts, not technological inventions. Even claim jargon that might initially seem technological—such as 'property characteristic profiles'—turns out, upon closer inspection, to refer to patterns about real-world construction materials, like brick and stucco. *See, e.g.*, '029 patent, 8:36–49. Thus, the purported advancement lies in Aon's application of image recognition to the conventional task of assessing risk. *See id.* at 21:8–13. That cannot be patented under the case law.

First, image analysis and image classification are classic, patent-ineligible abstract ideas, even when the claims specify a technological environment or use-case in which to perform image analysis. *See Longitude Licensing Ltd. v. Google LLC*, No. 2024-1202, 2025 WL 1249136, at *1 (Fed. Cir. Apr. 30, 2025) (nonprecedential); *In re TLI Commc'ns LLC Pat. Litig.*, 823 F.3d 607, 611 (Fed. Cir. 2016) (holding ineligible patent directed to "classifying" and storing images). Just two weeks ago, the Federal Circuit found that claims reciting automatic recognition of the "main object" in a digital image were directed to abstract ideas. *Longitude*, 2025 WL 1249136, at *1–2, 4. Longitude's patents recited "***determining*** the main object image data corresponding to the main object characterizing the image" and "***acquiring the properties of*** the determined main object image data," but the court recognized that the claims merely stated a desired result: extracting the subject of an image using an unspecified algorithm. *See id.* at *1; *id.* at *4. It did not matter that the claims specified inputs, doing the determination using "pixel values," or doing so in a process for retouching images—the overall method was still abstract. *Id.* at *2, *4 & n.3. Likewise, another patent that claimed performing "analysis" of an image to "determin[e] … a value of an image attribute" was held abstract, despite the claims doing so in the context of dental imagery, and doing so using machine learning. *See Dental Monitoring SAS v. Align Tech., Inc.*, No. C 22-07335 WHA, 2024 WL 2261931, at *1, *4–5 (N.D. Cal. May 16, 2024).

Second, computer-implemented risk or insurance analyses themselves are ineligible abstract ideas under *Alice*. In *Carfax, Inc. v. Red Mountain Technologies*, 119 F. Supp. 3d 404 (E.D. Va. 2015), the court held ineligible patent claims directed to "determining insurability of a vehicle" from certain types of input data. *Id.* at 410, 412. Underwriting an insurance policy is a "fundamental business practice," the same sort of longstanding economic activity as the concept of hedging risk in *Bilski* and intermediated settlement in *Alice*. *Id.* at 412; *see also Accenture Glob. Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1345 (Fed. Cir. 2013) (holding ineligible systems for insurance claim processing that related to "an insurance transaction database" and various components). Indeed, insurance companies have always looked at an asset and assessed risk to decide whether to underwrite a policy. *See Carfax*, 119 F. Supp. 3d at 412. Where determining the insurability of an automobile using data is an abstract idea, so too is determining the insurability of a house or other property, as in Aon's patents.

Put together, the patents-in-suit are directed to image recognition and risk assessment concepts—a combination of two abstract ideas that cannot be patented. *See RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017) ("Adding one abstract idea (math) to another abstract idea (encoding and decoding) does not render the claim non-abstract.").

2. The Claims Are Not Directed To A Specific Improvement In Computer Capabilities—They Merely Invoke Computers As A Tool.

Courts distinguish non-abstract patents, where "the focus of the claims is on the specific asserted improvement in computer capabilities," from abstract claims, where "computers are invoked merely as a tool." *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335–36 (Fed. Cir. 2016). Under this rubric, claims directed to the ***use*** of existing technology in a particular context—such as the insurance industry—are abstract and patent ineligible. *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1169–70 (Fed. Cir. 2018); *Accenture*, 728 F.3d at 1345. To decide on which side of the line a patent falls, courts examine (1) the framing of the problem in the patent specification, (2) whether the specification admits to using existing technology, and (3) whether the claims themselves identify a specific improvement in computer capabilities. *TLI*, 823 F.3d at 612; *Trinity*, 72 F.4th at 1363. Each of these three sources confirms that Aon's patents do not focus on a specific asserted improvement in computer capabilities but rather invoke computers merely as a tool.

First, the framing of the problem in the specification shows that Aon is not solving a problem with software itself, but rather looking to use software to address the needs of the insurance business. The background section does not identify any deficiencies in machine learning models or aerial imagery technology that prompted the inventions. *Cf. TLI*, 823 F.3d at 612. Instead, it explains the need to automate the assessment of properties for insurance risk. *See* '029 patent, 1:18–36. The background ends by observing that machine learning enables "***replacing human*** identification of features"—thus, "[t]he inventors recognized that deep learning methodology could be applied to risk exposure database population to analyze aerial imagery and automatically extract characteristics of individual properties." '029 patent, 2:2–9. Aon's patents are like the machine learning patents in *Recentive*, where the background section of the invalidated patents focused on a real-world, non-software problem: optimizing a television schedule across geographic markets, which had been done by humans. 134 F.4th at 1208–10, 1214. Because that was not a problem rooted in technology, the Federal Circuit concluded that the claims were really "directed to" optimizing event schedules and network maps. *Id.* at 1212–13.

Second, where, as here, a specification admits that it is using existing technology, the claims cannot be directed to that existing technology itself. *Id.* at 1212. Aon did not invent machine learning, and machine learning had already been applied to image recognition and classification (e.g., for medicine), as the specification concedes. '029 patent, 1:37–49, 8:16–20. Even the exemplary machine learning models identified in the specification, like "Network in Network" (NIN) and "Convolutional Neural Network" (CNN), were the work of others, "well-established," and "popular." *See id.* at 1:50–60, 8:20–26; *Recentive*, 134 F.4th at 1212 ("The machine learning technology described in the patents is conventional, as the patents' specifications demonstrate."). The specification does not teach some other new type of machine learning model.

Third, the claims cannot be about a new or better "machine learning classifier" or "machine learning analysis algorithm" either, because the claims merely say that such an algorithm is used without specifying how. *See, e.g.*, '491 patent, claim 11 ("applying a set of machine learning analysis algorithms to at least a portion of each image … to determine a set of characteristics"). The hard work of classifying features from images is done by the supposed "analysis algorithm[s]" recited in the claims. Yet the claims do not specify how the algorithm works internally; it just states what goes in and what comes out. *See Longitude*, 2025 WL 1249136, at *4 (claims "framed entirely in functional, results-oriented terms" are not a technological improvement). This is fatal to any purported technological improvement. *Id.*; *Recentive*, 134 F.4th at 1213 ("[T]he claims do not delineate steps through which the machine learning technology achieves an improvement…. Allowing a claim that functionally describes a mere concept without disclosing how to implement that concept risks defeating the very purpose of the patent system.").

Aon's patents resemble those invalidated in *Power Analytics Corp. v. Operation Technology, Inc.*, 2017 WL 5468179 (C.D. Cal. July 13, 2017), *aff'd*, 748 F. App'x 334 (Fed. Cir.

2019). There too, the claims recited various "engine[s]" that performed functions, including, in some instances, a "machine learning engine." *Id.* at *3, 6. The court held the claims ineligible because the claims did not "specify how the engine is configured" and none of them recited "particular structure for ***how***" to perform the comparison functions. *Id.* at *4. When claims merely use functional language and add an undefined "engine," there is no technological improvement. *See IBM Corp. v. Zillow Grp.*, 50 F.4th 1371, 1381 (Fed. Cir. 2022) ("Such functional claim language, without more, is insufficient for patentability under our law.").

Recentive confirms that using generic "machine learning" is abstract. 134 F.4th at 1211. There, the Federal Circuit examined claims directed to a "computer-implemented method of dynamically generating an event schedule," which included at least 11 claim steps involving machine learning "models" and iterative training. *Id.* at 1208–09 & nn.2–3. The Federal Circuit looked through the jargon and zeroed in on the broadcast-scheduling functions in the claim language. Crucially, the claim language focused on generic data, such as "live events," "television stations," and a "network map," which are types of information that the machine learning operates on. *See id.* at 1207–08, 1209 n.3, 1212–13. Same here. Aon's claims focus on generic data like "features" of a house, a "characteristic" of the property, and the "condition" of a property. *See, e.g.*, '029 patent, claim 1. The claims then use that generic data in an unspecified way to determine a "risk estimate." None of that improves computer functionality itself. The claims ingest information, analyze the information, and report the result, which is "all abstract." *SAP Am.*, 898 F.3d at 1167.

Fundamentally, the animating policy of § 101 is to protect against "preemption," where a patent monopolizes building blocks of ideas and natural laws. *See Alice*, 573 U.S. at 216. That preemption concern is especially heightened when the claims just say *use a computer* or *use an* *algorithm* to achieve a result, and leave it to someone else to explain how. *Affinity Labs*, 838 F.3d at 1262. The patents-in-suit identified a business use-case for machine learning, applied machine learning to that new environment, and tried to claim the field. If such patents were eligible under § 101, it would invite a gold rush of patent applications that do nothing more than claim the ***use*** of AI in this industry and that industry, reserving 17-year monopolies for automating basic human concepts using the technology of the day. Insurance companies would rush to patent the abstract concepts of applying machine learning to estimate the risk of theft, or a car accident, or a workplace injury. Other companies would rush to patent the abstract concept of applying machine learning to human tasks in ***their*** industries. Fortunately, Section 101 bars patents on such generic applications of machine learning to new environments. *Recentive*, 134 F.4th at 1212–13.

B. *Alice* Step Two: The Claims Do Not Recite An Inventive Concept.

The use of known machine learning algorithms cannot supply an inventive idea because it is "no more than claiming the abstract idea itself." *Id.* at 1212–13, 1215; *see also Dental Monitoring*, 2024 WL 2261931, at *7. And once the concept of machine learning is eliminated, nothing else exists at Step Two.

1. The Claims Use Conventional Equipment And Generic Algorithms.

Just like the generic computer claims in *Alice*, every claim of the patents-in-suit recites using "processing circuitry," which is just a reference to conventional equipment. *See, e.g.*, '029 patent, claim 1. The specification says the methods can be performed on any kind of computer, such as Windows and Macintosh computers, those with a "CPU… from Intel [or] AMD, or … other processor types," or any kind of "circuits." *Id.* at 21:25–58. They can be performed with any kind of network, wired or wireless, the Internet or a sub-network, a LAN or WAN, or "any other wireless form of communication that is known." *Id.* at 21:59–22:4. And even then, boilerplate language declares that all the examples are non-limiting anyway. *See id.* at 22:39–

23:8, 24:4–15. This is exactly like the disclosures of the patents held ineligible in *Recentive*. 134 F.4th at 1212 n.4 ("The patents additionally employ only generic computing machines and processors," citing examples). Implementing generic analysis functions within a regular computer is not sufficient to turn "an abstract idea into" a patentable technology. *In re Bd. of Trs. of Leland Stanford Junior Univ.*, 991 F.3d 1245, 1250 (Fed. Cir. 2021).

The claims also recite the use of one or more "machine learning classifier[s] trained to" do something. *E.g.*, '029 patent, claim 1; '491 patent, claims 1 & 11 ("applying a set of <u>machine learning analysis algorithms</u> to at least a portion of each image … to determine a set of characteristics … <u>wherein each algorithm … is trained to identify one or more characteristics of the set of characteristics</u>" (underlining added)). As discussed above in Section IV.A.2, these claims do not define what happens ***inside*** the so-called classifier or "machine learning analysis algorithm" to achieve that functional result. The use of such black-box algorithms cannot supply an inventive concept. *RecogniCorp*, 855 F.3d at 1327–28; *Dental Monitoring*, 2024 WL 2261931, at *7 (faulting the "opaque" method of analysis, in claims that required using machine learning). In effect, the steps of Aon's patents say to "***apply*** machine learning" to the data, but an inventive concept requires more than "merely by adding the words 'apply it.'" *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can. (U.S.)*, 687 F.3d 1266, 1276 (Fed. Cir. 2012).

Thus, neither the equipment nor the "classifier" saves the claims at Step Two.

2. The "Profiles" Claims Do Not Contain An Inventive Concept.

The claims of the '058 patent differ slightly from the other three patents in that they do not apply a machine learning algorithm directly to the imagery. Instead, they apply "property characteristic profiles" and "property condition profiles" to the imagery, where those profiles were previously "developed through training one or more machine learning algorithms." *See* '058 patent, claim 1. In other words, rather than using machine learning as a tool to analyze the data directly, these claims use machine learning as a tool to create a "profile," and then use that "profile" to analyze the data. *Id.* at 9:6–11, 17:8–25. The "profiles" claims still do not provide any indication of how the claimed machine learning occurs. This reshuffling of the machine learning elements does not change the analysis. *See Recentive*, 134 F.4th at 1212–13.

The *Digitech* case further demonstrates that Aon's "profiles" claims fare no better than the other claims. *Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344, 1347 (Fed. Cir. 2014). There, the claims involved "device profiles" in the context of photography, where the profiles helped to match colors and adapt different spatial arrangements across devices. *Id.* The Federal Circuit concluded that the profiles were patent ineligible because they were merely information. *Id.* at 1349–50. And the recited methods of generating and applying those profiles, were nothing more than an "ineligible abstract process" that "employs mathematical algorithms to manipulate existing information to generate additional information." *Id.* at 1351. Accordingly, both the profiles themselves and methods that use such profiles, were ineligible under § 101.

The same result applies here. The basic concept of Aon's "profiles" claims is to use machine learning indirectly. Yet the claims still say nothing about how to improve machine learning. So, the '058 patent claims add nothing inventive, and they too are ineligible under § 101.

3. The Claims Contain Nothing Else Inventive.

Some claims recite "pixel groupings." *E.g.*, '029 patent, claims 1 & 7. Curiously, the '029 specification never even uses the term "pixel groupings" nor explains what they are—those words appear for the first time in the claims. *See generally id.*, cols. 1–24. It would be odd for the supposedly novel "inventive concept" to be missing from the body of the patent. In any event, digital images are always made up of pixels. And looking at a subpart of an image—a group of pixels—is hardly new. Anyone who has zoomed in on a photo has done it. Indeed, the Federal Circuit recently affirmed the unpatentability of an image analysis patent, which claimed a very similar limitation: "wherein said specific subject area determination module determines said specific subject area ***using pixel values of pixel data included in a target area*** for determination…." *Longitude*, 2025 WL 1249136, at *4 & n.3. "Pixel groupings" are not meaningfully different from "pixel data … in a target area" for the purposes of § 101.

Relatedly, the later-filed patents recite image manipulation steps, such as "apply[ing] boundary information" to crop images, and rotating or adjusting images to correct for the pictures being taken at an angle. *E.g.*, '491 patent, claim 1; '285 patent, claims 11–12; *see also* '285 patent, 20:25–44 (providing examples). Those routine image processing steps do not amount to an inventive concept. Indeed, *Longitude* invalidated a patent with similar limitations on "adjusting" images "using correction conditions." 2025 WL 1249136, at *4 & n.2. And the Federal Circuit has also held ineligible a digital image reproduction method that involved correcting colors and spatial transformations (e.g., lens shape). *Digitech*, 758 F.3d at 1350–51.

Finally, some dependent claims require the use of specific machine learning models, *e.g.*, '029 patent, claim 4 ("Network in Network (NIN)"); '285 patent, claim 5 ("convolutional neural network (CNN) model"), but those do not help patent eligibility either. When a patent lists ***prior art*** machine learning algorithms to be applied in a particular context, that tends to show those were conventional, undermining—not bolstering—patent eligibility. *Recentive*, 134 F.4th at 1209 ("The specification also makes clear that the patented method employs 'any suitable machine learning technique[,] ... such as, for example: a gradient boosted random forest, a regression, a neural network, a decision tree, a support vector machine, a Bayesian network, [or] other type of technique.'"). Here too, the specification admits that Aon did not invent NIN and CNN models, which were "well-established and popular." *See* '285 patent, 8:52–58 (citing a prior art publication in a journal, by someone else); '029 patent, 8:11–26 (same); '029 patent, 1:50–60 (citing prior art paper, by someone else). So these claimed models were well-known and conventional, and they cannot supply an inventive concept.

C. Aon's Allegations Confirm That The Claims Are Directed To Patent-Ineligible Subject Matter.

Aon devotes several paragraphs of the Complaint to legal allegations about patent eligibility. Those allegations are self-defeating.

First, Aon's own framing of the patents ***confirms*** that they are methods for "***assessing property vulnerabilities arising from their characteristics***," and doing so "automatically." Compl. ¶ 18; *see also id.* ¶¶ 21 ("The improved architecture further automates prior processes of manually obtaining data about, for example, roof condition and then comparing that to manually obtained control data that allowed an insurer to predict roof condition as part of a property risk assessment."), 23 ("automates the process"), 25 ("the automated process"). Those allegations concede that the supposed advancement is automating the process of looking at aerial imagery to categorize the condition of a house and assess risk, as discussed above in Section IV.A.1.

Second, repeated recitation of an "improved computer architecture" does not make it so. No matter how many times the Complaint repeats the phrase (*e.g.*, Compl. ¶¶ 18, 19, 20, 23, 26, 27, 28, 29, 31, 32, 33, 34, 35, 36, 40, 42, 43, 44) that talismanic incantation cannot decide the legal analysis. *Alice* Step One is a question of law, and legal conclusions pleaded in a complaint carry no weight. *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009). What the claims are "directed to," and whether that is an abstract idea, is for this Court to decide from the intrinsic evidence. *Trinity*, 72 F.4th at 1363–64. As discussed above in Section IV.A, an independent analysis shows that the patents fail *Alice*.

Third, Aon repeatedly emphasizes that the claims are "multi-step" because the methods classify some characteristic of a house (e.g., shape of roof), classify the condition of the house (e.g., good or poor condition), and do so with two algorithms. Compl. ¶ 26; *see also id.* ¶¶ 28, 31, 33, 35. But analyzing problems in steps is hardly inventive—it is incidental to obtaining multiple conclusions from data. *Cf. Recentive*, 134 F.4th at 1212–13. And virtually ***every*** software method patent that has been found ineligible under § 101 has multiple steps. *See, e.g.*, *Alice*, 573 U.S. at 219; *TLI*, 823 F.3d at 610. The fact that a claim involves a multistep process does not alter its fundamental character as an economic activity. *See PersonalWeb*, 8 F.4th at 1318 ("The claims as a whole, then, are directed to a medley of mental processes that, taken together, amount only to a ***multistep mental process***.").

Fourth, Aon alleges that the patents are directed to technological improvements because they "provide[] improved processing speed and efficiency by allowing the machine learning algorithms to execute on different physical processors" and do so in parallel. Compl. ¶¶ 28, 35. But the ***claims*** do not require running in parallel on separate physical processors—none specifies how many processors are to be used. *See Longitude*, 2025 WL 1249136, at *4. And the specification says running in parallel is optional. *See, e.g.*, '058 patent, claims 1–20; *id.* at 21:54–57, 22:32–42. Moreover, "relying on a computer to perform routine tasks more quickly or more accurately is insufficient to render a claim patent eligible." *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015). And using fast, multi-processor computers to do lots of things at once was concededly conventional. *See* '029 patent, 21:49–58 (listing multiple processor computers in a laundry list of available hardware); *Recentive*, 134 F.4th at 1212–13.

Fifth, as to the '285 patent, Aon points to "preparing a graphical report." Compl. ¶¶ 30–31. But that is just outputting data—a classic abstract idea that does not change the otherwise abstract concept of the claims. *SAP Am.*, 898 F.3d at 1167 ("selecting certain information, analyzing it… and reporting or displaying the results of the analysis… is all abstract").

Finally, Aon incorrectly focuses on examples from the specification to suggest that the patents-in-suit deliver concrete technology. *See, e.g.*, Compl. ¶¶ 37–47. But § 101 focuses the inquiry on what the ***claims*** are directed to, not what might be taught in the examples when they provide more detail than the claims do. *Accenture*, 728 F.3d at 1345. It does not matter that the specification provides specific examples of examining, *e.g.*, a 2D color histogram plot as part of the training or classification, *see* Compl. ¶ 45; '029 patent, 11:27–65, when the claims are not limited to that specific approach and the patents instead claim the use of *any* machine learning classifier. *See Longitude*, 2025 WL 1249136, at *3–4. Other patentees have tried the same tactic of pivoting to the complexity of the specification, and the Federal Circuit has chided that as irrelevant: "Regarding Accenture's argument concerning the complexity of the specification, including the specification's detailed software implementation guidelines, the important inquiry for a § 101 analysis is to look to the claim." *Accenture*, 728 F.3d at 1345. The analysis must focus on "what additional features remain in the claims," not how advanced unclaimed embodiments may be. *Bancorp*, 687 F.3d at 1279. Thus, Aon's allegations at ¶¶ 37–47 of the Complaint are of no use in the § 101 abstractness analysis.

In sum, Aon's allegations in the Complaint do not change the fact that the claims are unpatentable under § 101.

CONCLUSION

For the foregoing reasons, ZestyAI respectfully requests that this Court hold the claims of the patents-in-suit ineligible under § 101 and dismiss *with prejudice*. Clear precedent shows that the invocation of machine learning algorithms in a particular environment is abstract and non-inventive. Dismissal with prejudice is proper where, as here, additional allegations would not affect the outcome. *See Recentive*, 134 F.4th at 1215; *Fast 101 Pty Ltd. v. Citigroup Inc.*, 424 F. Supp. 3d 385, 393 (D. Del. 2020) (dismissing under § 101 without leave to amend).

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Respectfully submitted,

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