UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

ZoomInfo Technologies LLC v. Zenleads Inc., d/b/a Apollo.IO

ZoomInfo v. Zenleads · No. 1:25-cv-00324-JCG · Decided June 23, 2026

OPINION

ZoomInfo Technologies LLC v. Zenleads Inc., d/b/a Apollo.IO
PER CURIAM.
IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE
ZOOMINFO TECHNOLOGIES
LLC,
Plaintiff, Court No. 1:25-cv-00324-JCG v. ZENLEADS INC., d/b/a
APPOLLO.IO,
Defendant.
OPINION AND ORDER
[Providing claim construction for the patents in suit.] Dated: June 23, 2026 Monté T. Squire, Duane Morris LLP, of Wilmington, DE; Tia D. Fenton and Elissa L. Sanford, Duane Morris LLP, of Washington, D.C.; Gilbert A. Greene, Duane Morris LLP, of Austin, TX; Matthew C. Gaudet, Duane Morris LLP, of Atlanta, GA; Brianna M. Vinci and Sean P. McConnel, Duane Morris LLP, of Philadelphia, PA. Attorneys for Plaintiff ZoomInfo Technologies LLC. Adam W. Poff, Anne Shea Gaza, and Daniel G. Mackrides, Young Conaway Stargatt & Taylor, LLP, of Wilmington, DE; Katherine Vidal and Joseph C. Masullo, Winston & Strawn LLP, of Washington, D.C.; Samantha M. Lerner, Winston & Strawn LLP, of Chicago, IL; Eimeric Reig-Plessis, Winston & Strawn LLP, of San Francisco, CA; Carson Swope, Winston & Strawn LLP, of Redwood City, CA; David B. Rochelson, Garwin Gerstein & Fisher LLP, New York, NY. Attorneys for Defendant Zenleads Inc., d/b/a Apollo.io. Choe-Groves, Judge: This matter is before the Court for claim construction of terms in U.S. Patent Numbers 10,380,609 ("the '609 Patent") and 11,392,964 ("the '964 Patent") (collectively, "Asserted Patents" or "Patents"). See Second Amended Joint Claim Construction Chart ("Second Am. Joint Chart") (D.I. 127); U.S. Patent No. 10,380,609 ("'609 Patent") (D.I. 74-1); U.S. Patent No. 11,392,964 ("'964 Patent") (D.I. 74-2). The Parties seek construction of the following terms and phrases: "feature matrix;" "fitness . . . characteristics;" and "the target client." Second Am. Joint Chart at 3–4. Upon consideration of the brief and arguments of counsel, the Court construes the disputed claim terms as set forth below.
BACKGROUND
ZoomInfo Technologies LLC ("Plaintiff" or ZoomInfo") filed suit against Defendant Zenleads Inc., doing business as Appollo.io ("Defendant" or "Apollo") for infringement of the Asserted

Patents. First Am. Compl. Patent Infringement ("Am. Compl.") (D.I. 20). This Opinion concerns the first step of the two-step infringement analysis, the construction of claims asserted in the '964 and '609 Patents. The Asserted Patents share a common specification and claim priority to the same provisional application, and the '964 Patent is a continuation of the '609 Patent. '609 Patent at 1:8–11; '964 Patent at [63], 1:8–16. The '609 Patent was issued by the United States Patent and Trademark Office ("USPTO") on August 13, 2019, and the '964 Patent was issued by the USPTO on July 19, 2022. '609 Patent at [45]; '964 Patent at [45]. The '609 patent is titled "Web Crawling for Use in Providing Leads Generation and Engagement Recommendations," and the '964 Patent is titled "Predictive Analytics for Leads Generation and Engagement Recommendations." '609 Patent at [54]; '964 Patent at [54]. Both patents are directed to an automated predictive analytics system providing for generating sales leads with lead engagement recommendations. '609 Patent at 1:36–37; '964 Patent at 1:42–44. The Parties filed a joint claim construction brief and charts. Joint Claim Construction Chart (D.I. 74); Joint Claim Construction Brief ("Joint Br.") (D.I. 110); Am. Joint Chart (D.I. 115); Second Am. Joint Chart. The Court held a claim construction hearing on May 7, 2026, and the Parties did not call expert witnesses. See Am. Sched. Order (D.I. 22).

CLAIM CONSTRUCTION STANDARD

When the meaning of a patent claim's language is disputed, the court must construe the claim as a matter of law. Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc), aff'd, 517 U.S. 370 (1996). "[T]he construction of a patent, including terms of art within its claim, is exclusively within the province of the court." Markman, 517 U.S. at 372. "The purpose of claim construction is to 'determin[e] the meaning and scope of the patent claims asserted to be infringed.'" O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co., 521 F.3d 1351, 1360 (Fed. Cir. 2008) (quoting Markman, 52 F.3d at 976). "The patent is a fully integrated written instrument." Markman, 52 F.3d at 978. For the purpose of claim construction, "[a] court should look first to the intrinsic evidence of record, i.e., the patent itself, including the claims, the specification and, if in evidence, the prosecution history." Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996) (citing Markman, 52 F.3d at 979). "The words of a claim are generally given their ordinary and customary meaning as understood by a person of ordinary skill in the art when read in the context of the specification and prosecution history." Thorner v. Sony Comput. Ent. Am. LLC, 669 F.3d 1362, 1365 (Fed. Cir. 2012) (citing Phillips v. AWH Corp., 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc)). Limitations from dependent claims, the specification, and embodiments will not be read into the claims. "The doctrine of claim differentiation [ ] creates a presumption that [ ] dependent claim limitations are not included in the independent claim." GE Lighting Sols., LLC v. AgiLight, Inc., 750 F.3d 1304, 1310 (Fed. Cir. 2014) (citation omitted). Limitations found in the specification are not imposed into the claims. Phillips, 415 F.3d at 1323–24. In the same vein, "[i]t is improper to read limitations from a preferred embodiment described in the specification—even if it is the only embodiment—into the claims absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited." GE Lighting Sols.,

LLC, 750 F.3d at 1309 (citation omitted) (discussing a figure as a “depicted embodiment”).

DISCUSSION

I. Undisputed Terms The Court acknowledges that the Parties agree on the construction of three claim terms in Claim 1 of the ’609 and ’964 Patents. Second Am. Joint Chart at 2. The Parties agree that: (1) “trained classifier” shall mean “a machine learning model that has been trained to assign a label or class to a plurality of web pages, hyperlinks, and link structures;” (2) “based on the categorization of the plurality of web pages, hyperlinks, and link structures” shall mean “using the categorization of the plurality of web pages, hyperlinks, and link structures to control or guide the crawling of the plurality of web pages, hyperlinks, and link structures;” and (3) “recommendations for engagement/recommendations of engagement” shall mean “recommendations for how to engage with a target client.” Id. The Court accepts and adopts these constructions without further discussion. II. Disputed Terms The Parties disagree on three claim terms in Claim 1 of the Asserted Patents. The Court examines the disputed claim terms and the Parties’ proposed constructions in turn. A. “feature matrix” Plaintiff asserts that the term “feature matrix” should be construed as a “data structure that contains features based on the crawling.” Second Am. Joint Chart at

3. Defendant asserts that the plain and ordinary meaning should prevail but also

proposes a construction of “plain and ordinary meaning, which is a tabular data structure, where each row corresponds to an entity, and each column corresponds to a feature, with row-column intersections containing the value of the corresponding feature of the respective entity.” Id. Claim 1 of the ’609 Patent recites: generating a feature matrix for the target client and comparing one or more value of the feature matrix of the target client with one or more values of a feature matrix for the entity’s existing clients to generate the recommendations of engagement. ’609 at 17:35–39. Both Parties propose constructions that define the term as a type of data structure. Second Am. Joint Chart at 3. Defendant argues that the term “matrix” has a well-established meaning in computing as a two-dimensional array. Joint Br. at 31. Defendant claims that the specification uses the ordinary meaning by explaining the “feature matrix” as a tabular structure with rows and columns, and proposes construing the claim term using the specification’s examples. Id.; see ’609 at 7:23–25. Plaintiff avers that nothing in the claim language requires that the “feature matrix” use the specific form of multiple rows and multiple columns. Joint Br. at 28–29. Plaintiff argues that the specification describes embodiments that could mean that a “feature matrix” does not have multiple rows. Id. at 30. “In construing terms used in patent claims, it is necessary to consider the specification as a whole, and to read all portions of the written description, if possible, in a manner that renders the patent internally consistent.” Budde v. Harley-Davidson, Inc., 250 F.3d 1369, 1379–80 (Fed. Cir. 2001). “The best source for understanding a technical term is the specification from which it arose, informed, as needed, by the prosecution history.” Multiform Desiccants, Inc. v. Medzam, Ltd., 133 F.3d 1473, 1478 (Fed. Cir. 1998). “When the specification explains and defines a term used in the claims, without ambiguity or incompleteness, there is no need to search

further for the meaning of the term." Id. Both Parties refer to the following language in the specification: Finally, an operation generates the feature matrix for mathematical modeling. In an example feature matrix, each row may include a training example and each column may hold a numerical representation of a feature. For example, the numerical representation of the feature may be a binary value for a categorical feature, a continuous value for an ordinal feature, etc. For efficient storage and processing of data, an implementation of the feature matrix may use sparse data representation where only non-zero values and positions are stored and all other values of the features are assumed to be zero. An example feature matrix may have each row representing a target company and each column providing a value of a feature, where such value may be binary value, continuous value etc. For example a feature may be the size of the target company and in which case, the value may be the number of employees in that company. Such feature matrix may be continuously updated, however, historical values of the features may also be stored so that they may be used for analysis. '609 Patent at 7:22–40; Joint Br. at 29, 31. Defendant claims that every discussion of a feature matrix in the specification describes a feature matrix as using a row- and-column structure, and that Plaintiff's proposed construction improperly broadens the term matrix to encompass the wider category of data structures. Joint Br. at 31–34. Plaintiff acknowledges that the term "feature matrix" relates to a data structure, but faults Defendant for attempting to import a specific type of data structure, a table with multiple rows and columns, into the claim term. Id. at 36. The claim language recites "generating a feature matrix for the target client" and "comparing one or more value[s] of the feature matrix of the target client" with "one or more values of a feature matrix for the entity's existing clients . . . " '609 Patent at 17:35–39; '964 Patent at 17:31–34. The specification does not define "feature matrix" but provides examples of what a feature matrix could be and what the values within a feature matrix could represent. See '609 Patent at 7:22–35; '964 Patent at 7:29–47. The specification provides examples of a feature matrix that includes rows and columns, and presents the option that a feature matrix may "use sparse data representation where only non-zero values and positions are stored and all other values of the features are assumed to be zero." '609 Patent at 7:22–35. Plaintiff claims that this does not rule out the possibility of a single row, single column matrix, and that the specification permits the possibility of several possible cases of matrices. Joint Br. at 41–42 (citing '609 Patent at 11:41–43). "Although the specification may aid the court in interpreting the meaning of disputed language in the claims, particular embodiments and examples appearing in the specification will not generally be read into the claims." Constant v. Advanced Micro-Devices, Inc., 848 F.2d 1560, 1571 (Fed. Cir. 1988). The specification details feature matrices where "each" row contains a unit and "each" column contains another unit, with some example pairings being a row of "training example[s]" and a column of "numerical representation[s] of a feature[,]" or a row of "target [companies]" and a column of "value[s] of a feature[.]" '609 Patent at 7:22–35. The claim language discusses comparing "one or more value[s]" of the feature matrix of the target client with "one or more values" of a feature matrix for the entity's existing clients to generate the

recommendations of engagement, indicating that the values displayed in feature matrices can be one or many. Id. at 17:35–39. The specification instructs that the generated feature matrix is for mathematical modeling. Id. at 7:22–23. Defendant refers to the '964 Patent's prosecution history to support its construction and claims that Plaintiff's construction contradicts the '964 Patent's prosecution history. Joint Br. at 35. Defendant claims that the U.S. Patent Application for Patent No. 16/528, 246, the application that resulted in the '964 Patent, shows that the USPTO relied heavily on the use of a "feature matrix" to allow the patent to be granted over prior art and relied on the word "matrix" having a defined scope that was well-known. Id. at 35–36. The USPTO discussed the "feature matrix" in relation to prior art but did not comment on the scope of the term. Appendix Supp. Joint Claim Construction Br. ("Joint Appendix"), Ex. 7, Office Action for U.S. Patent Application No. 16/528,246 (Oct. 29, 2021) (D.I. 111-1) at 4–6. The Patent Application discussed the "feature matrix" as an element that distinguished the invention from prior art, but did not opine as to what constituted a "feature matrix." See id. Both Parties offer extrinsic evidence in the form of declarations from expert witnesses who identify themselves as persons of ordinary skill in the art at the time of the invention with knowledge of the plain and ordinary meaning of the term "feature matrix." Joint Appendix, Ex. 2, Declaration of Dr. Eli Saber ("Ex. 2") at ¶¶ 8, 21, 47–54, Ex. 8, Expert Declaration of Kevin C. Almeroth ("Ex. 8") at ¶¶ 34, 37–41. Defendant's expert states that "[a] matrix denotes a two-dimensional array of values organized into rows and columns, where each element is addressable by a row index and a column index." Ex. 2 at ¶ 49. Plaintiff's expert states that "[i]n the context of mathematics and computing, a matrix is understood as an m x n organization of data, and it exists independent of any particular form in which it is stored" and "[o]ne way to consider the structure of a matrix is a table . . . and the table can have any number of rows or columns." Ex. 8 at ¶¶38–39 (alterations in original). Plaintiff concedes that "a table with just [one] row is still a table, and it is still a matrix." Joint Br. at 38. Both Parties recognize that a table, with one row and column, is still a table, and that a table is a type of matrix. The claim language, read in conjunction with the specification, indicates that a feature matrix takes the form of a table. Thus, it is in accordance with the claim language to reference a tabular format in construing the term "feature matrix." The use of "data structure" in Plaintiff's proposed construction opens the claim term up to a wider definition beyond a tabular format. Defendant's proposed construction refers to specification language regarding what features can be depicted in a row and column. Second Am. Joint Chart at 3. If a table can include a one row, one column data structure, then using the term "tabular data structure" in the construction of "feature matrix" would reasonably encompass the type of data structure that both Parties and the claim language acknowledge can be a feature matrix. The specification's descriptions of what values could be displayed in the feature matrix are non-limiting, and do not restrict what features could be displayed in a feature matrix. Defendant's construction accounts for this by describing each "row" and "column" as corresponding to the general term of "entity." See id. The Court concludes that the claim term "feature matrix" means "a tabular data structure,

where each row corresponds to an entity, and each column corresponds to a feature, with row-column intersections containing the value of the corresponding feature for the respective entity." Accordingly, the Court adopts Defendant's construction for the claim term "feature matrix." B. "fitness . . . characteristics" Defendant asserts that the term "fitness . . . characteristics" is indefinite pursuant to 35 U.S.C. § 112(b), and Plaintiff asserts that the term is not indefinite. Id. Neither party proposes a construction for the claim term. A patent is presumed valid under 35 U.S.C. § 282, and a defense of invalidity must be proven by clear and convincing evidence. Microsoft Corp. v. I4I Ltd. P'ship, 564 U.S. 91, 95
(2011). A patent is invalid for indefiniteness if "its claims, read in light of the
specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention." Nautilus, Inc. v. Biosig Instruments, Inc., 572 U.S. 898, 901 (2014). "[A] context- specific inquiry into whether particular functional language actually provides the required reasonable certainty" is needed to determine indefiniteness. BASF Corp. v. Johnson Matthey Inc., 875 F.3d 1360, 1366 (Fed. Cir. 2017). Claim 1 recites: generating recommendations for engagement with the plurality of target clients, wherein components of the recommendations for engagement are based on determined similarities between (a) the fitness, engagement, and intent characteristics of the plurality of target clients and (b) the fitness, engagement, and intent characteristics of the entity's existing clients[.] '609 Patent at 17: 19–25; '964 Patent at 17:15–21. Defendant notes that fitness, engagement, and intent characteristics form the three components of recommendations for engagement. Joint Br. at 48. Defendant avers that the word "fitness" is subjective and has no well-understood meaning in the context of the Asserted Patents to provide an objective definition. Id. Plaintiff argues that Defendant ignores support in the intrinsic record that would inform a person of ordinary skill in the art of the scope and meaning of the claim term with reasonable certainty. Id. at 53–57. Plaintiff asserts that the specification provides illustrative examples that give a general guideline and points of comparison through which to interpret the scope and meaning of the claim. Id. at 55. In describing the automated system and method for lead generation, the specification states: In the context of an example company Alpha (hereinafter "Alpha") that is in the business of providing maintenance and repair services for mobile devices, the fitness characteristics of the existing clients of Alpha may include, for example, the average number of employees of the existing clients, the type of business of the existing clients, etc. For example, the automated system may determine that a fitness characteristic of the existing clients is that generally existing clients in the trucking industry are more likely to use the services of Alpha. '609 Patent at 2:20–30; '694 Patent at 2:27–37. Plaintiff argues that the specification demonstrates a description of "fitness . . . characteristics" and provides specific examples that lend reasonable certainty to understanding the scope of the term for a person of ordinary skill in the art. Joint Br. at 57. A patent does not satisfy the definiteness requirement of 35 U.S.C. § 112 simply because "a court can ascribe some meaning to a patent's claims." Interval Licensing LLC v. AOL, Inc., 766 F.3d 1364, 1371 (Fed.

Cir. 2014) (quoting Nautilus Inc., 572 U.S. at 911) (emphasis omitted). "The claims, when read in light of the specification and the prosecution history, must provide objective boundaries for those of skill in the art." Id. The disputed term appears in the claim language as part of a list: "fitness, engagement, and intent characteristics . . . ." '609 Patent at 17:15–25. Beyond the exemplary characteristics provided, the specification also explains that the automated system collects "unstructured text data from public data sources" and analyzes this data for similar fitness, engagement, and intent characteristics as indicated by the existing clients. Id. at 2:48–53. For example, the system may analyze data collected from public sources "to identify potential target clients that are in the trucking industry, specifically trucking companies that are specialized in making off-hour deliveries," or "to see if such target companies have recently read online articles comparing screen repair service providers." Id. at 2:53–60. "Fitness" when considered in relation to the specification's descriptions indicates that "fitness characteristics" are attributes or reasons why one entity is a match or correct fit. It is instructive on the understanding of the term "fitness . . . characteristics" that the patented invention is an automated predictive analytics system, tasked with "provid[ing] a client with a list of sales leads and lead engagement recommendations." Id. at 1:36–38; 2:14–16. The specification describes a system that analyzes publicly sourced data on target clients for traits and qualities to find similarities to the traits and qualities of existing clients. '609 Patent at 2:48–53. One of ordinary skill in the art would reasonably understand "fitness . . . characteristics" in the claim language's context to mean a match under the circumstances presented by the patent. See Nautilus Inc., 572 U.S. at 901. The Court concludes that the claim term "fitness . . . characteristics" is not indefinite and reasonable boundaries as to the scope of the claim can be understood from the intrinsic record. Accordingly, the Court adopts the plain and ordinary meaning for the term "fitness . . . characteristics." C. "the target client" Defendant asserts that the term "the target client" is indefinite pursuant to 35 U.S.C. § 112(b), and Plaintiff asserts that the term is not indefinite. Second Am. Joint Chart at 4. Neither party proposes a construction for the claim term. Claim 1 recites the "plurality of target clients" and later recites "the target client" throughout the claim language. '609 Patent at 17:16–37. Defendant argues that this is a defect because it establishes multiple target clients, but then refers to "the target client" without specifying any specific target client. Joint Br. at 61. Defendant also notes that the first step of Claim 1 in the '609 Patent refers to "a plurality of target clients," while the first step of Claim 1 in the '964 Patent refers to "the plurality of target clients." Id. at 63. Plaintiff argues that Defendant's indefiniteness argument is a flawed application of the law. Id. at 65. Plaintiff claims that this is not a fatal antecedent basis issue, rather the claim first introduces a "plurality of target clients" and subsequently identifies "the target client" as one of the "plurality of target clients." Id. Defendant replies that "a plurality of target clients" and "the target client" share the words "target client," but are plainly different as one describes a group and the other an individual. Id. at 75. Defendant argues that there is no guidance as to how the singular "target client" is selected from "a plurality of target clients." Id. Indefiniteness "focuses on whether those skilled in the art would understand

the scope of the claim when the claim is read in light of the rest of the specification." Energizer Holdings, Inc. v. Int'l Trade Comm'n, 435 F.3d 1366, 1370 (Fed. Cir. 2006) (quoting Union Pac. Res. Co. v. Chesapeake Energy Corp., 236 F.3d 684, 692 (Fed. Cir. 2001)). "When the meaning of the claim would reasonably be understood by persons of ordinary skill when read in light of the specification, the claim is not subject to invalidity upon departure from the protocol of 'antecedent basis.'" Id. "The target client" when read in context of the claim language is understandable as a "target client" from the "plurality of target clients" mentioned earlier in Claim 1. '609 Patent at 17:11–39; '964 Patent at 17:15–39. Defendant has not demonstrated that the standard for indefiniteness is met for the claimed term "the target client" because a person of ordinary skill in the art would understand that the singular "target client" term refers to the plural term of "plurality of target clients" when read in full connection to the claim language. See Collabo Innovations, Inc. v. OmniVision Techs., Inc., No. CV 16- 197-JFB-SRF, 2017 WL 3670661, at *10 (D. Del. Aug. 25, 2017) ("Subsequent references to the singular claim term 'the floating diffusion layer' would be understood by one of ordinary skill in the art to refer back to each of the plurality of floating diffusion layers referenced earlier in the claim language [. . .]. Nothing in the specification or claim language suggests that the patent recites a variety of distinguishable floating diffusion layers.") (internal citations omitted). Accordingly, the term "the target client" is not indefinite and the Court adopts the plain and ordinary meaning for the term "the target client."

CONCLUSION

For the foregoing reasons, the Court construes the disputed claim terms from the Asserted Patents as follows:

1. "feature matrix" as "a tabular data structure, where each row corresponds

to an entity, and each column corresponds to a feature, with row-column intersections containing the value of the corresponding feature for the respective entity";

2. "fitness . . . characteristics" has its plain and ordinary meaning; and

3. "the target client" has its plain and ordinary meaning.

IT IS SO ORDERED this 23rd day of June, 2026. /s/ Jennifer Choe-Groves Jennifer Choe-Groves U.S. District Court Judge* *Judge Jennifer Choe-Groves, of the United States Court of International Trade, sitting by designation.