NOTE: This disposition is nonprecedential.

United States Court of Appeals for the Federal Circuit

RENSSELAER POLYTECHNIC INSTITUTE, CF DYNAMIC ADVANCES LLC,
Plaintiffs-Appellants

v.

AMAZON.COM, INC.,
Defendant-Appellee

2024-1725, 2024-1739

Appeals from the United States District Court for the Northern District of New York in Nos. 1:18-cv-00549-BKS-TWD, 1:23-cv-00227-BKS-TWD, Judge Brenda K. Sannes.

Decided: February 24, 2026

LI ZHU, Robins Kaplan LLP, Redwood City, CA, argued for plaintiffs-appellants. Also represented by ANNIE HUANG, New York, NY; BENJAMEN LINDEN, CYRUS ALCORN MORTON, NAVIN RAMALINGAM, Minneapolis, MN.

JEREMY ANGUS ANAPOL, Morgan, Lewis & Bockius LLP, Costa Mesa, CA, argued for defendant-appellee. Also represented by COLIN B. HEIDEMAN, Seattle, WA; GABRIEL K. BELL, MATTHEW J. MOORE, Latham & Watkins LLP,

Washington, DC; JEFFREY H. DEAN, Amazon.com, Inc., Seattle, WA; JOSEPH R. RE, Knobbe, Martens, Olson & Bear, LLP, Irvine, CA.

Before DYK, SCHALL, and STARK, *Circuit Judges*.

DYK, *Circuit Judge*.

Rensselaer Polytechnic Institute and CF Dynamic Advances LLC (together, "Rensselaer") brought suit against Amazon.com, Inc. ("Amazon") in the Northern District of New York for infringement of United States Patent No. 7,177,798 (the "'798 patent"). Amazon countersued for a determination that the '798 patent was directed to patent ineligible subject matter. The district court granted summary judgment for Amazon, determining that the '798 patent claimed ineligible subject matter under the Supreme Court's decision in *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208 (2014). We *affirm*.

BACKGROUND

The '798 patent discloses a "method for processing a natural language input provided by a user." '798 patent, abstract. As Rensselaer argues, the '798 patent is "directed to the novel application of case-based reasoning to a metadata database within [natural language processing]." Appellants' Br. 4. Rensselaer argues that case-based reasoning is "an established problem-solving technique for computers," *id.* at 7, and, when applied to the field of natural language processing, it uses "case information to learn from metadata associated with past utterances" to resolve the natural ambiguities existing in human language, such as when one word carries multiple meanings, *id.* at 10. In doing this, the claimed method can process an input of natural human language without needing to first augment the input by translating it into a more easily readable syntax. *See id.* at 5–6. In short, case-based reasoning is, in the context of this patent, a type of machine learning or artificial

intelligence ("AI"). *See* Appellants' Br. 43 ("Case-based reasoning is itself a specific form of computerized reasoning rooted in artificial intelligence . . . .").

Before the district court, Rensselaer conceded that independent claim 1 of the '798 patent is representative of most[1] of the claims and recites:

> 1. A method for processing a natural language input provided by a user, the method comprising:
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> providing a natural language query input by the user;
>
> performing, based on the input, without augmentation, a search of one or more language-based databases including at least one metadata database comprising at least one of a group of information types comprising:
>
> case information;
>
> keywords;
>
> information models; and
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> database values;
>
> providing, through a user interface, a result of the search to the user;
>
> identifying, for the one or more language-based databases, a finite number of database objects; and

[1] Before the district court, Rensselaer argued that claims 2, 5, and 6 are not represented by claim 1. On appeal, Rensselaer does not argue in its opening brief that these claims require distinct analysis, and we accordingly do not separately address them.

> determining a plurality of combinations of the finite number of database objects.

'798 patent, claim 1.

Before the district court, the parties cross-moved for summary judgment. The district court concluded that, based on the patent's intrinsic record, the claims were ineligible as a matter of law and granted Amazon's motion. Rensselaer appeals. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

DISCUSSION

"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 . . . ." 35 U.S.C. § 101. However, the Supreme Court has concluded the statute should be construed to exclude certain subject-matter from patent eligibility, namely "[l]aws of nature, natural phenomena, and abstract ideas." *Alice*, 573 U.S. at 216; *Mayo Collab. Servs. v. Prometheus Lab'ys, Inc.*, 566 U.S. 66, 71 (2012). To determine whether a patent improperly claims an abstract idea, we apply the two-step analysis articulated in *Alice*. *Alice*, 573 U.S. at 217; *Recentive Analytics, Inc. v. Fox Corp.*, 134 F.4th 1205, 1211 (Fed. Cir. 2025), *cert. denied* — S. Ct. —, No. 25-505, 2025 WL 3507020. At step one, "we determine whether the claims at issue are directed to one of those patent-ineligible concepts." *Alice*, 573 U.S. at 217. Then, if we find they are so directed, we assess the "elements of each claim both individually and 'as an ordered combination'" to determine whether they contain an "inventive concept" that is sufficient to transform the claimed invention into something more than the ineligible subject matter. *Id.* at 217–18 (quoting *Mayo*, 566 U.S. at 79).

In evaluating a software patent, the *Alice* inquiry often examines whether the claims focus on a specific technological improvement to computer capabilities or merely invoke

computers as a tool that implements an abstract idea. *Recentive*, 134 F.4th at 1212 (citing *Koninklijke KPN N.V. v. Gemalto M2M GmbH*, 942 F.3d 1143, 1149 (Fed. Cir. 2019)). This inquiry "often turns to the question of what the patent asserts as the claimed advance over the prior art." *GoTV Streaming, LLC v. Netflix, Inc.*, —F.4th—, No. 2024-1669, 2026 WL 346200, at *7 (Fed. Cir. Feb. 9, 2026) (quoting *Broadband iTV, Inc. v. Amazon.com, Inc.*, 113 F.4th 1359, 1367 (Fed. Cir. 2024)). We have consistently concluded that claims that use "functional, result-focused language" or merely "encompass ordinary computers and networks to perform their ordinary functions in carrying out an abstract idea, even when narrowed to a particular use or environment," do not provide an inventive concept capable of rendering the claims patent eligible. *GoTV*, 2026 WL 346200, at *11 (collecting cases). Instead, the claims must "require a specific implementation to improve *how* those functions are carried out." *Id.*

The district court determined that the claims were directed to an abstract idea at step one and that the claims do not contain an inventive concept capable of rendering the claims eligible at step two. We review the district court's grant of summary judgment de novo. *Focus Prods. Grp. Int'l, LLC v. Kartri Sales Co.*, 156 F.4th 1259, 1271 (Fed. Cir. 2025) (applying Second Circuit law). Amazon is only entitled to summary judgment if, resolving all material factual disputes in favor of Rensselaer, Amazon is entitled to judgment as a matter of law. *See id.* (citing Fed. R. Civ. P. 56(a)).

I

We conclude that at step one, the claims are abstract. Here, the claims largely recite the use of generic technology using standard methods. *See, e.g.*, '798 patent col. 9 ll. 18–20 (noting the claimed invention uses a "general purpose computer system"); *id.* col. 9 ll. 58–60 ("[T]he invention is not limited to a particular computer system platform,

processor, operating system, or network."); *id.* col. 9 ll. 60–64 (noting that "other appropriate computer systems could also be used"). On appeal, Rensselaer nonetheless argues that the claimed improvement over the prior art is the novel application of case-based reasoning to the context of natural language processing and that this improvement renders the claims non-abstract at *Alice* step one. *See, e.g.*, Appellants' Br. 59 ("[T]he ['798] [p]atent . . . provid[ed] a novel [natural language processing] system that implemented, for the first time, case-based reasoning . . . ."). We disagree.

Generic use of AI without other parameters, such as "improving the mathematical algorithm or making machine learning better," is abstract. *Recentive*, 134 F.4th at 1213. A claim that merely restricts an abstract idea to a particular field or environment is still directed to the abstract idea. *See Recentive*, 134 F.4th at 1213; *GoTV*, 2026 WL 346200, at *8; *Intell. Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1366 (Fed. Cir. 2015). In *Recentive*, we determined that a claim that was directed towards applying machine learning to a "new field of use" was directed to an abstract idea because "the only thing the claims disclose about the use of machine learning is that machine learning is used in a new environment." *Recentive*, 134 F.4th at 1213. Rensselaer concedes that, under *Recentive*, claims that require nothing more than application of artificial intelligence to a new environment are directed to an abstract idea.

It follows under *Recentive* that in the context of software patents the application of a well-established idea (case-based reasoning or AI) to a novel environment (natural language processing) is abstract at step one of the *Alice* analysis.

II

Rensselaer argues that at step one, the claims of the '798 patent are different in one respect from the claims we

considered in *Recentive* and involve something more than the mere use of AI in natural language processing. The independent claims here recite a "metadata database, comprising at least one of a group of information types comprising: case information; keywords; information models; and database values." '798 patent, claims 1, 9, which Rensselaer argues on appeal represents an unconventional technological improvement that renders the claims, as a whole, non-abstract.

The use of case information in the claimed database simply involves the use of AI as applied to a new environment and cannot render the claims non abstract under *Recentive*. Nor does the database otherwise involve a non-abstract concept. Our cases suggest that adding new content to a database is insufficient to render claims directed to a database non-abstract. *See BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1288 (Fed. Cir. 2018) ("[A]n improvement to the information stored by a database is not equivalent to an improvement in the database's functionality."); *Intell. Ventures I LLC v. Erie Indemnity Co.*, 850 F.3d 1315, 1328 (Fed. Cir. 2017) (adding 'tags' to database entries was abstract); *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016) (considering "collecting information, including when limited to particular content" to be an "abstract idea[]"). We need not decide the question whether adding non-conventional data to a conventional database is non-abstract here because, here, the remaining information types comprising the claimed database were established to be conventional.[2]

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[2] Conventionality is often considered during the step two analysis, which requires a determination as to whether the claimed "improvements in the recited computer technology go beyond 'well-understood, routine, conventional activit[ies]' and render the invention patent-eligible." *BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility*

The use of a data structure that is "already routine and conventional" will not render a claim non-abstract. *See GoTV*, 2026 WL 346200, at *9.

The intrinsic record does not support Rensselaer's argument that the metadata database is otherwise unconventional. There is no suggestion in the specification that these other elements are not conventional or that the combination of the other elements is not conventional. The specification indicates that, generally, a metadata database "is well-known in the art of data and knowledge management tools," '798 patent, col. 16 ll. 16–18. The use of keywords is conventional. *See, e.g.*, *id.* col. 13 l. 61–col. 14 l. 1 (recognizing that conventional natural language processing methods utilized keywords). The district court's construction of "information models" suggest they are broadly and generically claimed. *See* J.A. 2613 (construing "information models" to mean "webs of concepts for enterprise databases"). The specification's description of "database values" as "database computational operators" likewise suggests that these, too, are generic components of conventional databases. '798 patent, col. 30 ll. 27–28.

As to extrinsic evidence, Amazon's expert testified that "the metadata database was admittedly well-understood, routine, and conventional at the time of the patent's filing." J.A. 3223. Contrary to Rensselaer's position on appeal that the claimed database is unconventional, Rensselaer did not present evidence below to argue there was a dispute of fact related to this theory that precluded a grant of summary judgment in Amazon's favor. Rensselaer's expert never asserted that, apart from the case-based component of the

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LLC, 827 F.3d 1341, 1348 (Fed. Cir. 2016) (alteration in original) (quoting *Alice*, 573 U.S. at 225). We have also "repeatedly analyzed conventionality at step one as well." *CareDx, Inc. v. Natera, Inc.*, 40 F.4th 1371, 1379 (Fed. Cir. 2022).

database, the claimed database was unconventional. This was insufficient to raise a genuine dispute of fact as to whether the remainder of the database was conventional. Once the district court determined that Amazon satisfied its burden, and we agree that it did, it was incumbent upon Rensselaer, as the nonmoving party, to produce some evidence refuting Amazon's claim. *See Enzo Biochem v. Gen-Probe, Inc.*, 424 F.3d 1276, 1284 (Fed. Cir. 2005) ("Attorney argument is no substitute for evidence."). Rensselaer failed to do so.

III

The arguments that Rensselaer raises fare no better at step two than step one. "An inventive concept . . . must be significantly more than the abstract idea itself." *BASCOM*, 827 F.3d at 1349. So too, "simply appending conventional steps, specified at a high level of generality," to a method "well known in the art" and consisting of "well-understood, routine, conventional activit[ies]" previously engaged in by workers in the field, is not sufficient to supply the inventive concept. *Alice*, 573 U.S. at 221–22, 225.

At step two, Rensselaer argues that "it is undisputed that case-based reasoning did not exist anywhere within the NLP field before the ['798] Patent," Appellants' Br. 52, and that the "ordered combination did not exist prior to the invention memorialized in the ['798] patent," *id.* at 54. However, these arguments speak to *novelty*, which is a separate inquiry, and we held in *Recentive* that at step two, the use of AI in a novel field is not an inventive concept. 134 F.4th at 1214–15. A conventional application of case-based reasoning, even to a novel environment, is abstract. Therefore, the application of case-based reasoning to natural language processing does not provide an inventive concept sufficient to render the claims patent-eligible at step two of *Alice*.

CONCLUSION

We have considered Rensselaer's other arguments[3] and find them unpersuasive. We therefore conclude that the claims of the '798 patent are directed to ineligible subject matter under § 101.

AFFIRMED

COSTS

Costs to Amazon.

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[3] It its opening brief, Rensselaer does not argue that any of the dependent claims contain elements that would change our analysis. In its reply brief, Rensselaer argues that the "reference dictionary" claimed in claims 4, 14, and the claims depending from those claims renders those claims patent eligible. These belated arguments, even if we do not consider them forfeited, are unavailing. The term, "reference dictionary" was construed to mean a "set of database entries or objects and their relations." J.A. 2613. There is no question that reference dictionaries were "commonly understood" in the art, J.A. 345, and we do not read the claims, as construed, to provide any structural details that suggest a different conclusion.