NYIPLA Fall CLE 2025:
Update on Patent Eligibility at the Federal Circuit and the USPTO

Moderated by: Charles Macedo
Panelists: Robert Frederickson
Joshua Hartman
Clint Mehall

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NYIPLA Fall CLE 2025
The Patentability of AI Post-*Recentive*

Charles Macedo
Partner, Amster, Rothstein & Ebenstein

Overview on **Patent Eligibility at the Federal Circuit and the USPTO**

- So far this year, the Federal Circuit has issued two important decisions on Patent Eligibility:
  - *Recentive Analytics Inc. v. Fox Corp.*
  - *PowerBlock Holdings Inc. v. IFIT Inc*.
- The PTAB has reversed over 40 patent eligibility rejections, and the Office issued its August 4, 2025 "Reminders on evaluating subject matter eligibility claims under 35 U.S.C. 101"
- Our panels will provide a review of these important developments and provide guidance to patent practitioners on how to use these developments in patent prosecution before the office and on appeal to the PTAB.

GOODWIN

NYIPLA Fall CLE 2025
The Patentability of AI Post-*Recentive*

Robert Frederickson
Partner, Goodwin

The AI/ML Section 101 Traps

“Mere Automation”

- Previously manual process
- Paper and pencil test

Data Manipulation

- Functional claim language (i.e., “effect” or “result”)
- “Generic” or “general purpose” computer terms
- Claiming “context,” not “manner”

Data, Math, & Algorithms

- New forms of data and information
- Transitory signals
- Improved mathematical and statistical techniques

Example Claim 1: U.S. Patent No. 11,386,367

1. Receive **event parameters**: venue availability, venue location, proposed ticket prices, performer fees, venue fees, scheduled performance
2. Receive **event target features**: event attendance, event profit, event revenue, event expenses

Claimed input and training data sources

3. Iteratively train **neural network ML model** or a **support vector ML model** to identify relationship between (1) event parameters and (2) event target features

Build / train specific ML models

4. Receive **user-specified event parameter** for future event and **prioritized event target features**.
5. Generate, "**via the trained ML model**," a schedule for the future series of live events that is optimized relative to one or more prioritized event target features

Use the trained ML model to generate a schedule

6. Detect real-time changes to event parameters and update, "**via the trained ML model**," the schedule that remains optimized in view of the real-time change.

Use the trained ML model to detect changes and update

The Federal Circuit's Holding

Federal Circuit's Opinion

- "[T]he patents are directed to the abstract idea of using a **generic machine learning** technique in a particular environment, with no inventive concept."
- "Both sets of patents rely on the use of **generic machine learning technology** in carrying out the claimed methods for generating event schedules and network maps."
- "The machine learning technology described in the patents is **conventional**, as the patents' specification demonstrate."
- "Stated differently, patents may be directed to abstract ideas where they disclose the use of an '**already available [technology]**, with [its] already available basic functions, to use as [a] tool[] in executing the claimed process." (quoting *SAP Am., Inc. v. InvestPic, LLC,* 898 F.3d 1161, 1169-70 (Fed. Cir. 2018)

"Today, we hold only the patents that 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, are patent ineligible under § 101

Post-*Recentive*: *Aon Re, Inc. v. Zesty.AI, Inc.* -PATENTABLE

1. A method for automatically categorizing a repair condition of a property characteristic, comprising:
    a. receiving, … a request for a property condition classification…;
    b. obtaining … an aerial image of a geographic region including the property;
    c. extracting … pixel groupings representing the property characteristic;
    d. determining, … 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**;
    e. determining, … 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**;
    f. 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
    g. 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.

Post-*Recentive*: *All Terminal Services, Inc. v. Roboflow* –UNPATENTABLE

1. A control system for an inventory management facility, the control system comprising:
    a. one or more shipping assets in the inventory management facility;
    b. one or more sensors configured to generate sensor data of the one or more shipping assets; and
    c. a server in communication with the one or more sensors … the one or more processors to perform steps to:
        i. [*Use a database to track shipping movements*]
    d. wherein the server is configured to perform optical character recognition (OCR) on the image data …
    e. wherein the server is configured to perform machine learning on the image data including executing at least one of:
        a. a first machine learning model comprising a neural network trained to predict a location of text sequences in the image data; or
        b. a second machine learning model comprising a neural network for scanning the text sequences and predicting a sequence of missing characters; or
        c. a combination thereof,
    f. [additional functional and hardware limitations]

Merchant & Gould
A Technology & Innovation Law Firm

NYIPLA Fall CLE 2025
PowerBlock v. iFIT (CAFC 2025)

Josh Hartman
Partner, Merchant & Gould

Selectorized Dumbbells

The ’771 Patent, “Weight Selection and Adjustment System for Selectorized Dumbbells Including Motorized Selector Positioning”

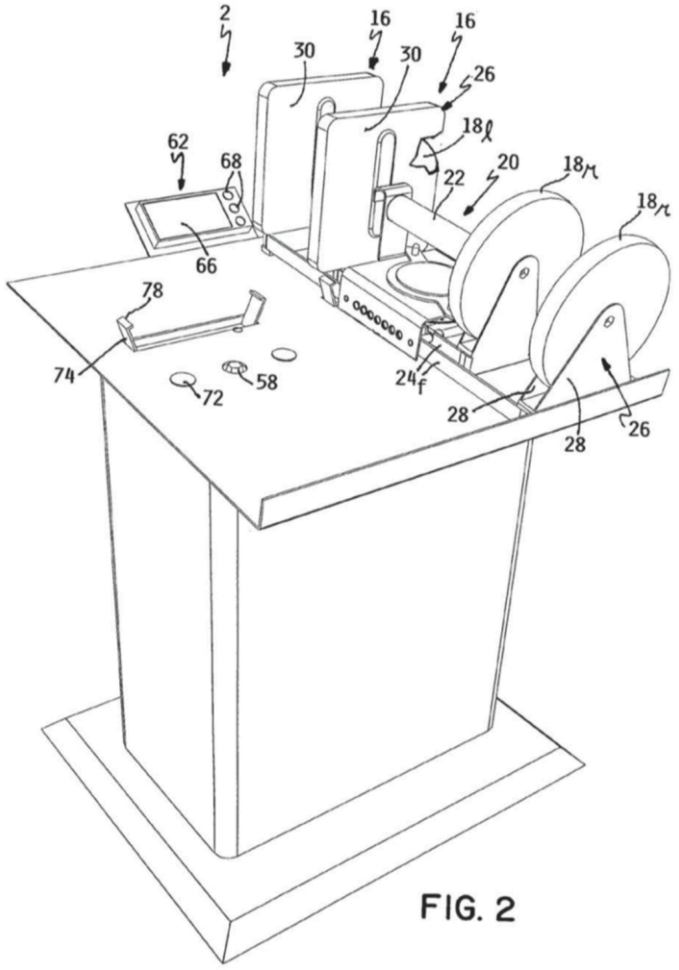
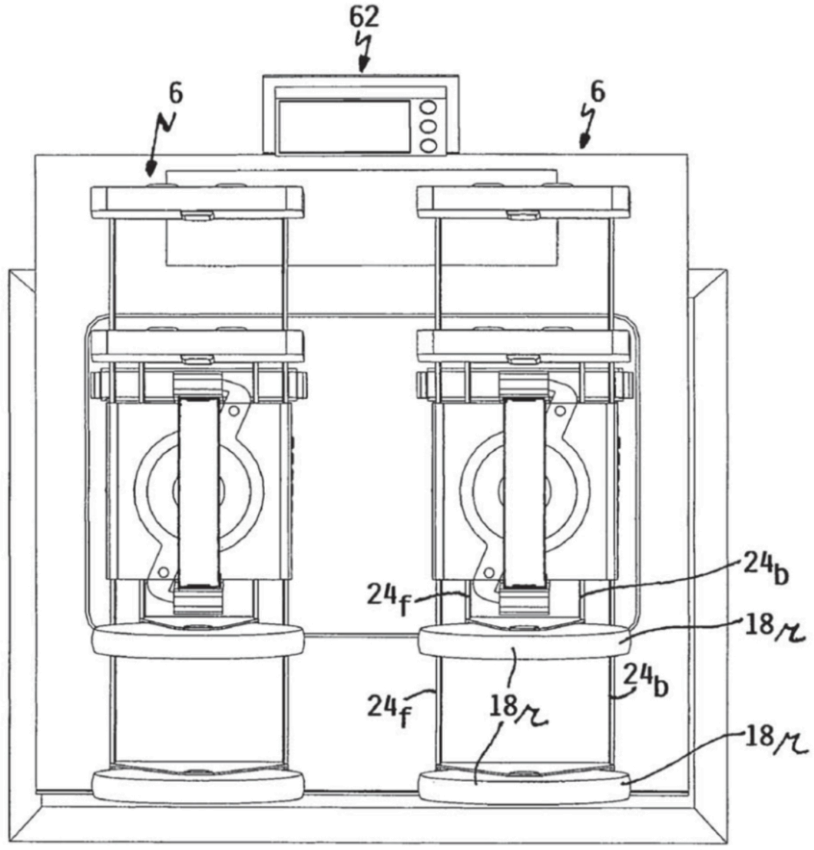


FIG. 2



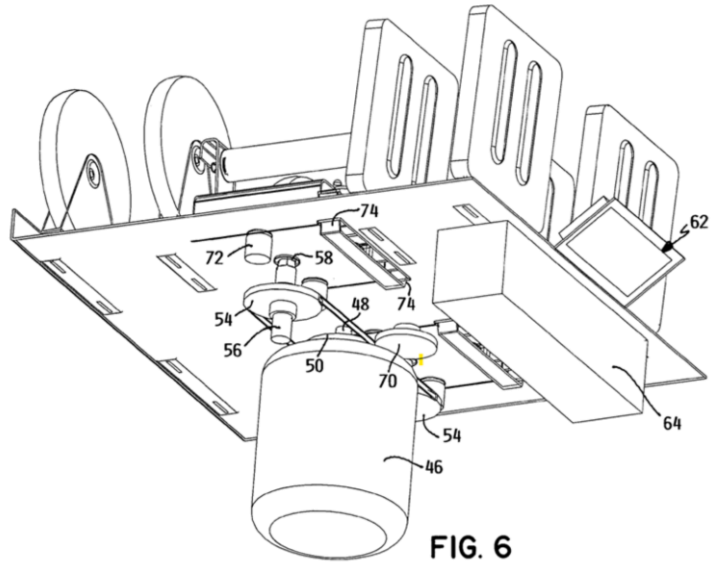


FIG. 6

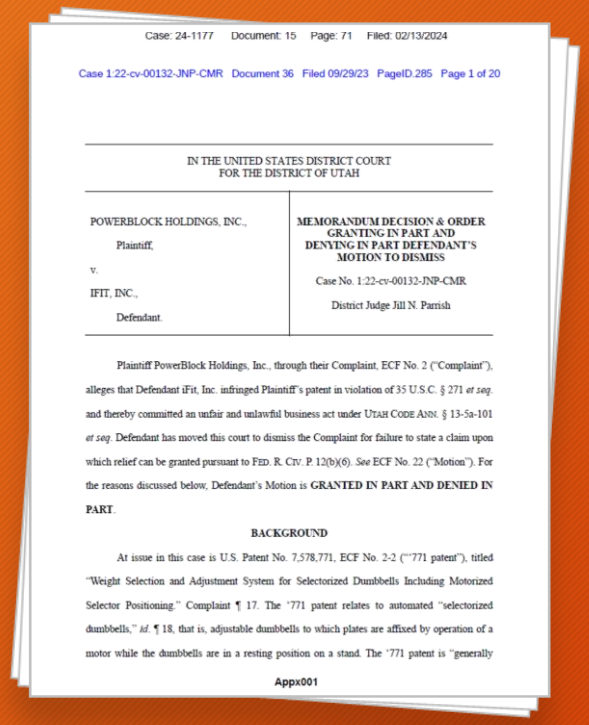
Independent Claim 1

1. A weight selection and adjustment system for a selectorized dumbbell, which comprises:
   (a) a selectorized dumbbell, which comprises:
      (i) a stack of nested left weight plates and a stack of nested right weight plates;
      (ii) a handle having a left end and a right end; and
      (iii) a movable selector having a plurality of different adjustment positions in which the selector may be disposed, wherein the selector is configured to couple selected numbers of left weight plates to the left end of the handle and selected numbers of right weight plates to the right end of the handle with the selected numbers of coupled weight plates differing depending upon the adjustment position in which the selector is disposed, thereby allowing a user to select for use a desired exercise weight to be provided by the selectorized dumbbell; and
   (b) an electric motor that is operatively connected to the selector at least whenever a weight adjustment operation takes place, wherein the electric motor when energized from a source of electric power physically moves the Selector into the adjustment position corresponding to the desired exercise weight that was selected for use by the user.

Independent Claim 20

20. A weight selection and adjustment system for a dumbbell, which comprises:
(a) a dumbbell that provides an exercise weight that is lifted by a user when the user grips and lifts a handle of the dumbbell, wherein the exercise weight provided by the dumbbell is adjustable by coupling more or fewer weight plates to each end of the handle;
(b) an electric motor that may be selectively energized and when energized will cause a desired number of weight plates to be coupled to each end of the handle; and
(c) a data entry device to allow the user to input a weight Selection decision that operatively controls the energization of the motor to adjust the exercise weight of the dumbbell in accordance with the weight selection decision input into the data entry device by the user.

District Court Granted Motion to Dismiss on Section 101 Grounds



Case: 24-1177 Document: 15 Page: 71 Filed: 02/13/2024

Case 1:22-cv-00132-JNP-CMR Document 36 Filed 09/29/23 PageID.285 Page 1 of 20

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF UTAH

POWERBLOCK HOLDINGS, INC.,
Plaintiff,
v.
IFIT, INC.,
Defendant.

MEMORANDUM DECISION & ORDER GRANTING IN PART AND DENYING IN PART DEFENDANT'S MOTION TO DISMISS

Case No. 1:22-cv-00132-JNP-CMR

District Judge Jill N. Parrish

Plaintiff PowerBlock Holdings, Inc., through their Complaint, ECF No. 2 ("Complaint"), alleges that Defendant iFit, Inc. infringed Plaintiff's patent in violation of 35 U.S.C. § 271 *et seq.* and thereby committed an unfair and unlawful business act under UTAH CODE ANN. § 13-5a-101 *et seq.* Defendant has moved this court to dismiss the Complaint for failure to state a claim upon which relief can be granted pursuant to FED. R. CIV. P. 12(b)(6). *See* ECF No. 22 ("Motion"). For the reasons discussed below, Defendant's Motion is **GRANTED IN PART AND DENIED IN PART.**

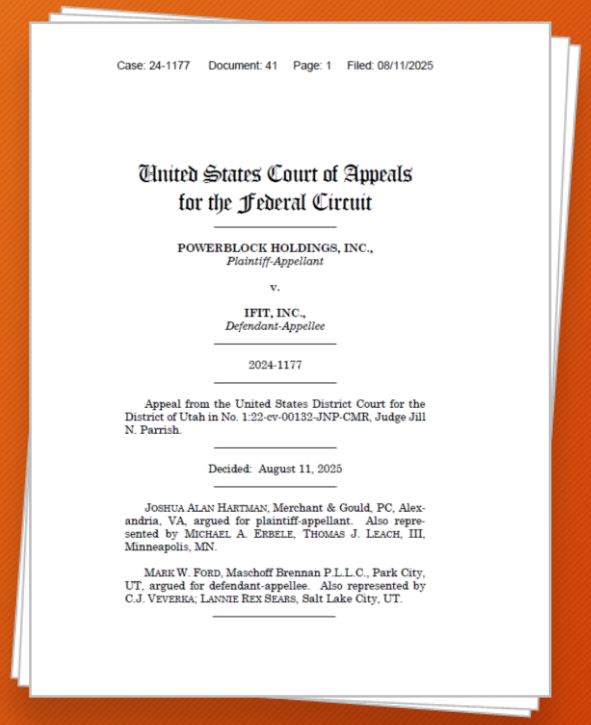
BACKGROUND

At issue in this case is U.S. Patent No. 7,578,771, ECF No. 2-2 ("'771 patent"), titled "Weight Selection and Adjustment System for Selectorized Dumbbells Including Motorized Selector Positioning." Complaint ¶ 17. The '771 patent relates to automated "selectorized dumbbells," *id.* ¶ 18, that is, adjustable dumbbells to which plates are affixed by operation of a motor while the dumbbells are in a resting position on a stand. The '771 patent is "generally

Appx001

- "Merely eliminating human error by automating processes is not enough to make claims patent-eligible"
- Claims 20 is "impermissibly broad and outcome-oriented..."
  - Use of electric motor to couple weight plates to handle "is insufficiently specific to constitute a specific solution for accomplishing automated dumbbell weight stacking."
  - Claim 20 "would thus seem to cover all or substantially all systems for automated dumbbell plate stacking involving electric motors and data entry systems and is therefore overly broad."
- Claim 20 "outlines only the conceivably necessary components for any automated weight-stacking mechanism."
  - Claims 1 and 20 claim "weight selection and adjustment systems consisting of the two or three generic components, rather than any particular system or method of selectorized weight stacking…"

Federal Circuit: Reversed – Claims Not Directed to Abstract Idea



Case: 24-1177 Document: 41 Page: 1 Filed: 08/11/2025

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for the Federal Circuit

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Plaintiff-Appellant

v.

IFIT, INC.,
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2024-1177

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Decided: August 11, 2025

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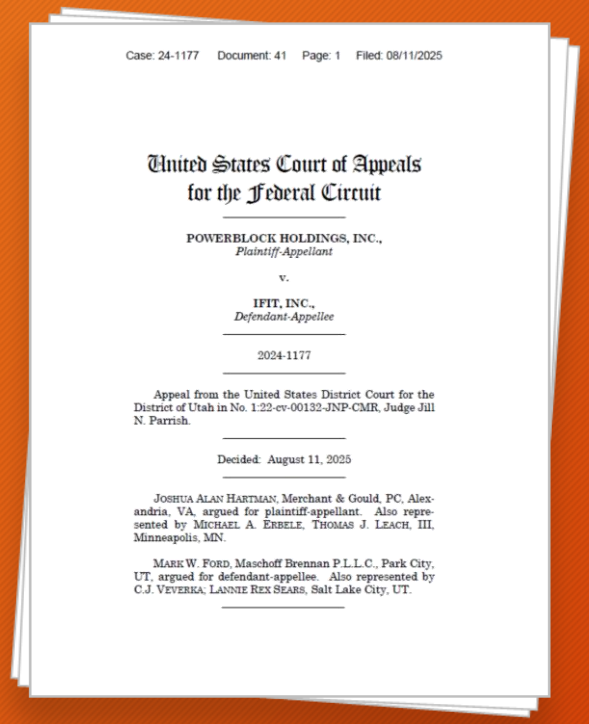
MARK W. FORD, Maschoff Brennan P.L.L.C., Park City, UT, argued for defendant-appellee. Also represented by C.J. VEVERKA; LANNIE REX SEARS, Salt Lake City, UT.

"PowerBlock Holdings, Inc. appeals the district court's decision to partially dismiss its complaint after concluding that almost all claims of the asserted patent are ineligible under 35 U.S.C. §101. Because we conclude that the relevant claims of the asserted patent are not directed to an abstract idea, we reverse and remand for further proceedings."

146 F.4th 1366, 1368 (Fed. Cir. 2025)

Federal Circuit: Although Broad, Claims Sufficiently Specific



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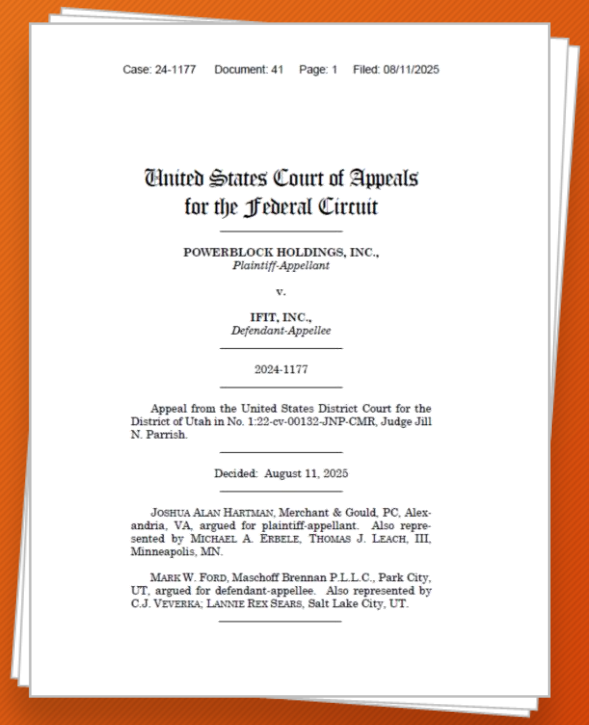
"Although claim 1 is broad, we do not agree that it provides no meaningful limitation on how to accomplish automated weight stacking such that it would preempt any weight selection and adjustment system."

146 F.4th at 1371-72

"In the context of this rather simple mechanical invention, we conclude that claim 1 goes beyond claiming the broad concept of automating a known technique and provides a sufficiently specific manner of performing automated weight stacking."

146 F.4th at 1372

Federal Circuit: Distinguished Cases Involving Intangible Effects



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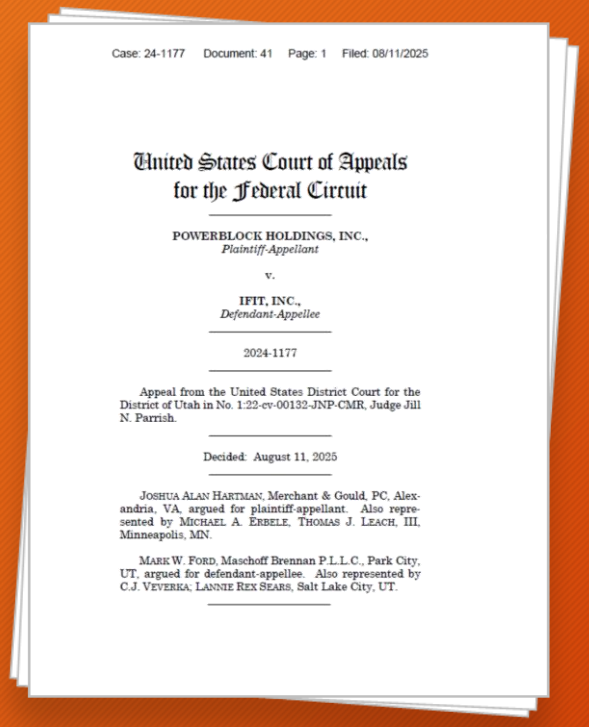
"Claim 1 of the '771 patent is different. It is directed to an eligible mechanical invention—an improved 'machine,' i.e., 'a concrete thing, consisting of parts, or of certain devices and combination of devices.'"

146 F.4th at 1372 (quoting *Sirf Tech., Inc. v. ITC*, 601 601 F.3d 1319, 1332 (Fed. Cir. 2010)

"Claim 1 recites elements of a mechanical device including an electric motor that physically moves a selector that is both connected to the motor and configured to couple selected numbers of left weight plates to the left end of a dumbbell handle and selected numbers of right weight plates to the right end of the dumbbell handle to automatically adjust dumbbell weight."

146 F.4th at 1372

Federal Circuit: At Step One, Must Consider Claim as a Whole, Including Conventional Limitations



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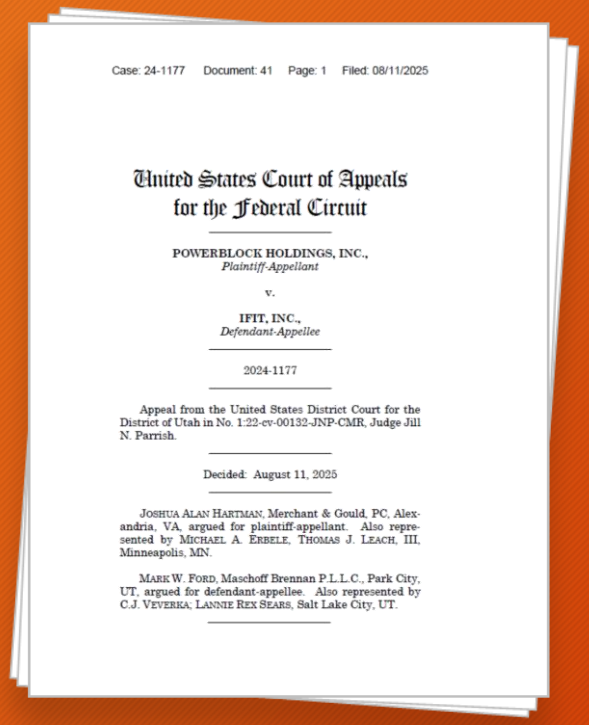
"iFit urges us to ignore the clam limitations involving conventional selectorized dumbbell components when assessing whether claim 1 is directed to a specific structure or an abstract idea....But the *Alice* step one inquiry involves consideration of the claims '*in their entirety* to ascertain whether their character as a *whole* is directed to excluded subject matter.'"

146 F.4th at 1372 (quoting *CardioNet*, 955 F.3d at 1367 (emphasis added))

"We decline iFit's invitation to read out or ignore limitations in claim 1 here merely because they can be found in the prior art."

146 F.4th at 1373

Federal Circuit: Eligibility ≠ Anticipation/Obviousness



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"We caution parties and tribunals not to conflate the separate novelty and obviousness inquiries under 35 U.S.C. §§ 102 and 103, respectively, with the step one inquiry under § 101."

146 F.4th at 1373 n.3

Takeaways

- Broadly stated section 101 principles do not readily apply to mechanical inventions—facts matter
  - Broad claims not necessarily ineligible (at least for mechanical inventions)
  - Moving parts better than physical structures
- Conventional limitations are not a Step One problem
- Eligibility ≠ anticipation/obviousness

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INTELLECTUAL PROPERTY

NYIPLA Fall CLE 2025
101 Rejections and PTAB Ex Parte Appeals

Clint Mehall
Partner, Davidson Kappel LLC

Appealing Eligibility from 2021 to 2024

- 2021 – 87.1% Affirmance Rate
- 2022 – 88.4% Affirmance Rate
- 2023 – 91.1% Affirmance Rate
- 2024 – 88.6% Affirmance Rate

*Stats from PatentDocs

Appealing Eligibility from 2021 to 2025

Year	Reversals	Affirmance	Reverse rate	Affirm rate
2025	53	676	7.27%	92.73%
2024	57	628	8.32%	91.68%
2023	42	486	7.95%	92.05%
2022	38	446	7.85%	92.15%
2021	101	695	12.69%	87.31%

*From search on PatentAdvisor

2025 - Breakdown of 101 Reversals

Ground	Reversals	Reasoning
Step 1	2	Does not cover transitory signal
Step 2A, Prong 1	8	Does not recite judicial exception
Step 2A, Prong 2	27	Involves practical application of any judicial exception
Step 2B	5	Involves inventive concept
Berkheimer	5	Examiner did not provide evidence of conventionality

Director Squires PTAB Appeals Review Panel ("ARP")

- *Ex parte DESJARDINS*, Appeal 2024-000567, App. 16/319040 (PTAB Sep. 26, 2025)
- Prior PTAB decision entered new ground of 101 rejection
- Squires relied on *Enfish* to vacate 101 rejection

Director Squires PTAB ARP continued

- “In particular, *En fish* recognized that "[m]uch of the advancement made in computer technology consists of improvements to software that, by their very nature, may not be defined by particular physical features but rather by logical structures and processes." 822 F.3d at 1339. Moreover, because "[s]oftware can make non-abstract improvements to computer technology, just as hardware improvements can," the Federal Circuit held that the eligibility determination should turn on whether "the claims are directed to an improvement to computer functionality versus being directed to an abstract idea." *Id.* at 1336.”

Director Squires PTAB ARP continued

- Specification identifies improvements in training the machine learning model itself, and the claims reflect such an improvement
- Claimed feature “adjust the first values of the plurality of parameters to optimize performance of the machine learning model on the second machine learning task while protecting performance of the machine learning model on the first machine learning task."
- Improvements:
  - "effectively learn new tasks in succession whilst protecting knowledge about previous tasks”
  - allows AI systems to "us[e] less of their storage capacity" and enables "reduced system complexity"

Director Squires PTAB ARP continued

- Different stages of resolution
  - Pre-Appeal Brief Request for Review
  - Appeal Brief
  - PTAB Decision
- Lead with technical arguments, when possible, but always cite some case law
- Argue Dependent Claims
- Take the gloves off when attacking the examiner's reasoning
- Always file a Reply Brief reiterating your strongest arguments
  - Address each important argument in Examiner's Answer

Director Squires PTAB ARP continued

- “Under a charitable view, the overbroad reasoning of the original panel below is perhaps understandable given the confusing nature of existing *§* 101 jurisprudence, but troubling, because this case highlights what is at stake. Categorically excluding AI innovations from patent protection in the United States jeopardizes America's leadership in this critical emerging technology. Yet, under the panel's reasoning, many AI innovations are potentially unpatentable-even if they are adequately described and nonobvious-because the panel essentially equated any machine learning with an unpatentable "algorithm" and the remaining additional elements as "generic computer components," without adequate explanation. Dec. 24. Examiners and panels should not evaluate claims at such a high level of generality. ”

Director Squires PTAB ARP continued

- “However, it is with this view that the panel's *sua sponte* action is most troubling, as it eschewed the clear teachings of *Enfish*, and instead substituted only a cursory analysis that ignored this well-settled precedent. Panels should treat such precedent with more care, especially when acting *sua sponte*.
- At the same time, the claims at issue stand rejected under§ 103. This case demonstrates that§§ 102, 103 and 112 are the traditional and appropriate tools to limit patent protection to its proper scope. These statutory provisions should be the focus of examination. ”

Since Squires Decision

- New Grounds of 101 Rejection in 2025 up until 9/26/25 – 51 decisions
- New Grounds of 101 Rejection since 9/26/25 – 1 decision (“drug management system”)
- Zero Rehearing Decisions Granted vacating 101 rejection in 2025 up until 9/26/25 (and one one since the beginning of 2023)
- One Rehearing Decision Granted vacating 101 rejection since 9/26/25
  - Three Denied during same period

Other Observations

- 291 PTAB Reversals of 101 Rejections since 2021
- 130 mentioned Diamond v. Diehr
- 94 mentioned Enfish
- 49 mentioned Berkheimer
- 46 mentioned McRO
- 36 mentioned DDR Holdings
- 26 mentioned BASCOM

Powerblock Holdings, Inc. v. IFit, Inc.

United States Court of Appeals for the Federal Circuit

August 11, 2025, Decided

2024-1177

Reporter
146 F.4th 1366 *; 2025 U.S. App. LEXIS 20229 **; 2025 LX 373478; 2025 U.S.P.Q.2D (BNA) 1049; 2025 WL 2301853

POWERBLOCK HOLDINGS, INC., Plaintiff-Appellant v. IFIT, INC., Defendant-Appellee

Prior History: [1]** Appeal from the United States District Court for the District of Utah in No. 1:22-cv-00132-JNP-CMR, Judge Jill N. Parrish.

PowerBlock Holdings, Inc. v. Ifit, Inc., 2023 U.S. Dist. LEXIS 176101, 2023 WL 6377781 (D. Utah, Sept. 29, 2023)

Disposition: REVERSED AND REMANDED.

Core Terms

patent, selectorized, dumbbell, abstract idea, user, plate, stack, district court, subject matter, automate, handle, invent, eligibility, ifit, couple, patent-ineligible, recite, electric motor, wirelessly, patent-eligible, ineligible, technology, energize, entirety

Case Summary

Overview
Key Legal Holdings

- Claims 1-18 and 20 of U.S. Patent No. 7,578,771 are not directed to an abstract idea under Alice step one and are therefore patent eligible under *35 U.S.C.S. § 101*.
- Claim 1 is limited to a specific implementation of a technological improvement to selectorized dumbbells, providing enough specificity and structure to satisfy § 101.
- The Alice step one inquiry requires consideration of claims in their entirety to determine if they are directed to excluded subject matter, and courts should not ignore limitations merely because they can be found in prior art.
- Courts should not conflate novelty and obviousness inquiries under *35 U.S.C.S. §§ 102* and 103 with the step one inquiry under § 101.

Material Facts

- PowerBlock Holdings, Inc. owns U.S. Patent No. 7,578,771, which relates to selectorized dumbbells and a system for selecting and adjusting their weight.
- The patent addresses drawbacks of prior selectorized dumbbells, including the risk of weights detaching if selectors are not properly engaged and the difficulty of ensuring identical weight settings on paired dumbbells.
- Claim 1 describes a weight selection system comprising a selectorized dumbbell with stacks of nested weight plates, a handle, a movable selector with different adjustment positions, and an electric motor that physically moves the selector to adjust the weight.
- Claim 20 describes a similar system with an electric motor and a data entry device allowing users to input weight selection decisions.
- PowerBlock sued iFit for patent infringement in the U.S. District Court for the District of Utah.

Controlling Law

- *35 U.S.C.S. § 101*, which defines patent-eligible subject matter.
- *Alice Corp. v. CLS Bank Int'l, 573 U.S. 208 (2014)*, which established the two-step framework for determining patent eligibility.

- Federal Circuit precedents interpreting and applying the Alice framework, including *CardioNet, LLC v. InfoBionic, Inc., 955 F.3d 1358 (Fed. Cir. 2020)* and *McRO, Inc. v. Bandai Namco Games Am. Inc., 837 F.3d 1299 (Fed. Cir. 2016)*.
- *Diamond v. Diehr, 450 U.S. 175 (1981)*, which cautions against dissecting claims into old and new elements for § 101 analysis.

Court Rationale

The Federal Circuit reversed the district court's determination that claims 1-18 and 20 were directed to the abstract idea of automated weight stacking. The court reasoned that: Claim 1 is not directed to an abstract idea because it provides meaningful limitations on how to accomplish automated weight stacking, including specific mechanical components and their relationships. The claim describes a particular type of dumbbell with specific components (nested weight plates, handle, movable selector) and an electric motor operatively connected to the selector that physically moves it to different positions. Unlike cases involving abstract ideas implemented on generic computers, this patent claims a concrete mechanical improvement to a physical device. The district court erred by focusing too much on the general concept of automation rather than the specific mechanical implementation described in the claims. The court rejected iFit's argument that conventional dumbbell components should be ignored in the § 101 analysis, emphasizing that claims must be considered in their entirety. The court distinguished this case from University of Florida and Chamberlain, which involved abstract ideas of data communication rather than specific mechanical improvements.

Outcome
Procedural Outcome

The Federal Circuit reversed the district court's partial dismissal of PowerBlock's complaint and remanded the case for further proceedings. The court held that claims 1-18 and 20 of the '771 patent are patent-eligible under 35 U.S.C.S. § 101. Costs were awarded to PowerBlock as the appellant.

LexisNexis® Headnotes

Civil Procedure > Appeals > Standards of Review > De Novo Review

Civil Procedure > ... > Defenses, Demurrers & Objections > Motions to Dismiss > Failure to State Claim

HN1 **Standards of Review, De Novo Review**

A district court's dismissal for failure to state a claim is reviewed under the regional circuit's law. The Tenth Circuit reviews such dismissals de novo, accepting all well-pled factual allegations as true and viewing these allegations in the light most favorable to the nonmoving party.

Patent Law > Jurisdiction & Review > Standards of Review > De Novo Review

Patent Law > Subject Matter

HN2 **Standards of Review, De Novo Review**

A determination that a claim is directed to patent-ineligible subject matter is reviewed de novo.

Patent Law > Subject Matter

HN3 **Patent Law, Subject Matter**

35 U.S.C.S. § 101 provides that 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. The Supreme Court has identified three types of subject matter that are not patent-eligible: Laws of nature, natural phenomena, and abstract ideas are not patentable. The concern that drives this exclusionary principle is one of pre-emption. The abstract ideas category embodies the longstanding rule that an idea of itself is not patentable. But an invention is not rendered ineligible for patent simply because it involves an abstract concept. Applications of abstract concepts to a new and useful end are eligible for patent protection.

Real Property Law > Title Quality > Marketable Title > Abstracts

HN4 **Marketable Title, Abstracts**

The Supreme Court has articulated a two-step test for examining patent eligibility. At step one, the claims are considered in their entirety to ascertain whether their character as a whole is directed to excluded subject matter. The patent's written description is also considered, as it informs understanding of the claims. If the claims are not directed to a patent-ineligible concept under Alice step one, the claims satisfy *35 U.S.C.S. § 101* and proceeding to the second step is unnecessary. If the claims are directed to a patent-ineligible concept, however, Alice step two must be considered. In this step, the elements of each claim both individually and as an ordered combination are considered to determine whether the additional elements transform the nature of the claim into a patent-eligible application.

Patent Law > Subject Matter

HN5 **Patent Law, Subject Matter**

At Alice step one, courts look to whether a patent's claims 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.

Patent Law > Subject Matter

HN6 **Patent Law, Subject Matter**

The broad concept of communicating information wirelessly, without more, is an abstract idea for purposes of patent eligibility.

Patent Law > Subject Matter

HN7 **Patent Law, Subject Matter**

The Alice step one inquiry involves consideration of the claims in their entirety to ascertain whether their character as a whole is directed to excluded subject matter. Courts must be careful to avoid oversimplifying the claims by looking at them generally and failing to account for the specific requirements of the claims. At some level, all inventions embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.

Patent Law > Subject Matter

HN8 **Patent Law, Subject Matter**

It is inappropriate to dissect the claims into old and new elements and then to ignore the presence of the old elements in the *35 U.S.C.S. § 101* patent eligibility analysis.

Patent Law > Anticipation & Novelty

Patent Law > Subject Matter

Patent Law > Nonobviousness

HN9 **Patent Law, Anticipation & Novelty**

Parties and tribunals should not conflate the separate novelty and obviousness inquiries under *35 U.S.C.S. §§ 102* and 103, respectively, with the step one inquiry under *35 U.S.C.S. § 101*. The obligation to determine what type of discovery is sought to be patented must precede the determination of whether that discovery is, in fact, new or obvious.

Counsel: JOSHUA ALAN HARTMAN, Merchant & Gould, PC, Alex-andria, VA, argued for plaintiff-appellant. Also repre-sented by MICHAEL A. ERBELE, THOMAS J. LEACH, III, Minneapolis, MN.

MARK W. FORD, Maschoff Brennan P.L.L.C., Park City, UT, argued for defendant-appellee. Also represented by C.J. VEVERKA; LANNIE REX SEARS, Salt Lake City, UT.

Judges: Before TARANTO and STOLL, Circuit Judges, and SCARSI, District Judge.[1]

Opinion by: STOLL

Opinion

[*1368] STOLL, *Circuit Judge*.

PowerBlock Holdings, Inc. appeals the district court's decision to partially dismiss its complaint after concluding that almost all claims of the asserted patent are ineligible under 35 U.S.C. § 101. Because we

[1] Honorable Mark C. Scarsi, District Judge, United States District Court for the Central District of California, sitting by designation.

conclude that the relevant claims of the asserted patent are not directed to an abstract idea, we reverse and remand for further proceedings.

BACKGROUND

PowerBlock Holdings, Inc. ("PowerBlock") filed suit in the U.S. District Court for the District of Utah, alleging that iFit, Inc. ("iFit") infringed PowerBlock's U.S. Patent No. 7,578,771 and violated *Utah's Unfair Competition Act*. The '771 patent "relates generally to exercise equipment" **[*1369]** and, more particularly, "to selectorized **[**2]** dumbbells and to an overall, integrated system for selecting and adjusting the weight of a selectorized dumbbell or a pair of selectorized dumbbells." U.S. Patent No. 7,578,771 col. 1 ll. 15-19. The specification's background section describes the drawbacks of prior selectorized dumbbells and the problem to be solved by the claimed invention:

> While selectorized dumbbells represent a major advance in exercise equipment, the selectors used to adjust the weight of the dumbbell are mechanical members that must be directly gripped and manipulated by the user....
>
> With mechanical and user positionable selectors, there is always the possibility that the user might not fully or correctly engage the selector. If this were to occur, one or more weights might inadvertently detach from the handle while the dumbbell is in use. This poses a risk of injury to the user or a risk of damage to the dumbbell. Obviously, this is a disadvantage.
>
> . . . The weight of each dumbbell must be individually set or adjusted.... The user must take care to see that the selectors on the two dumbbells are identically positioned to provide the same weight on each dumbbell....
>
> . . . There is a need in the art to automate and ease the task of adjusting **[**3]** the weight of selectorized dumbbells.

Id. col. 1 l. 38-col. 2 l. 10.

Independent claims 1 and 20 are relevant on appeal and reproduced below.

> 1. A weight selection and adjustment system for a selectorized dumbbell, which comprises:
>
> (a) a selectorized dumbbell, which comprises:
>
> (i) a stack of nested left weight plates and a stack of nested right weight plates;
>
> (ii) a handle having a left end and a right end; and
>
> (iii) a movable selector having a plurality of different adjustment positions in which the selector may be disposed, wherein the selector is configured to couple selected numbers of left weight plates to the left end of the handle and selected numbers of right weight plates to the right end of the handle with the selected numbers of coupled weight plates differing depending upon the adjustment position in which the selector is disposed, thereby allowing a user to select for use a desired exercise weight to be provided by the selectorized dumbbell; and
>
> (b) an electric motor that is operatively connected to the selector at least whenever a weight adjustment operation takes place, wherein the electric motor when energized from a source of electric power physically moves the selector into **[**4]** the adjustment position corresponding to the desired exercise weight that was selected for use by the user.
>
> 20. A weight selection and adjustment system for a dumbbell, which comprises:
>
> (a) a dumbbell that provides an exercise weight that is lifted by a user when the user grips and lifts a handle of the dumbbell, wherein the exercise weight provided by the dumbbell is adjustable by coupling more or fewer weight plates to each end of the handle;
>
> (b) an electric motor that may be selectively energized and when energized will cause a desired number of weight plates to be **[*1370]** coupled to each end of the handle; and
>
> (c) a data entry device to allow the user to input a weight selection decision that operatively controls the energization of the motor to adjust the exercise weight of the dumbbell in accordance with the weight selection decision input into the data entry device by the user.

Id. col. 11 l. 54-col. 12 l. 10, col. 14 ll. 33-47.

Invoking 35 U.S.C. § 101, iFit filed a *Rule 12(b)(6)* motion to dismiss for failure to state a claim, which the district court denied in part and granted in part. ***PowerBlock Holdings, Inc. v. Ifit, Inc.***, *No. 22-132, 2023 U.S. Dist. LEXIS 176101, 2023 WL 6377781 (D. Utah Sept. 29, 2023)*; *Fed. R. Civ. P. 12(b)(6)*. Applying the Supreme Court's two-step framework for determining patent eligibility, the district court

determined that all but **[**5]** one claim of the '771 patent are ineligible under § 101.

At the first step, the district court held that claims 1-18 and 20 of the '771 patent are "directed to an abstract idea and implemented using generic components requiring performance of the same basic process." *PowerBlock, 2023 U.S. Dist. LEXIS 176101, 2023 WL 6377781, at *7* ("[T]he language of claims 1-18 and claim 20, read in light of the patent as a whole, is defined by the general outcome or effect of automated selectorized dumbbell weight stacking ...."). At the second step, the district court concluded that, because claims 1-18 and claim 20 "do not add significantly more than the abstract idea of the end-result of an automated selectorized dumbbell," the claims fail the two-step test and are ineligible. *2023 U.S. Dist. LEXIS 176101, [WL] at *9*. Accordingly, the district court granted iFit's motion to dismiss as to claims 1-18 and 20.

Claim 19, on the other hand, "claims 'means selectively actuable by the user for adjusting the exercise weight of each dumbbell without requiring the user to physically contact and move the selector himself or herself.'" *2023 U.S. Dist. LEXIS 176101, [WL] at *8* (quoting '771 patent col. 14 ll. 29-32). The district court described "the function claimed [in claim 19 as] dumbbell weight-adjustment not requiring physical contact by the user," and noted that "the structures described **[**6]** in the patent specification might include, for example, 'selector 35' and the 'front and back pin arrays 36f and 36b,' and other components." *Id.* (quoting '771 patent col. 6 ll. 31-56). Claim 19, the district court thus explained, "may not be subject to the abstraction that ails independent claims 1 and 20 and, as a result, dependent claims 2-18." *Id.* The district court denied the motion to dismiss as to claim 19 because "the parties failed to meaningfully argue this issue." *Id.*[2]

PowerBlock appeals the district court's judgment as to claims 1-18 and 20. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

DISCUSSION

I

"We review a district court's dismissal for failure to state a claim under the regional circuit's law. The Tenth Circuit reviews such dismissals de novo, 'accept[ing] all well-pled factual allegations as true and view[ing] these allegations in the light most favorable to the nonmoving party.'" *Simio, LLC v. FlexSim Software Prods., Inc., 983 F.3d 1353, 1358 (Fed. Cir. 2020)* (alterations in original) (citations **[*1371]** omitted). We also "review de novo a determination that a claim is directed to patent-ineligible subject matter." *CardioNet, LLC v. InfoBionic, Inc., 955 F.3d 1358, 1367 (Fed. Cir. 2020)*.

"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 **[**7]** therefor ...." 35 U.S.C. § 101. "The Supreme Court has identified three types of subject matter that are not patent-eligible: 'Laws of nature, natural phenomena, and abstract ideas are not patentable.'" *CardioNet, 955 F.3d at 1367* (quoting *Alice Corp. v. CLS Bank Int'l, 573 U.S. 208, 216, 134 S. Ct. 2347, 189 L. Ed. 2d 296 (2014)*). "[T]he concern that drives this exclusionary principle [i]s one of pre-emption." *Alice, 573 U.S. at 216*. "The abstract ideas category, the subject matter at issue in this case, embodies the longstanding rule that an idea of itself is not patentable." *CardioNet, 955 F.3d at 1367* (cleaned up) (quoting *Alice, 573 U.S. at 218*). But "an invention is not rendered ineligible for patent simply because it involves an abstract concept." *Alice, 573 U.S. at 217*. Applications of abstract concepts to a new and useful end are eligible for patent protection. *Id.*

The Supreme Court has "articulated a two-step test for examining patent eligibility." *CardioNet, 955 F.3d at 1367*. "At step one, we consider the claims 'in their entirety to ascertain whether their character as a whole is directed to excluded subject matter.' We also consider the patent's written description, as it informs our understanding of the claims." *Id. at 1367-68* (citations omitted). "If the claims are not directed to a patent-ineligible concept under *Alice* step [one], 'the claims satisfy § 101 and we need not proceed to the second step.'" *Id. at 1368* (quoting *Data Engine Techs. LLC v. Google LLC, 906 F.3d 999, 1007 (Fed. Cir. 2018)*). "If the claims are directed **[**8]** to a patent-ineligible concept, however, we next consider *Alice* step two. In this step, we consider the elements of each claim both individually and as an ordered combination to determine whether the additional elements transform the nature of the claim into a patent-eligible application." *Id.* (citations and internal quotation marks omitted).

II

[2] Pursuant to *Federal Rule of Civil Procedure 41(a)(1)(A)(ii)*, the parties agreed to dismiss without prejudice PowerBlock's claim for infringement of claim 19 and its related claim under Utah's Unfair Competition Act. J.A. 281-83.

We begin by analyzing claim 1 of the '771 patent at *Alice* step one. At this step, "we look to whether the claims '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.'" *Id.* (quoting *McRO, Inc. v. Bandai Namco Games Am. Inc., 837 F.3d 1299, 1314 (Fed. Cir. 2016)*). We hold that claim 1 is not directed to an abstract idea.

The crux of the district court's erroneous step one analysis is its incorrect determination that claim 1 is directed to the abstract idea of automated weight stacking, "giv[ing] rise to a preemption problem." *PowerBlock, 2023 U.S. Dist. LEXIS 176101, 2023 WL 6377781, at *7*. The district court concluded that claim 1 is "directed towards the general end of automated weight stacking" because it "seek[s] to claim systems comprising weight selection and adjustment systems consisting of the two or three 'generic' components, rather than any particular **[**9]** system or method of selectorized weight stacking." *2023 U.S. Dist. LEXIS 176101, [WL] at *6* (citation omitted). We reach a different conclusion. Although claim 1 is broad, we do not agree that it provides no meaningful limitations on how to accomplish automated weight stacking such that it would "preempt any weight-selection **[*1372]** and adjustment system." *2023 U.S. Dist. LEXIS 176101, [WL] at *7*.

Claim 1 is limited to a particular type of dumbbell: a selectorized dumbbell with a stack of nested left weight plates, a stack of nested right weight plates, a handle, and a movable selector with different adjustment positions, where moving the selector to different adjustment positions changes the number of left and right weight plates coupled to the dumbbell. In addition, the claim recites that an electric motor is "operatively connected to the selector" and physically moves the selector into the different adjustment positions corresponding to the desired weight selected by a user. '771 patent col. 12 ll. 4-5. Claim 1 is thus "limited to a specific implementation of a technological improvement to" selectorized dumbbells. *Chamberlain Grp., Inc. v. Techtronic Indus. Co., 935 F.3d 1341, 1347 (Fed. Cir. 2019)*. We hold that the limitations in this claim provide enough specificity and structure to satisfy § 101.

iFit argues that "the claimed invention is defined only in terms of **[**10]** its functions and the desired result . . . without specifying *how* the system actually improves the technology of selectorized dumbbells." Appellee's Br. 19-20. But, as just described, claim 1 does so specify—it requires an electric motor, coupled to a selector movable into different adjustment positions, and energizing the motor to physically move the selector via the coupling between the motor and the selector. In the context of this rather simple mechanical invention, we conclude that claim 1 goes beyond claiming the "broad concept" of automating a known technique and provides a sufficiently "specific manner of performing" automated weight stacking. *See Chamberlain, 935 F.3d at 1347-48*; *cf. Intell. Ventures I LLC v. Symantec Corp., 838 F.3d 1307, 1316 (Fed. Cir. 2016)* ("[W]hen a claim directed to an abstract idea contains *no restriction* on how the result is accomplished and the mechanism is not described, . . . then the claim is not patent-eligible." (cleaned up) (emphasis added)).

We disagree with the district court's reasoning that the '771 patent is analogous to the patent at issue in *University of Florida Research Foundation, Inc. v. General Electric Co., 916 F.3d 1363 (Fed. Cir. 2019)*. *PowerBlock, 2023 U.S. Dist. LEXIS 176101, 2023 WL 6377781, at *6*. The patent at issue there, involving "a method and system for 'integrat[ing] physiologic data from at least one bedside machine,'" sought to "automate 'pen and paper methodologies' to conserve human resources and **[**11]** minimize errors" and was "a quintessential 'do it on a computer' patent." *Univ. of Fla., 916 F.3d at 1366-67* (alteration in original) (citations omitted). Claim 1 of the '771 patent is different. It is directed to an eligible mechanical invention—an improved "machine," i.e., "a concrete thing, consisting of parts, or of certain devices and combination of devices." *SiRF Tech., Inc. v. Int'l Trade Comm'n, 601 F.3d 1319, 1332 (Fed. Cir. 2010)*; *see* 35 U.S.C. § 101.

Claim 1 at issue here is also unlike the claims at issue in *Chamberlain*, relied on by iFit at oral argument. Oral Arg. at 22:16-23:13, https://oralarguments.cafc.uscourts.gov/default.aspx?fl=24-1177_05072025.mp3 . In *Chamberlain*, the specification described a system for wirelessly controlling a moveable barrier, such as a garage door. The claims recited a moveable barrier operator with a controller, an interface, and a wireless transmitter that sends status information. The claims did not recite the moveable barrier. We concluded that the asserted claims were "directed to wirelessly communicating status information about a system." *Chamberlain, 935 F.3d at 1346-47* ("[T]he broad concept of communicating information wirelessly, without more, is an abstract **[*1373]** idea."). We explained that the claims in *Chamberlain* were "not limited to a specific implementation of a technological improvement to

communication systems," instead, "they **[**12]** simply recite[d] a system that wirelessly communicates status information" instead of using physical signal paths. *Id. at 1347* ("[W]ireless communication . . . was already a basic, conventional form of communication."). Claim 1 of the '771 patent here is distinguishable. Claim 1 recites elements of a mechanical device including an electric motor that physically moves a selector that is both connected to the motor and configured to couple selected numbers of left weight plates to the left end of a dumbbell handle and selected numbers of right weight plates to the right end of the dumbbell handle to automatically adjust dumbbell weight. Here, claim 1 passes muster at *Alice* step one, as it is sufficiently focused on a specific mechanical improvement to selectorized dumbbell weight stacking.

iFit urges us to ignore the claim limitations involving conventional selectorized dumbbell components when assessing whether claim 1 is directed to a specific structure or an abstract idea, arguing that "[r]epeating elements of prior art selectorized dumbbells does not imbue claim 1 with any specific means or method." Appellee's Br. 27; *see also* Oral Arg. at 16:19-16:33 (iFit's counsel arguing that "the structure that is identified **[**13]** and recited in claim 1 is nothing more than conventional components that have existed" in the selectorized dumbbell prior art). But the *Alice* step one inquiry involves consideration of the claims "*in their entirety* to ascertain whether their character *as a whole* is directed to excluded subject matter." *CardioNet, 955 F.3d at 1367* (emphases added) (quoting *McRO, 837 F.3d at 1312*). Indeed, we have "cautioned that courts 'must be careful to avoid oversimplifying the claims' by looking at them generally and failing to account for the specific requirements of the claims." *McRO, 837 F.3d at 1313* (quoting *In re TLI Commc'ns LLC Pat. Litig., 823 F.3d 607, 611 (Fed. Cir. 2016)*); *see Alice, 573 U.S. at 217* ("At some level, 'all inventions . . . embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.'" (omission in original) (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc., 566 U.S. 66, 71, 132 S. Ct. 1289, 182 L. Ed. 2d 321 (2012)*)). We decline iFit's invitation to read out or ignore limitations in claim 1 here merely because they can be found in the prior art. *See Diamond v. Diehr, 450 U.S. 175, 188, 101 S. Ct. 1048, 67 L. Ed. 2d 155 (1981)* ("[I]t [is] inappropriate to dissect the claims into old and new elements and then to ignore the presence of the old elements in the [§ 101] analysis.").[3] Considering claim 1 in its entirety, we conclude that it is directed to a sufficiently specific mechanical invention that, as a whole, advantageously automates selectorized dumbbell weight stacking. *See* '771 patent col. **[**14]** 1 ll. 38-67, col. 11 ll. 5-37. Because we conclude under *Alice* step one that claim 1 of the '771 patent is not directed to an abstract idea, we do not reach *Alice* step two. Claim 1 is patent **[*1374]** eligible under § 101. *See CardioNet, 955 F.3d at 1371*.

We reach the same conclusion for claims 2-18 and 20 because, "[f]or purposes of validity, the parties did not argue the[se] claims separately, so they rise or fall together." *Vanda Pharms. Inc. v. W.-Ward Pharms. Int'l Ltd., 887 F.3d 1117, 1134 n.9 (Fed. Cir. 2018)*; *see also Endo Pharms. Inc. v. Teva Pharms. USA, Inc., 919 F.3d 1347, 1353 n.3 (Fed. Cir. 2019)*.

CONCLUSION

For the foregoing reasons, we reverse the district court's determination that claims 1-18 and 20 of the '771 patent recite patent-ineligible subject matter and remand for further proceedings.

REVERSED AND REMANDED

COSTS

Costs to Appellant.

End of Document

[3] We caution parties and tribunals not to conflate the separate novelty and obviousness inquiries under 35 U.S.C. §§ 102 and 103, respectively, with the step one inquiry under § 101. *See Parker v. Flook, 437 U.S. 584, 593, 98 S. Ct. 2522, 57 L. Ed. 2d 451 (1978)* ("The obligation to determine what type of discovery is sought to be patented must precede the determination of whether that discovery is, in fact, new or obvious."); *see also Mayo, 566 U.S. at 90* ("[T]o shift the [§ 101] patent-eligibility inquiry entirely to . . . later sections [like § 102] risks creating significantly greater legal uncertainty, while assuming that those sections can do work that they are not equipped to do.").

Recentive Analytics, Inc. v. Fox Corp.

United States Court of Appeals for the Federal Circuit

April 18, 2025, Decided

2023-2437

Reporter
134 F.4th 1205 *; 2025 U.S. App. LEXIS 9195 **; 2025 LX 62526; 2025 U.S.P.Q.2D (BNA) 628; 2025 WL 1142021

RECENTIVE ANALYTICS, INC., Plaintiff-Appellant v. FOX CORP., FOX BROADCASTING COMPANY, LLC, FOX SPORTS PRODUCTIONS, LLC, Defendants-Appellees

Subsequent History: Petition for certiorari filed at, 10/21/2025

Prior History: [1]** Appeal from the United States District Court for the District of Delaware in No. 1:22-cv-01545-GBW, Judge Gregory Brian Williams.

Recentive Analytics, Inc. v. Fox Corp., 692 F. Supp. 3d 438, 2023 U.S. Dist. LEXIS 166196 (D. Del., Sept. 19, 2023)

Disposition: AFFIRMED.

Core Terms

patent, machine, network, map, train, eligibility, abstract idea, technology, inventive, ineligible, transform, district court, optimize, generic, input, patent-eligible, broadcast, target, update, iterative, real-time, subject matter, patent-ineligible, dynamically, algorithm, parameter, speed

Case Summary

Overview
Key Legal Holdings

- Claims that simply apply established methods of machine learning to a new data environment, without disclosing improvements to the machine learning models themselves, are ineligible for patent protection under *35 U.S.C. § 101*.
- Iterative training of machine learning models and dynamic adjustments based on real-time data are inherent to machine learning and do not represent a technological improvement.
- Applying an "already available technology, with its already available basic functions" to a new field or technological environment does not confer patent eligibility under *§ 101*.

Material Facts

- Recentive Analytics, Inc. owns four patents directed to the use of machine learning for generating network maps and schedules for television broadcasts and live events.
- Recentive sued Fox Corp., Fox Broadcasting Company, LLC, and Fox Sports Productions, LLC for patent infringement.
- The district court dismissed the case, concluding that the patents were ineligible subject matter under *35 U.S.C. § 101*.
- Recentive appealed the dismissal to the Federal Circuit.

Controlling Law

- The controlling law is *35 U.S.C. § 101*, which defines patent-eligible subject matter, and the two-step test set forth in *Alice Corp. v. CLS Bank International, 573 U.S. 208 (2014)*, for determining patent eligibility under *§ 101*.

Court Rationale

The Federal Circuit held that Recentive's patents are directed to the abstract idea of using a generic machine learning technique in a particular environment, with no

inventive concept. The court reasoned that iterative training and dynamic adjustments are inherent to machine learning and do not represent a technological improvement. Applying an existing technology to a new data environment or field does not confer patent eligibility under § 101.

Outcome
Procedural Outcome

The Federal Circuit affirmed the district court's dismissal of Recentive's complaint for failure to claim patent-eligible subject matter under 35 U.S.C. § 101.

LexisNexis® Headnotes

Civil Procedure > Appeals > Standards of Review > De Novo Review

Patent Law > Jurisdiction & Review > Standards of Review > De Novo Review

Civil Procedure > ... > Defenses, Demurrers & Objections > Motions to Dismiss > Failure to State Claim

Civil Procedure > Dismissal > Involuntary Dismissals > Failure to State Claims

HN1 **Standards of Review, De Novo Review**

A district court's dismissal of a complaint for failure to state a claim and determination of patent eligibility under 35 U.S.C.S. 101 are reviewed de novo.

Patent Law > ... > Utility Patents > Process Patents > New Uses

HN2 **Process Patents, New Uses**

An invention is patent eligible if it claims a new and useful process, machine, manufacture, or composition of matter under 35 U.S.C.S. 101. The Supreme Court has interpreted this language to exclude laws of nature, natural phenomena, and abstract ideas from patent eligibility.

Patent Law > Invention Date & Priority > Reduction to Practice

HN3 **Invention Date & Priority, Reduction to Practice**

Courts perform a two-step analysis under Alice to determine patent eligibility under 35 U.S.C.S. 101. First, courts determine whether the claims at issue are directed to a patent-ineligible concept. If so, courts assess the elements of each claim individually and as an ordered combination to determine whether they possess an inventive concept sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the ineligible concept itself.

Patent Law > ... > Utility Patents > Process Patents > Computer Software & Mental Steps

HN4 **Process Patents, Computer Software & Mental Steps**

Under the first step of the Alice inquiry to determine patent eligibility under 35 U.S.C.S. 101, the court looks at the focus of the claimed advance over the prior art to determine if the claim's character as a whole is directed to excluded subject matter. In the context of software patents (which includes machine learning patents), the step-one inquiry determines "whether the claims focus on the specific asserted improvement in computer capabilities or, instead, on a process that qualifies as an abstract idea for which computers are invoked merely as a tool.

Patent Law > ... > Utility Patents > Process Patents > Computer Software & Mental Steps

HN5 **Process Patents, Computer Software & Mental Steps**

Generic steps of implementing and processing calculations with a regular computer do not change the character of a claim from an abstract idea into a practical application.

Patent Law > ... > Utility Patents > Process Patents > Computer Software & Mental Steps

HN6 **Process Patents, Computer Software & Mental Steps**

The patent system represents a carefully crafted bargain that encourages both the creation and the public disclosure of new and useful advances in technology, in return for an exclusive monopoly for a limited period of time.

Patent Law > ... > Specifications > Definiteness > Precision Standards

HN7 **Definiteness, Precision Standards**

An abstract idea does not become nonabstract by limiting the invention to a particular field of use or technological environment.

Patent Law > ... > Utility Patents > Process Patents > Computer Software & Mental Steps

HN8 **Process Patents, Computer Software & Mental Steps**

The application of existing technology to a novel database does not create patent eligibility. Courts have treated collecting information, including when limited to particular content, as within the realm of abstract ideas. Patents may be directed to abstract ideas where they disclose the use of an already available technology, with its already available basic functions, to use as tools in executing the claimed process.

Patent Law > ... > Defenses > Patent Invalidity > Grounds

HN9 **Patent Invalidity, Grounds**

In the context of computer-assisted methods, claims are not made patent eligible under *35 U.S.C.S. 101* simply because they speed up human activity.

Patent Law > ... > Utility Patents > Process Patents > Computer Software & Mental Steps

HN10 **Process Patents, Computer Software & Mental Steps**

At Alice step two of the inquiry to determine patent eligibility under *35 U.S.C.S. 101*, courts consider the elements of the claim both individually and as an ordered combination to determine whether the additional elements transform the nature of the claim into a patent-eligible application. Transforming the nature of a claim into a patent-eligible application requires more than simply stating the abstract idea while adding the words apply it. The claim must include an inventive concept sufficient to transform the claimed abstract idea into a patent-eligible application. The court must determine whether the claims include an element or combination of elements that transforms the claims into something significantly more than a claim on the patent-ineligible concept itself.

Civil Procedure > Judicial Officers > Judges > Discretionary Powers

Civil Procedure > ... > Pleadings > Amendment of Pleadings > Leave of Court

HN11 **Judges, Discretionary Powers**

A district court's decision to grant or deny leave to amend is committed to the sound discretion of the district court.

Patent Law > Infringement Actions > Claim Interpretation > Construction Preferences

HN12 **Claim Interpretation, Construction Preferences**

Dismissal is appropriate where a plaintiff has failed to identify claim terms requiring a construction that could affect the patent-ineligibility analysis. A patentee must propose a specific claim construction or identify specific facts that need development and explain why those circumstances must be resolved before the scope of the claims can be understood for *35 U.S.C.S. 101* purposes.

Patent Law > ... > Utility Patents > Process Patents > New Uses

HN13 **Process Patents, New Uses**

Patents that 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, are patent ineligible

under 35 U.S.C.S. 101.

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Judges: Before DYK, and PROST, Circuit Judges, and GOLDBERG, Chief District Judge.[1]

Opinion by: DYK

Opinion

[*1207] DYK, CIRCUIT JUDGE.

This case presents the question of patent eligibility of four patents directed to the use of machine learning. The patents claim the use of machine learning for the **[*1208]** generation of network maps and schedules for television broadcasts and live events.

Appellant Recentive Analytics, Inc. ("Recentive"), the owner of the patents, sued appellees Fox Corp., Fox Broadcasting Company, LLC, and Fox Sports Productions, LLC (collectively, "Fox") for infringement. The district court dismissed, concluding that the patents were directed to ineligible subject matter under 35 U.S.C. § 101. We affirm because the patents are directed to the **[**2]** abstract idea of using a generic machine learning technique in a particular environment, with no inventive concept.

BACKGROUND

I

Recentive is the owner of U.S. Patent Nos. 10,911,811 ("'811 patent"), 10,958,957 ("'957 patent"), 11,386,367 ("'367 patent"), and 11,537,960 ("'960 patent"). The patents purport to solve problems confronting the entertainment industry and television broadcasters: how to optimize the scheduling of live events and how to optimize "network maps," which determine the programs or content displayed by a broadcaster's channels within certain geographic markets at particular times. The patents fall into two groups that the parties refer to as the "Machine Learning Training" patents and the "Network Map" patents.

A. The Machine Learning Training Patents

The '367 and '960 patents are the "Machine Learning Training" patents. Both are titled "Systems and Methods for Determining Event Schedules." They share a specification and concern the scheduling of live events. Claim 1 of the '367 patent is representative of the Machine Learning Training patents and recites a method containing: (i) a collecting step (receiving event parameters and target features); (ii) an iterative training step for the machine learning model (identifying relationships **[**3]** within the data); (iii) an output step (generating an optimized schedule); and (iv) an updating step (detecting changes to the data inputs and iteratively generating new, further optimized schedules).[2]

[1] Honorable Mitchell S. Goldberg, Chief District Judge, United States District Court for the Eastern District of Pennsylvania, sitting by designation.

[2] Claim 1 of the '367 patent recites:

A computer-implemented method of dynamically generating an event schedule, the method comprising:

receiving one or more event parameters for series of live events, wherein the one or more event parameters comprise at least one of venue availability, venue locations, proposed ticket prices, performer fees, venue fees, scheduled performances by one or more performers, or any combination thereof;

receiving one or more event target features associated with the series of live events, wherein the one or more event target features comprise at least one of event attendance, event profit, event revenue, event expenses, or any combination thereof;

providing the one or more event parameters and the one or more target features to a machine learning (ML) model, wherein the ML model is at least one of a neural network ML model and a support vector ML model;

iteratively training the ML model to identify relationships between different event parameters and the one or more event target features using historical data corresponding to one or more previous series of live events, wherein such iterative training **[**4]** improves the accuracy of the ML model;

receiving, from a user, one or more user-specific event parameters for a future series of live events to be held in a plurality of geographic regions;

receiving, from the user, one or more user-specific event weights representing one or more prioritized event target

[*1209] The specification teaches that the machine learning model may be "trained using a set **[**5]** of training data," which can include "historical data from previous live events or series of live events." *Id.* col. 6 ll. 5-8. That historical data may include prior event dates, venue locations, and ticket sales. *Id.* col. 6 ll. 6-11. In operating the machine learning model, users enter "target features," which are a user's selected results, such as maximizing event attendance, revenue, or ticket sales. *Id.* col. 6 ll. 12-15. The machine learning model may "be trained to recognize how to optimize, maximize, or minimize one or more of the target features based on a given set of input parameters." *Id.* Eventually, the machine learning model will "generate the optimized schedule[] and provide the schedule . . . as output." *Id.* col. 6 ll. 16-17.

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." *Id.* col. 6 ll. 1-5. The schedules are generated "dynamically, in response to real-time changes in data," allowing "input parameters and target features **[**6]** [to] be processed and considered more efficiently and accurately[] compared to prior approaches." *Id.* col. 9 ll. 20-25.

B. The Network Map Patents

The '811 and '957 patents are the Network Map patents. Both are titled "Systems and Methods for Automatically and Dynamically Generating a Network Map." They share a specification and concern the creation of network maps for broadcasters. Claim 1 of the '811 patent is representative of the Network Map patents and recites a method containing: (i) a collecting step (receiving current broadcasting schedules); (ii) an analyzing step (creating a network map); (iii) an updating step (incorporating real-time changes to the data inputs); and (iv) a using step (determining program broadcasts using the optimized network map).[3]

[*1210] The Network Map patents use training data in conjunction with a machine learning model to generate optimized **[**8]** network maps. The training data may include "weather data, news data, and/or gambling data," but is not limited to such categories. *Id.* col. 3 ll. 26-30. In operating the machine learning model, users may input target features to achieve a selected result. For example, in the context of National Football League broadcasts, users may select a target feature that

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features associated with the future series of live events;

providing the one or more user-specific event parameters and the one or more user-specific event weights to the trained ML model;

generating, via the trained ML model, a schedule for the future series of live events that is optimized relative to the one or more prioritized event target features;

detecting a real-time change to the one or more user-specific event parameters;

providing the real-time change to the trained ML model to improve the accuracy of the trained ML model; and

updating, via the trained ML model, the schedule for the future series of live events such that the schedule remains optimized relative to the one or more prioritized event target features in view of the real-time change to the one or more user-specific event parameters.

'367 patent, col. 14 ll. 2-49.

[3] Claim 1 of the '811 patent recites:

A computer-implemented method for dynamically generating a network map, the method comprising:

receiving a schedule for a first plurality of live events scheduled to start at a first time and a second plurality of live events scheduled to start at a second time; generating, based on the schedule, a network map mapping the first plurality of live events and the second plurality of live events to a plurality of television stations for a plurality of cities,

wherein each station from the plurality of stations corresponds to a respective city from the plurality **[**7]** of cities,

wherein the network map identifies for each station (i) a first live event from the first plurality of live events that will be displayed at the first time, and (ii) a second live event from the second plurality of live events that will be displayed at the second time, and

wherein generating the network map comprises using a machine learning technique to optimize an overall television rating across the first plurality of live events and the second plurality of live events;

automatically updating the network map on demand and in real time based on a change to at least one of (i) the schedule and (ii) underlying criteria;

wherein updating the network map comprises updating the mapping of the first plurality of live events and the second plurality of live events to the plurality of television stations; and

using the network map to determine for each station (i) the first live event from the first plurality of live events that will be displayed at the first time and (ii) the second live event from the second plurality of live events that will be displayed at the second time.

'811 patent, col. 9 ll. 66-col. 10, ll. 32.

maximizes "overall ratings for the NFL across all games, ratings for the NFL with a particular affiliate (CBS or FOX), ratings for the NFL in a particular market, with a particular audience, or at a particular time." *Id.* col. 3 ll. 12-15. The specification clarifies that the disclosed method uses generic computing equipment in conjunction with "any suitable machine learning technique." *Id.* col. 3 ll. 22-26.

II

On November 29, 2022, Recentive sued Fox, alleging infringement of the four patents. Fox moved to dismiss for failure to state a claim on the ground that the patents are ineligible under § 101.

In opposing Fox's motion, Recentive acknowledged that "the concept of preparing network maps[] [had] existed for a long time," and that prior to computers, "networks were preparing these network maps with human beings." Transcript of Motion **[**9]** to Dismiss Hearing at 28:19-29:06, ***Recentive Analytics, Inc. v. Fox Corp.*, 692 F. Supp. 3d 438 (D. Del. 2023) (No. 22-cv-1545), ECF No. 39 ("Transcript")**. Recentive also recognized that "the patents do not claim the machine learning technique itself," *id.* at 26:14-15, but instead "claim[] the application of the machine learning technique to the specific context[s]" of event scheduling and network map creation, *id.* at 26:15-21.

Recentive asserted that its patents claim eligible subject matter because they involve "the unique application of machine learning to generate customized algorithms, based on training the machine learning model, that can then be used to automatically create . . . event schedules that are updated in real-time." Plaintiff's Opposition to Defendants' Motion to Dismiss at 2, ***Recentive Analytics, Inc. v. Fox Corp.*, 692 F. Supp. 3d 438 (D. Del. 2023)** (No. 22-cv-1545), ECF No. 20 ("Opposition Br."). According to Recentive, this includes using iterative training for its machine learning model on "different event parameters and . . . event target features" to "identify relationships" within the data. *Id.* at 9 (alteration in original) (quoting '367 patent, col. 14 ll. 21-23).

Recentive acknowledged that "the way machine learning works is the inputs are defined, the model is trained[;] and then the algorithm is actually updated and improved over time based on the input," **[**10]** Transcript at 26:21-24; that "[t]he process of training the machine learning model[] . . . is required for any machine learning model," Opposition Br. at 16; and that "'using a machine learning technique[]' . . . necessarily includes [an] 'iterative[] training' step," *id.* at 9 (quoting '811 patent, **[*1211]** col. 3 ll. 26-28). Recentive characterized its patents as introducing "the application of machine learning models to the unsophisticated, and equally niche, prior art field of generating network maps for broadcasting live events and live event schedules." *Id.* at 1.

The district court granted Fox's motion to dismiss, concluding that the patents were ineligible under the two-step inquiry of *Alice Corporation v. CLS Bank International, 573 U.S. 208, 134 S. Ct. 2347, 189 L. Ed. 2d 296 (2014)*. The court first found that the asserted claims were "directed to the abstract ideas of producing network maps and event schedules, respectively, using known generic mathematical techniques." *Recentive, 692 F. Supp. 3d at 451*. The court then found at step two of *Alice* that the patents' claims were not directed to an "inventive concept" that would "amount[] to significantly more than a patent upon the [ineligible concept] itself," *id. at 456* (second alteration in original) (quoting *Alice, 573 U.S. at 217-18*), because the machine learning limitations were no more than "broad, functionally **[**11]** described, well-known techniques" and claimed "only generic and conventional computing devices," *id. at 457* (footnote omitted). Finally, the district court denied Recentive's request for leave to amend. *See id.* In the district court's view, any amendment to Recentive's complaint would have been futile. *Id.*

Recentive appealed. We have jurisdiction pursuant to *28 U.S.C. § 1295(a)(1)*.

DISCUSSION

We review challenges to a district court's dismissal of a complaint for failure to state a claim de novo. *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n, 776 F.3d 1343, 1346 (Fed. Cir. 2014)*; *Sands v. McCormick, 502 F.3d 263, 267 (3d Cir. 2007)*. We likewise review a district court's determination of patent eligibility under § 101 de novo. *Content Extraction, 776 F.3d at 1346*; *Dealertrack, Inc. v. Huber, 674 F.3d 1315, 1333 (Fed. Cir. 2012)*.

An invention is patent eligible if it claims a "new and useful process, machine, manufacture, or composition of matter." *35 U.S.C. § 101*. The Supreme Court has interpreted this language to exclude "[l]aws of nature, natural phenomena, and abstract ideas" from patent eligibility. *Alice, 573 U.S. at 216*; *Mayo Collab. Servs. v.*

Prometheus Lab'ys, Inc., 566 U.S. 66, 70, 132 S. Ct. 1289, 182 L. Ed. 2d 321 (2012).

Under *Alice*, courts perform a two-step analysis to determine patent eligibility under *§ 101*. "First, we determine whether the claims at issue are directed to one of those patent-ineligible concepts." *Alice, 573 U.S. at 217*. If the claims are directed to a patent-ineligible concept, we assess the "elements of each claim both individually and 'as an ordered combination'" to determine whether they possess **[**12]** an "inventive concept" 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* (alteration in original) (quoting *Mayo, 566 U.S. at 72*).

This case presents 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. We hold that they are not.

I

Under the first step of the *Alice* inquiry, "we 'look at the focus of the claimed advance over the prior art to determine **[*1212]** if the claim's character as a whole is directed to excluded subject matter.'" *Koninklijke KPN N.V. v. Gemalto M2M GmbH, 942 F.3d 1143, 1149 (Fed. Cir. 2019)* (quoting *Affinity Labs of Tex., LLC v. DIRECTV, LLC, 838 F.3d 1253, 1257 (Fed. Cir. 2016)*). In the context of software patents (which includes machine learning patents), the step-one inquiry determines "whether the claims focus on 'the specific asserted improvement in computer capabilities . . . or, instead, on a process that qualifies as an abstract idea for which computers are invoked merely as a tool.'" *Id.* (alteration in original) (quoting *Finjan, Inc. v. Blue Coat Sys., Inc., 879 F.3d 1299, 1303 (Fed. Cir. 2018)*).

Considering the focus of the disputed claims, *Alice, 573 U.S. at 217*, it is clear that they are directed to ineligible, abstract subject matter. Recentive has repeatedly conceded that it is not claiming machine learning itself. *See* Appellant's Br. 45; **[**13]** Transcript at 26:14-15. Both sets of patents rely on the use of generic machine learning technology in carrying out the claimed methods for generating event schedules and network maps. *See, e.g.*, '367 patent, col. 6 ll. 1-5, col. 11-12; '811 patent, col. 3, l. 23, col. 5 l. 4. The machine learning technology described in the patents is conventional, as the patents' specifications demonstrate. *See, e.g.*, '367 patent, col. 6 ll. 1-5 (requiring "any suitable machine learning technology . . . 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"); '811 patent, col. 3 l. 23 (requiring the application of "any suitable machine learning technique.").[4]

The requirements that the machine learning model be "iteratively trained" or dynamically adjusted in the Machine Learning Training patents do not represent a technological improvement. Recentive's own representations about the nature of machine learning vitiate this argument: Iterative training using selected training material and dynamic adjustments based on real-time changes are incident to the very nature of machine learning. *See, e.g.*, Opposition Br. **[**14]** 9 ("[U]sing a machine learning technique[] . . . necessarily includes [an] iterative[] training step . . . ." (internal quotation marks and citation omitted)); Transcript at 26:21-24 ("[T]he way machine learning works is the inputs are defined, the model is trained, and then the algorithm is actually updated and improved over time based on the input").

Recentive argues in its briefs that its application of machine learning is not generic because "Recentive worked out how to make the algorithms function dynamically, so the maps and schedules are automatically customizable and updated with real-time data," Appellant's Reply Br. 2, and because "Recentive's methods unearth **[*1213]** 'useful patterns' that had previously been buried in the data, unrecognizable to humans," *id.* (internal citation omitted). But Recentive also admits that the patents do not claim a specific method for "improving the mathematical algorithm or making machine learning better." Oral Arg. at 4:40-4:44.

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[4] The patents additionally employ only generic computing machines and processors. *See, e.g.*, '367 patent, col. 11 ll. 50-62 ("The processes and logic flows described in this specification can be performed by one or more programmable processors executing one or more computer programs to perform actions by operating on input data and generating output . . . . Processors suitable for the execution of a computer program include . . . both general and special purpose microprocessors, and any one or more processors of any kind of digital computer."); '811 patent, col. 5 ll. 4-6 ("FIG. 4 shows an example of a generic computing device 450, which may be used with the techniques described in this disclosure"). As we have explained, "generic steps of implementing and processing calculations with a regular computer do not change the character of [the claim] from an abstract idea into a practical application." *In re Bd. of Trs. of Leland Stanford Junior Univ., 991 F.3d 1245, 1250 (Fed. Cir. 2021)*.

Even if Recentive had not conceded the lack of a technological improvement, neither the claims nor the specifications describe how such an improvement was accomplished. That is, the claims do not delineate steps through which **[**15]** the machine learning technology achieves an improvement. *See, e.g.,* IBM v. Zillow Grp., Inc., 50 F.4th 1371, 1381 (Fed. Cir. 2022) (holding abstract a claim that "d[id] not sufficiently describe how to achieve [its stated] results in a non-abstract way," because "[s]uch functional claim language, without more, is insufficient for patentability under our law." (quoting Two-Way Media Ltd v. Comcast Cable Commc'ns, LLC, 874 F.3d 1329, 1337 (Fed. Cir. 2017))); *see also* Intell. Ventures I LLC v. Capital One Fin. Corp., 850 F.3d 1332, 1342 (Fed. Cir. 2017) (similar); Elec. Power Grp., LLC v. Alstom S.A., 830 F.3d 1350, 1356 (Fed. Cir. 2016) (similar). "[T]he patent system represents a carefully crafted bargain that encourages both the creation and the public disclosure of new and useful advances in technology, in return for an exclusive monopoly for a limited period of time." Pfaff v. Wells Elecs., 525 U.S. 55, 63, 119 S. Ct. 304, 142 L. Ed. 2d 261 (1998); Sanho Corp. v. Kaijet Tech. Int'l Ltd., 108 F.4th 1376, 1382 (Fed. Cir. 2024). 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. In this respect, the patents' claims are materially different from those in McRO, Inc. v. Bandai Namco Games America Inc., 837 F.3d 1299 (Fed. Cir. 2016), and Koninklijke, the cases on which Recentive relies.

Instead of disclosing "a specific implementation of a solution to a problem in the software arts," Enfish, LLC v. Microsoft Corp., 822 F.3d 1327, 1339 (Fed. Cir. 2016), or "a specific means or method that solves a problem in an existing technological process," Koninklijke, 942 F.3d at 1150, the only thing the claims disclose about the use of machine learning is that machine learning is used in a new environment. This new environment **[**16]** is event scheduling and the creation of network maps.

As Recentive acknowledges, before the introduction of machine learning, event planners looked to what the Machine Learning Training patents describe as "event parameters" such as prior ticket sales, weather forecasts, and other data to determine when and where to schedule a particular event or series of events. *See* Appellant's Br. 4 (describing prior methods as "entirely manual, static[,] and incapable of responding to changing conditions" (quoting '811 patent, col. 1 l. 25)). The patents recognize this. *See, e.g.*, '367 patent, col. 1 ll. 13-26. The same goes for the creation of network maps, which have been "manual[ly]" created by humans to determine "which content will be displayed on which channel at a certain time." '811 patent, col. 1 ll. 16-17, 25.

We see no merit to Recentive's argument that its patents are eligible because they apply machine learning to this new field of use. We have long recognized that "[a]n abstract idea does not become nonabstract by limiting the invention to a particular field of use or technological environment." Intell. Ventures I LLC v. Capital One Bank (USA), 792 F.3d 1363, 1366 (Fed. Cir. 2015); *see also* Alice, 573 U.S. at 222; Parker v. Flook, 437 U.S. 584, 593, 98 S. Ct. 2522, 57 L. Ed. 2d 451 (1978); Stanford, ***[*1214]*** 989 F.3d at 1373 (rejecting argument that a claim was not abstract where patentee contended "the specific application of the **[**17]** steps [was] novel and enable[d] scientists to ascertain more haplotype information than was previously possible").

We have also held the application of existing technology to a novel database does not create patent eligibility. *See, e.g.*, SAP Am., Inc. v. InvestPic, LLC, 898 F.3d 1161, 1168 (Fed. Cir. 2018); Elec. Power, 830 F.3d at 1353 ("[W]e have treated collecting information, including when limited to particular content (which does not change its character as information), as within the realm of abstract ideas." (citing Internet Pats. Corp. v. Active Network, Inc., 790 F.3d 1343, 1349 (Fed. Cir. 2015); OIP Techs., Inc. v. Amazon.com, Inc., 788 F.3d 1359, 1363 (Fed. Cir. 2015); Content Extraction, 776 F.3d at 1347; Digitech Image Techs., LLC v. Elecs. for Imaging, Inc., 758 F.3d 1344, 1351 (Fed. Cir. 2014); CyberSource Corp. v. Retail Decisions, Inc., 654 F.3d 1366, 1370 (Fed. Cir. 2011))). Stated differently, patents may be directed to abstract ideas where they disclose the use of an "already available [technology], with [its] already available basic functions, to use as [a] tool[] in executing the claimed process." SAP Am., 898 F.3d at 1169-70. We think those cases are equally applicable in the machine learning context. Recentive's argument that its patents are eligible simply because they introduce machine learning techniques to the fields of event planning and creating network maps directly conflicts with our § 101 jurisprudence.

Finally, the 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. **[**18]** 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. *See, e.g.*, Content Extraction, 776 F.3d at 1347; DealerTrack, 674 F.3d at 1333. Whether the issue is raised at step one or step two, the increased speed and efficiency resulting from use of computers (with no improved computer techniques) do not themselves create eligibility. *See, e.g.*, Trinity Info Media, LLC v. Covalent, Inc., 72 F.4th 1355, 1363 (Fed. Cir. 2023) (rejecting argument that "humans could not mentally engage in the 'same claimed process' because they could not perform 'nanosecond comparisons' and aggregate 'result values with huge numbers of polls and members'") (internal citation omitted); Customedia Techs., LLC v. Dish Network Corp., 951 F.3d 1359, 1365 (Fed. Cir. 2020) (holding claims abstract where "[t]he only improvements identified in the specification are generic speed and efficiency improvements inherent in applying the use of a computer to any task"); *compare* McRo, 837 F.3d at 1314-16 (finding eligibility of claims to use specific computer techniques different from those humans use on their own to produce natural-seeming lip motion for speech).

The district court correctly concluded that the Machine Learning Training and Network Map patents are directed to abstract ideas at step one of Alice.

II

At Alice step two, we "consider the elements of [the] claim **[**19]** both individually and 'as an ordered combination' to determine whether the additional elements 'transform the nature of the claim' into a patent-eligible application." 573 U.S. at 217 (quoting Mayo, 566 U.S. at 79). Transforming the nature of a claim "into a patent-eligible **[*1215]** application requires more than simply stating the abstract idea while adding the words 'apply it.'" Trinity, 72 F.4th at 1365 (quoting Alice, 573 U.S. at 221); *see also* SAP Am., 898 F.3d at 1167. "[T]he claim must include 'an inventive concept sufficient to transform the claimed abstract idea into a patent-eligible application.'" Trinity, 72 F.4th at 1365 (quoting Alice, 573 U.S. at 221); Broadband iTV, Inc. v. Amazon.Com, Inc., 113 F.4th 1359, 1370 (Fed. Cir. 2024) ("[W]e must determine whether the claims include 'an element or combination of elements' that transforms the claims into something 'significantly more' than a claim on the patent-ineligible concept itself." (quoting Alice, 573 U.S. at 217-18)).

Recentive claims that the inventive concept in its patents is "using machine learning to dynamically generate optimized maps and schedules based on real-time data and update them based on changing conditions." Appellant's Br. 44. As the district court correctly recognized, *see* Recentive, 692 F. Supp. 3d at 456, this is no more than claiming the abstract idea itself. Such a position plainly fails to identify anything in the claims that would "'transform' the claimed abstract idea into a patent-eligible **[**20]** application." Alice, 573 U.S. at 221 (quoting Mayo, 566 U.S. at 71).

In short, we perceive nothing in the claims, whether considered individually or in their ordered combination, that would transform the Machine Learning Training and Network Map patents into something "significantly more" than the abstract idea of generating event schedules and network maps through the application of machine learning. *See* SAP Am., 898 F.3d at 1169-70; Broadband iTV, 113 F.4th at 1372. Recentive has also failed to identify any allegation in its complaint that would suffice to plausibly allege an inventive concept to defeat Fox's motion to dismiss. Trinity, 72 F.4th at 1365.

The district court did not err in concluding that Recentive's claims fail to satisfy step two of the Alice inquiry.

III

We additionally reject Recentive's argument that the district court should have granted it leave to amend, a determination that is committed to the sound discretion of the district court. *See* Celgene Corp. v. Mylan Pharms., Inc., 17 F.4th 1111, 1130 (Fed. Cir. 2021); In re Allergan ERISA Litig., 975 F.3d 348, 356 n.13 (3d Cir. 2020). Here, the court determined further amendment would be futile. *See* Recentive, 692 F. Supp. 3d at 457. Recentive failed to propose any amendments or identify any factual issues that would alter the § 101 analysis. In light of this failure and our holding with respect to the ineligibility of Recentive's patents, we discern no error in the district court's conclusion.[5]

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[5] Recentive additionally suggests that the district court erred by resolving claim-construction disputes at the pleading stage. We are not convinced. The district court correctly recognized that "[d]ismissal is appropriate" where, as here, "a plaintiff has failed to identify claim terms requiring a construction that could affect the patent-ineligibility analysis." Recentive, 692 F. Supp. 3d at 448; Trinity, 72 F.4th at 1360-61 ("[A] patentee must propose a specific claim construction or identify specific facts that need development and explain why those circumstances must be resolved before the scope of the claims can be understood for § 101 purposes.").

CONCLUSION

Machine learning **[**21]** is a burgeoning and increasingly important field and may lead **[*1216]** to patent-eligible improvements in technology. Today, we hold only that patents that 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, are patent ineligible under *§ 101*.

AFFIRMED

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