

NOTE: This disposition is nonprecedential.

**United States Court of Appeals
for the Federal Circuit**

MAX A. RADY,
Plaintiff-Appellant

v.

**THE BOSTON CONSULTING GROUP, INC., DE
BEERS UK LTD.,**
Defendants-Appellees

2022-2218

Appeal from the United States District Court for the
Southern District of New York in No. 1:20-cv-02285-ALC-
BCM, Judge Andrew L. Carter.

Decided: March 27, 2024

STEVEN EDWARD TILLER, Whiteford, Taylor & Preston,
LLP, Baltimore, MD, argued for plaintiff-appellant. Also
represented by PETER JAMES DAVIS; KEVIN HROBLAK, Ice
Miller LLP, Baltimore, MD.

BRIAN ROBERT MATSUI, Morrison & Foerster LLP,
Washington, DC, argued for all defendants-appellees. De-
fendant-appellee Boston Consulting Group, Inc. also repre-
sented by SHAUN PATRICK DELACY, KYLE W.K. MOONEY,

New York, NY.

CHRISTOPHER P. BORELLO, Venable LLP, New York, NY, for defendant-appellee De Beers UK Ltd. Also represented by JOSHUA DANIEL CALABRO.

Before REYNA, MAYER, and CUNNINGHAM, *Circuit Judges*.

PER CURIAM.

Max A. Rady appeals an order of the United States District Court for the Southern District of New York dismissing his patent infringement claim after concluding that his asserted patent claimed ineligible subject matter under 35 U.S.C. § 101. For the reasons discussed below, we affirm.

I. BACKGROUND

Rady owns U.S. Patent No. 10,469,250 (the “’250 patent”), which is directed to “a framework [for] record[ing] to a blockchain” the “unique identification[s] (signatures) of physical items which have unique, random properties.” ’250 patent, Abstract. The claimed invention involves scanning a physical item, such as a gemstone, determining its unique pattern of imperfections, i.e., the item’s “signature,” and then recording that signature to a blockchain if the physical object has not previously been registered. *Id.* col. 1 ll. 22–53. The patent purports to solve problems related to asset provenance and asset and supply chain management. *Id.* col. 3 l. 33–col. 5 l. 43. Claim 1 of the ’250 patent recites:

1. A network node comprising:

one or more processing devices;

a storage device, coupled to the one or more processing devices and storing instructions for execution by at least some of the one or more processing devices;

a communications subsystem, coupled to the one or more processing devices, to communicate with at least one or more other nodes of a peer-to-peer network; and

item analysis components coupled to the one or more processing devices, the item analysis components comprising at least one imaging device configured to determine spectral analysis data and 3D scan data from measurements generated by the item analysis components;

wherein the one or more processing devices operate to configure the network node to:

analyze an instance of a physical item using the item analysis components to determine a unique signature for the instance, the unique signature determined using 3D spatial mapping to define the unique signature from the spectral analysis data and 3D scan data generated by the item analysis components for the physical item;

determine, using the unique signature, whether the instance of the physical item is previously recorded to a blockchain maintained by the peer-to-peer network to provide item tracking and authentication services, comparing the unique signature generated by the network node to previously recorded unique signatures using 3D spatial analysis techniques, rotating in virtual space features of the physical item defined in the unique signature to determine a match with features defined in the previously recorded unique signatures; and

record the instance of the physical item to the blockchain in response to the determining whether the instance is previously recorded.

Id. col. 19 ll. 15–51.*

In March 2020, Rady filed suit against The Boston Consulting Group, Inc. and De Beers UK Ltd. (collectively, “BCG”), alleging infringement of the ’250 patent. BCG thereafter filed a motion to dismiss Rady’s infringement claim pursuant to Federal Rule of Civil Procedure 12(b)(6). In its motion to dismiss, BCG asserted that “the claims of the ’250 patent are directed to the patent-ineligible abstract idea of collecting, processing, and storing data to track physical items” and they “do not improve anything about computer technology itself.” J.A. 196.

In granting BCG’s motion, the district court stated that while Rady’s claimed system “record[s] a fingerprint for a gemstone” to a blockchain, the patent does “not improv[e] the functionality of storing and processing data on a blockchain.” J.A. 5. The court noted, moreover, that “a blockchain is merely a ledger maintained and verified through a peer-to-peer network, and [Rady] d[id] not describe how the patent improves blockchains.” J.A. 5–6. Furthermore, according to the court, “tracking physical objects do[es] not make [the] claims any less abstract.” J.A. 5.**

Rady then filed a timely appeal with this court. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

* Because Rady has not adequately developed any eligibility arguments about claims of the ’250 patent other than claim 1, we treat claim 1 as representative.

** In addition to patent infringement claims, Rady’s Second Amended Complaint contained breach of contract and trade secret misappropriation claims. *See* J.A. 183–86. After the district court entered its order dismissing his infringement claims, Rady agreed to dismiss, with prejudice, his breach of contract and trade secret misappropriation claims. *See* J.A. 728–29.

II. DISCUSSION

A. Standard of Review

We apply regional circuit law when reviewing motions to dismiss for failure to state a claim under Rule 12(b)(6). *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n*, 776 F.3d 1343, 1346 (Fed. Cir. 2014). “In the Second Circuit, grant of a motion to dismiss is reviewed *de novo* to determine whether the claim is plausible on its face, accepting the material factual allegations in the complaint and drawing all reasonable inferences in favor of the plaintiff.” *Ottah v. Fiat Chrysler*, 884 F.3d 1135, 1141 (Fed. Cir. 2018) (first citing *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009); and then citing *Johnson v. Priceline.com, Inc.*, 711 F.3d 271, 275 (2d Cir. 2013)).

B. Patent Eligibility

Section 101 defines patent-eligible subject matter as “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” 35 U.S.C. § 101. It has been long recognized that this language excludes “[l]aws of nature, natural phenomena, and abstract ideas.” *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013) (“*Myriad*”) (quoting *Mayo Collaborative Servs. v. Prometheus Lab'ys, Inc.*, 566 U.S. 66, 70 (2012)); *see also Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014).

The Supreme Court has articulated a two-stage framework to determine whether a claim falls outside the scope of section 101. *See Alice*, 573 U.S. at 217–18. In the first stage, a court must determine whether the claim at issue is directed to a patent-ineligible concept, such as an abstract idea. *Id.* at 217. If so, the court, in the second stage, must assess whether the elements of the claim, considered both individually and as an ordered combination, are sufficient to “transform the nature of the claim’ into a patent-eligible application” of the concept. *Id.* (quoting *Mayo*, 566

U.S. at 78). This second stage of the eligibility analysis is often referred to as the “search for an ‘inventive concept’—*i.e.*, an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.” *Id.* at 217–18 (alteration in original) (quoting *Mayo*, 566 U.S. at 72–73).

C. *Alice* Step One

The *Alice* step-one analysis requires us to consider the claims “in their entirety to ascertain whether their character as a whole is directed to excluded subject matter.” *Internet Pats. Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015). “[W]hile the specification may help illuminate the true focus of a claim, when analyzing patent eligibility, reliance on the specification must always yield to the claim language in identifying that focus.” *Charge-Point, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 766 (Fed. Cir. 2019).

We agree with the district court that, at step one, the claims of the ’250 patent are directed to an abstract idea. *See* J.A. 5. Claim 1 requires identifying a physical item’s unique pattern of physical imperfections, or “signature,” and then recording that information to a blockchain if the object has not been previously registered. ’250 patent col. 19 ll. 15–51. As we have often emphasized, however, claims directed to gathering and storing data, without more, are impermissibly abstract. *See, e.g., Int’l Bus. Machs. Corp. v. Zillow Grp., Inc.*, 50 F.4th 1371, 1378 (Fed. Cir. 2022) (explaining that this court has “repeatedly held claims directed to collection of information, comprehending the meaning of that collected information, and indication of the results, all on a generic computer network operating in its normal, expected manner to be abstract” (citation and internal quotation marks omitted)); *In re Killian*, 45 F.4th 1373, 1382 (Fed. Cir. 2022) (explaining that because “[i]nformation as such is an intangible,” claims directed to

“gathering and analyzing information of a specified content, then displaying the results without any particular assertedly inventive technology for performing those functions is an abstract idea” (alteration in original) (citation and internal quotation marks omitted)).

We note, moreover, that identifying items by their unique physical features is a long-standing and well-established practice. *See, e.g., Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (concluding that claims covering “the basic concept of hedging, or protecting against risk” described “a fundamental economic practice long prevalent in our system of commerce and taught in any introductory finance class” and were therefore directed to “an unpatentable abstract idea” (citation and internal quotation marks omitted)); *Solutran, Inc. v. Elavon, Inc.*, 931 F.3d 1161, 1167 (Fed. Cir. 2019) (concluding that claims reciting a method for electronically processing checks were patent ineligible and explaining that “[t]he desire to credit a merchant’s account as soon as possible” was a “long-standing commercial practice”). As the specification of the ’250 patent acknowledges, it has been long understood that many physical objects have unique “small-scale imperfections.” ’250 patent col. 5 l. 19. Diamonds, for example, have “carbon imperfections/carbon flaws” that “are unique in 3D space in the diamond’s shape and type.” *Id.* col. 3 ll. 55–56. Indeed, Rady’s specification incorporates by reference a jewelry website that explains that diamonds can be identified by their unique imperfections. *Id.* col. 3 ll. 56–59 (incorporating by reference J.A. 268–70).

The fact that Rady’s patent describes the use of specialized hardware does not, standing alone, mean that his claims are not directed to an abstract idea. As we have previously recognized, “claims are not saved from abstraction merely because they recite components more specific than a generic computer.” *BSG Tech LLC v. BuySeasons, Inc.*, 899 F.3d 1281, 1286 (Fed. Cir. 2018); *see also Universal Secure Registry LLC v. Apple Inc.*, 10 F.4th 1342, 1352

(Fed. Cir. 2021) (concluding that claims were directed to an abstract idea notwithstanding the fact that they recited the use of a “biometric sensor”); *In re TLI Commc’ns LLC Pat. Litig.*, 823 F.3d 607, 611 (Fed. Cir. 2016) (concluding that a claim was directed to an abstract idea notwithstanding the fact that it “require[d] concrete, tangible components such as a telephone unit and a server” because “the specification ma[de] clear that the recited physical components merely provide[d] a generic environment in which to carry out the abstract idea of classifying and storing digital images in an organized manner” (internal quotation marks omitted)); *Content Extraction*, 776 F.3d at 1347 (concluding that claims were directed to an abstract idea notwithstanding the fact that they required the use of a scanner).

From an eligibility perspective, the principal shortcoming in Rady’s claims is that they “recite generic steps and results—as opposed to a specific solution to a technological problem,” *Universal Secure Registry*, 10 F.4th at 1355. Claim 1 of the ’250 patent recites, in broad terms, the use of “item analysis components” to gather “spectral analysis data and 3D scan data” about the unique imperfections present in physical objects. ’250 patent col. 19 ll. 23–28. Rady’s patent, however, does not purport to have invented any new measurement techniques or measurement devices to identify such imperfections. Instead, it relies upon existing devices, such as a “[s]pectral imager,” “[l]aser projector,” “laser receiver,” and “[x]enon light source,” to analyze these imperfections. *Id.* col. 8 ll. 32–47.

Rather than providing any significant details regarding how these various item analysis components function to determine an object’s “unique signature,” *id.* col. 1 ll. 47–48, the specification simply incorporates by reference a prior publication which discloses “an end-to-end measurement system for capturing spectral data on 3D objects,” J.A. 220, and which explains how components such as spectral imagers, J.A. 221–23, laser scanning systems, J.A. 225–26, and a xenon light source, J.A. 225–26, can be used

to analyze and identify various physical objects, including “minerals,” J.A. 226. *See* ’250 patent col. 8 ll. 32–47. Rady’s specification then goes on to explain that, in the claimed invention, spectral imagers, laser scanning systems, and light sources are used as “described in” this prior publication. *Id.*; *see also id.* col. 4 ll. 38–50 (explaining that a diamond can be reoriented in virtual space using techniques similar to those described in a previously published article). In essence, Rady’s specification “underscores the . . . abstract nature of the idea embodied in [his] claims,” *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1259 (Fed. Cir. 2016), because rather than purporting to disclose any technological improvement to the item analysis components, it confirms that such devices are used in the same manner as they have been used in the past.

The specification makes clear, moreover, that the claimed invention relies on the conventional use of existing blockchain technology. It explains that existing “[b]lockchain technologies implement distributed ledgers on peer-to-peer networks,” ’250 patent col. 1 ll. 6–7, and notes that “[b]lockchains provide a way to trace unique digital items without reliance on a third party,” *id.* col. 1 ll. 11–12. It further describes widely-used standard protocols for constructing and operating blockchains. *Id.* col. 7 ll. 46–57 (describing the existing “Blockchain Authentication and Trust Module (BATM) framework”). Rather than purporting to disclose any new type of blockchain or any improvement in blockchain functionality, the specification incorporates by reference papers describing conventional blockchain construction and performance. *Id.* col. 7 ll. 20–25, 46–57 (incorporating by reference J.A. 272–82 and J.A. 386–91). The specification recognizes, moreover, that blockchain technology has previously been used in connection with the management of “physical assets.” *Id.* col. 3 ll. 36–37.

On appeal, Rady asserts that “counterfeiting is a widespread economic problem that results in billions of dollars in lost revenue each year, exposing individuals and

corporations to heightened health, safety, and cybersecurity risks from fraudulent materials and defective parts.” Appellant’s Br. 10. He further states that “[a]n application to confirm the provenance of gemstones . . . allow[s] stones to be traced by their unique characteristics, allowing banks and lenders to identify any ‘double spending’ of stones.” *Id.* at 11. In his view, his “claimed invention is the first use case that pairs the use of a non-invasive, unique, non-reproducible identifier for the unique identification, authentication [and] self-provenance of individual physical items, with blockchain technology, thus enabling the supply chain management to reap the full benefits of blockchain technology and succeed in combating counterfeiting.” *Id.* at 35.

Rady’s claimed system may be useful in preventing the counterfeiting of gemstones, but utility is not the measure of patent eligibility. *See Myriad*, 569 U.S. at 591 (explaining that “[g]roundbreaking, innovative, or even brilliant discovery does not by itself satisfy the § 101 inquiry”). Rady’s claims are directed to an abstract idea because they do not purport to solve any technological problem, but instead use existing imaging and blockchain technology in predictable ways to address the economic problem of counterfeit goods. In effect, Rady’s claims rely on existing technological tools to gather and record data but disclose no purported improvement in the tools themselves. *See Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016) (concluding that claims were directed to an abstract idea where their “focus” was not on “an improvement in computers as tools, but on certain independently abstract ideas that use computers as tools”); *see also Trading Techs. Int’l, Inc. v. IBG LLC*, 921 F.3d 1084, 1093 (Fed. Cir. 2019) (concluding that claims were directed to an abstract idea because they did “not improve the functioning of the computer, make it operate more efficiently, or solve any technological problem”).

D. *Alice* Step Two

Turning next to *Alice* step two, we conclude that Rady's claims fail to recite any elements that, either individually or as an ordered combination, transform the abstract idea of gathering and storing data about the unique imperfections of a physical object into a patent-eligible application of that idea. *See Alice*, 573 U.S. at 217. Rady argues that his "claims are directed to the inventive combination of multiple item analyses components to capture" the unique imperfections in physical objects. Appellant's Br. 39. We do not find this argument persuasive. Rady's patent does not meaningfully explain how the various "item analysis components," '250 patent col. 19 l. 23, are configured and combined, much less purport to combine those components in an inventive way. *See TLI Commc'ns*, 823 F.3d at 615 (emphasizing that "vague, functional descriptions of . . . components are insufficient to transform [an] abstract idea into a patent-eligible invention").

Nor does Rady plausibly allege that recording information about the unique imperfections of a physical object on a blockchain, rather than another type of ledger, supplies an inventive concept. As discussed previously, Rady's patent does not purport to disclose any novel type of blockchain or other decentralized network. It does not, moreover, disclose any improved or otherwise unconventional technique for storing data on a blockchain. In this regard, the fact that the patent describes recording a particular type of information—data about the unique pattern of imperfections in a physical object—to a blockchain does not mean that it improves the underlying blockchain technology. *See BSG Tech*, 899 F.3d at 1288 (explaining that "an improvement to the information stored by a database is not equivalent to an improvement in the database's functionality"). Thus, because the claims of the '250 patent use conventional item analysis components and existing blockchain technology to implement the abstract idea of gathering and storing information about physical objects,

they fail to supply the inventive concept required at *Alice* step two. See *Trinity Info Media, LLC v. Covalent, Inc.*, 72 F.4th 1355, 1367 (Fed. Cir. 2023) (explaining that this court has “found no inventive concept where claims merely recited ‘generic features’ or ‘routine functions’ to implement the underlying abstract idea” (citations omitted)).

E. Motion to Dismiss

We reject, moreover, Rady’s contention that the district court prematurely resolved the eligibility question. “Like other legal questions based on underlying facts, [the eligibility] question may be, and frequently has been, resolved on a Rule 12(b)(6) or (c) motion where the undisputed facts, considered under the standards required by that Rule, require a holding of ineligibility under the substantive standards of law.” *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1166 (Fed. Cir. 2018). In response to BCG’s Rule 12(b)(6) motion, Rady asserted that his claimed invention passed muster under section 101 because it relied upon specialized sensors, J.A. 327–28, and “solv[ed] a complicated and long[-]standing problem plaguing many industries,” J.A. 335. Because Rady failed to present non-conclusory allegations that his patent disclosed any specific technical improvements to computers, measurement devices, blockchains, or any other technology, however, the district court properly resolved the eligibility question at the pleadings stage. See, e.g., *Simio, LLC v. FlexSim Software Prods., Inc.*, 983 F.3d 1353, 1365 (Fed Cir. 2020) (“We disregard conclusory statements when evaluating a complaint under Rule 12(b)(6).”). We have considered Rady’s remaining arguments but do not find them persuasive.

III. CONCLUSION

Accordingly, the order of the United States District Court for the Southern District of New York is affirmed.

AFFIRMED