United States Court of Appeals for the Federal Circuit

UNITED SERVICES AUTOMOBILE ASSOCIATION,
Plaintiff-Cross-Appellant

v.

PNC BANK N.A.,
Defendant-Appellant

2023-1639, 2023-1866, 2025-1276, 2025-1341

Appeals from the United States District Court for the Eastern District of Texas in Nos. 2:21-cv-00246-JRG, 2:22-cv-00193-JRG, Judge J. Rodney Gilstrap.

Decided: June 12, 2025

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GERARD ANDREW SALVATORE, Washington, DC, MELISSA R. SMITH, Gillam & Smith LLP, Marshall, TX.

Before DYK, CLEVENGER, and HUGHES, *Circuit Judges*.

HUGHES, *Circuit Judge*.

PNC Bank, N.A. appeals the U.S. District Court for the Eastern District of Texas's grant of United Services Automobile Association's motion for summary judgment of patent eligibility under 35 U.S.C. § 101. This appeal concerns U.S. Patent No. 10,769,598, U.S. Patent No. 10,402,638, and U.S. Patent No. 9,224,136. We limit our discussion to the '638 patent because we have separately affirmed an *inter partes review* of the '598 patent finding the asserted claims unpatentable under 35 U.S.C. § 103, *see United Services Automobile Ass'n. v. PNC Bank N.A.*, No. 23-2171, 2025 WL 339662 (Fed. Cir. Jan. 30, 2025), and an *inter partes review* of the '136 patent also finding the asserted claims unpatentable under 35 U.S.C. § 103, *see United Services Automobile Ass'n. v. PNC Bank N.A.*, No. 23-2244, 2025 WL 706080 (Fed. Cir. Mar. 5, 2025).[1] Because the asserted claim of the '638 patent is directed to an abstract idea and does not contain an inventive concept, we reverse.

I

A

USAA owns the '638 patent, entitled "Digital Camera Processing System," which is directed to remote check

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[1] Since we have affirmed the invalidity of these patents, we need not reach the § 101 issue as to these patents. *See XY, LLC v. Trans Ova Genetics*, 890 F.3d 1282, 1294 (Fed. Cir. 2018) ("[A]n affirmance of an invalidity finding, whether from a district court or the Board, has a collateral estoppel effect on all pending or co-pending actions.").

deposit technology. USAA alleges that it wanted to improve upon early remote check deposit systems, which required specialized check scanners to ensure high quality check image capture. The '638 patent contemplates a customer using her personal mobile device, like a cell phone, to take a picture of a check and transmit that image to her financial institution. In order to ensure the check image is appropriately captured and increase the likelihood that the check will be accepted for deposit, the patent discusses implementing real-time error checking steps, like using optical character recognition (OCR) to read the account number, routing number, and check number, to ensure the resultant image is of sufficient quality for computer-based check recognition systems.

The only claim asserted from the '638 patent is claim 20, which recites:

> 20. A system for allowing a customer to deposit a check using a customer's handheld mobile device, the system configured to authenticate the customer using data representing a customer fingerprint, the system including:
>
> > a customer's handheld mobile device including a downloaded app, the app associated with a bank and causing the customer's handheld mobile device to perform the following steps:
> >
> > > instructing the customer to take a photo of the check;
> > >
> > > using a display of the customer's handheld mobile device to assist the customer in taking the photo of the check;
> > >
> > > assisting the customer as to an orientation for taking the photo; and

> using a wireless network, transmitting a copy of the photo from the customer's handheld mobile device and submitting the check for mobile check deposit;
>
> a bank computer programmed to update a balance of an account to reflect an amount of the check submitted for mobile check deposit by the customer's handheld mobile device;
>
> the system being configured to check for errors before the submitting is performed by the customer's handheld mobile device; and
>
> the system being configured to confirm that the mobile check deposit can go forward after optical character recognition is performed on the check in the photo.

'638 patent, 16:44–17:3.

B

USAA sued PNC for infringement of the asserted patents. After discovery, both parties filed cross-motions for summary judgment on whether the claims were patent eligible under 35 U.S.C. § 101. The district court granted USAA's motion for summary judgment and denied PNC's, concluding that the asserted claims were patent eligible under § 101 because they are not directed to an abstract idea. J.A. 64–65. The district court then held a five-day jury trial.[2] The jury found no invalidity of the asserted claims of

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[2] USAA dropped its contentions asserting infringement of the '136 patent before trial. J.A. 88. The trial accordingly involved the '598 and '638 patents, as well as two of PNC's patents later severed into a new case and not at issue in this appeal.

the '598 and '638 patents and that PNC had infringed USAA's patents. J.A. 10040–41.

After the district court entered final judgment, PNC timely filed its notice of appeal of the district court's summary judgment ruling on § 101. J.A. 10449–50. USAA cross-appealed alleging improper damages testimony from PNC's experts during trial. J.A. 10487–89. We have jurisdiction under 28 U.S.C. § 1295(a)(1).[3]

II

We apply the law of the regional circuit when reviewing a district court's summary judgment ruling, and the Fifth Circuit reviews these rulings de novo. *Ericsson Inc. v. TCL Commc'n Tech. Holdings Ltd.*, 955 F.3d 1317, 1324–25 (Fed. Cir. 2020); *Tex. Soil Recycling, Inc. v. Intercargo Ins.*

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[3] Before oral argument, we discovered that the record was unclear as to whether there were final judgments entered on PNC's counterclaims of noninfringement and invalidity under §§ 101, 102, 103, and/or 112 as to U.S. Patent No. 9,224,136 in this case, and U.S. Patent No. 10,621,559 in case No. 2023-1778. ECF No. 61. We directed the parties to address whether there were final judgments on these claims at oral argument. *Id.* We determined that the record remained unclear, and we remanded the appeals to the district court for the limited purpose of entering amended final judgments. ECF No. 63. After entry of final judgment, the parties filed new notices of appeal. *United Servs. Auto. Assn. v. PNC Bank, N.A.*, No. 2025-1276, ECF No. 1 (Fed. Cir. Dec. 12, 2024); *United Servs. Auto. Assn. v. PNC Bank, N.A.*, No. 2025-1341, ECF No. 1 (Fed. Cir. Jan. 1, 2025). We consolidated the cases and elected to decide the appeals based on the prior-filed briefs and the corresponding oral argument we heard on November 6, 2024. ECF No. 66.

Co., 273 F.3d 644, 648 (5th Cir. 2001). Summary judgment is appropriate when, drawing all justifiable inferences in the nonmovant's favor, "there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a); *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 247–48, 255 (1986).

Patent eligibility under § 101 is a question of law based on underlying findings of fact; we review a district court's legal conclusion of patent eligibility de novo. *Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335, 1342 (Fed. Cir. 2018).

III

Section 101 provides that a patent may be obtained for "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof." 35 U.S.C. § 101. But there is an important exception: "[l]aws of nature, natural phenomena, and abstract ideas are not patentable," because tying up these "basic tools of scientific and technological work" through patent grants risks impeding innovation. *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014) (internal quotations and citation omitted). The Supreme Court laid out a two-step inquiry in *Alice* to determine whether a patent is directed to eligible subject matter under § 101. We first consider "whether the claims at issue are directed to a patent-ineligible concept." *Id.* at 218. If the claims are directed to a patent-ineligible concept, we then "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.* at 217 (quoting *Mayo Collaborative Servs. v. Prometheus Lab'ys, Inc.*, 566 U.S. 66, 78–79 (2012)).

A

The district court found USAA's asserted patents were not directed to an abstract concept and were therefore

eligible under § 101. J.A. 22, 64–65. We disagree; the asserted claim is directed to the abstract idea of depositing a check using a handheld mobile device.

At *Alice* step one, we look to whether the claims are directed to a patent-ineligible concept. *Alice*, 573 U.S. at 218. The inquiry centers on whether the character of the claims as a whole is directed to excluded subject matter, not just whether the claims involve an abstract idea. *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015). We focus on the claims, not the specification, to determine eligibility, because "the level of detail in the specification does not transform a claim reciting only an abstract concept into a patent-eligible system or method." *Accenture Glob. Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1345 (Fed. Cir. 2013).

We have previously held that claims directed to collecting information, analyzing information by "steps people go through in their minds, or by mathematical algorithms, without more," and presenting the results of collecting and analyzing information fall "within the realm of abstract ideas." *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353–54 (Fed. Cir. 2016) (citing cases). In *Enfish, LLC v. Microsoft Corp.*, we further clarified that step one of the *Alice* inquiry asks "whether the focus of the claims is 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." 822 F.3d 1327, 1335–36 (Fed. Cir. 2016).

The patent in this case claims "[a] system for allowing a customer to deposit a check using a customer's handheld mobile device." '638 patent, 16:44–45. The claim includes steps for carrying out this process, including "instructing the customer to take a photo of check," "using a wireless network" to transmit a copy of the photo, and having the configured system "check for errors." *Id.* at 16:53–65. PNC contends that these steps improve check depositing

technology by allowing checks to be deposited quickly and remotely without requiring specialized equipment, thus providing a technological solution to a technological problem. But these are routine processes implemented by a general-purpose device (e.g., a handheld mobile device) in a conventional way. We have repeatedly held that mere computer-based implementation, without more, is not sufficient to render claims directed to patent-eligible subject matter at step one. *See, e.g.*, *Alice,* 573 U.S. at 225–26 (holding patent-ineligible claims that "amount to nothing significantly more than an instruction to apply the abstract idea . . . using some unspecified, generic computer" and in which "each step does no more than require a generic computer to perform generic computer functions") (internal quotation marks and citation omitted).

Here, the claim recites routine data collection and analysis steps that have been traditionally performed by banks and people depositing checks—namely reviewing checks, recognizing relevant data, checking for errors, and storing the resultant data. *See Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass'n,* 776 F.3d 1343, 1348 (Fed. Cir. 2014) ("And banks have, for some time, reviewed checks, recognized relevant data such as the amount, account number, and identity of account holder, and stored that information in their records.").

The addition of a handheld mobile device to carry out these routine steps does not make the claim any less abstract. The claim is drafted in a result-oriented fashion, without the requisite specificity needed to provide a non-abstract technological solution. USAA discusses how "accomplishing check deposit on a consumer device required the development of extremely non-obvious algorithms." USAA's Response Br. 31 (internal citation omitted). But those algorithms are not found within the claim or the specification—the claim merely recites a system that is "configured to" "authenticate the customer," "check for errors," and "confirm that the mobile check deposit can go forward"

without providing *how* the system is configured. '638 patent, 16:44–17:3. In *McRO, Inc. v. Bandai Namco Games America Inc.,* we found that the claims were not directed to ineligible subject matter because they incorporated specific features of defined rules as claim limitations. 837 F.3d 1299, 1316 (Fed. Cir. 2016) (involving claims directed to specific techniques for automating 3–D animation). But here, we lack any clear description of how these processes are performed and therefore do not have the same degree of specificity concerning what the technological improvement is and how it is accomplished. The claim instead provides a *concept* of improving the check deposit process by using a handheld mobile device, which is insufficient to render the claims directed to patent-eligible subject matter.

Further, "improving a user's experience while using a computer application is not, without more, sufficient to render the claims directed to an improvement in computer functionality." *Simio, LLC v. FlexSim Software Prods., Inc.,* 983 F.3d 1353, 1361 (Fed. Cir. 2020) (quotation marks and citation omitted). The claim here is directed to improving the user's experience of depositing a check by allowing the use of familiar and easily acquired electronics. But the claimed steps do not improve the way in which the handheld mobile device functions; the device is merely a tool to perform the conventional steps associated with check depositing. We thus conclude that the claim is directed to the abstract idea of depositing a check.

B

Because the district court concluded that the claim was not directed to an abstract idea, it did not reach *Alice* step

two. We do and conclude that the claim is not eligible under § 101.[4]

At step two, we consider whether the elements of the claim contain an inventive concept sufficient to transform the abstract idea into a patent-eligible application. *Alice*, 573 U.S. at 217–18. "The 'inventive concept' may arise in one or more of the individual claim limitations or in the ordered combination of the limitations." *Bascom Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1349 (Fed. Cir. 2016) (citing *Alice*, 573 U.S. at 217). The inventive concept requires more than mere application of the abstract idea, or "the mere recitation of a generic computer." *Alice*, 573 U.S. at 223. "[I]nvoking a computer merely as a tool" to "improve a fundamental practice or abstract process" does not make an otherwise abstract claim non-abstract, *Customedia Techs., LLC v. Dish Network Corp.*, 951 F.3d 1359, 1364 (Fed. Cir. 2020), nor does limiting the claim to "a particular field of use or technological environment," *Intell. Ventures I LLC v. Cap. One Bank (USA)*, 792 F.3d 1363, 1366 (Fed. Cir. 2015).

We conclude there is no inventive concept that would support patent eligibility under step two. Our precedent is clear that computer-mediated implementation of routine or conventional activity is not enough to provide an inventive concept. *See, e.g.*, *Content Extraction*, 776 F.3d. at 1347–48. USAA alleges that the claim read as a whole, considering the ordered combination of elements, contains

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[4] Because patent eligibility under § 101 is a question of law that we review de novo, we may reach step two even though the district court did not. *See Chamberlain Grp., Inc. v. Techtronic Indus. Co.,* 935 F.3d 1341, 1346–49 (Fed. Cir. 2019) (reaching step two even though the district court only reached step one when reviewing a district court's denial of a motion for judgment as a matter of law on the issue of patent-eligibility under § 101).

an inventive concept because it solves the technological problem of accurate detection and extraction of information from digital images of checks using general purpose mobile devices. We disagree.

The claim recites nothing more than routine image capture, OCR, and data processing steps—all of which were well-known and routine. *See Content Extraction*, 776 F.3d at 1348 ("[U]se of a scanner or other digitizing device to extract data from a document was well-known at the time of filing, as was the ability of computers to translate the shapes on a physical page into typeface characters."). The inclusion of a handheld mobile device in the claim does not add an inventive concept as the use of a handheld mobile device does "no more than claim[] the abstract idea itself." *Recentive Analytics, Inc. v. Fox Corp.*, 134 F.4th 1205, 1215 (Fed. Cir. 2025). Moreover, the mobile device is a piece of generic hardware. USAA contends that the inventive concept is implementing these steps on a customer's mobile device, instead of a specialized check scanner. *See* USAA's Response Br. 49. But such implementation is not inventive. We may not limit the claim to a particular technological environment, *Capital One*, 792 F.3d at 1366, and these steps were already considered conventional. We do not find an inventive concept in the claim—only the implementation of routine activities using a generic device.

We have found inventive concepts in cases where the claims have fundamentally changed or improved *how* a computer functions. *See, e.g.*, *Bascom*, 827 F.3d at 1345, 1350–51 (discussing that optimized location of a computer network filter improved network performance and went beyond the abstract idea of filtering); *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014) (addressing a problem in "conventional functioning of Internet hyperlink protocol," not merely the "use of the Internet"). But here, there is no technological improvement—though the claim recites a system that makes the remote check deposit process easier and more convenient for bank

customers, there is no fundamental change to how any of the technology functions, because it is all operating in a conventional way. Nor is there any disclosure of technology for depositing a check using a handheld mobile device. We conclude that the claim lacks an inventive concept that would transform the claim into a patent-eligible application of an abstract idea.

USAA argues that summary judgment should be denied even if we reach step two, because there are still material disputes of fact, namely that some claim elements, like OCR, remote deposit applications, and cameras, were not conventional. USAA's Response Br. 46–47. We disagree; there are no genuine disputes of material fact on this issue. *See Broadband iTV, Inc. v. Amazon.com, Inc.*, 113 F.4th 1359, 1366–67 (Fed. Cir. 2024), *cert. denied*, No. 24-827, 2025 WL 1151241 (U.S. Apr. 21, 2025) ("Section 101 patent eligibility may be resolved on summary judgment so long as there is not a genuine dispute of material fact."). There is ample evidence in the record and in our caselaw that OCR was known, *see, e.g.*, J.A. 5585–86 (discussing that OCR technology was used in commercial check depositing systems and that USAA does not claim to have invented OCR technology); *Content Extraction*, 776 F.3d at 1349 (discussing "generic optical character recognition technology" as a "routine function of scanning technology"), and the patent itself touts as a key advantage "its ability to operate in conjunction with electronics that today's customers actually own or can easily acquire, such as a general purpose computer, a scanner, and a digital camera," '638 patent, 4:21–24. We conclude that there are no genuine disputes of material fact that prevent resolution of the § 101 analysis on summary judgment.

IV

We have considered USAA's remaining arguments and find them unpersuasive. Because we reverse the district court's grant of summary judgment on patent eligibility

and determine the claim is not directed to patent-eligible subject matter, we need not reach USAA's cross-appeal concerning the alleged admission of improper expert testimony on damages because there are no longer any valid patents to support the jury verdict. *See XY*, 890 F.3d at 1294 (dismissing appeal of district court issue as moot because the court's affirmance of invalidity of a patent "has an immediate issue-preclusive effect on any pending or copending actions involving the patent"); *Senju Pharm. Co. v. Lupin Ltd.*, 780 F.3d 1337, 1353 (Fed. Cir. 2015) (declining to reach issues of infringement and estoppel when the underlying claims were deemed invalid).

REVERSED

COSTS

Costs against USAA.