In the United States Court of Appeals For the Federal Circuit

STEVEN E. BERKHEIMER,

Plaintiff-Appellant,

V

HP INC., FKA HEWLETT-PACKARD COMPANY, Defendant-Appellee.

On Appeal from the United States District Court for the Northern District of Illinois Case No. 1:12-cv-09023, Honorable John Z. Lee

APPELLEE HP INC.'S PETITION FOR REHEARING EN BANC

Allyson N. Ho Morgan, Lewis & Bockius LLP 1717 Main St., Suite 3200 Dallas, TX 75201 T: 214.466.4000 F: 214.466.4001 allyson.ho@morganlewis.com

Jason C. White
Nicholas A. Restauri
Morgan, Lewis & Bockius LLP
77 West Wacker Dr.
Chicago, IL 60601
T: 312.324.1000
F: 312.324.1001
jason.white@morganlewis.com
nicholas.restauri@morganlewis.com

David J. Levy
William R. Peterson
Thomas R. Davis
Morgan, Lewis & Bockius LLP
1000 Louisiana St., Suite 4000
Houston, TX 77002
T: 713.890.5000
F: 713.890.5001
david.levy@morganlewis.com
william.peterson@morganlewis.com
thomas.davis@morganlewis.com

Julie S. Goldemberg Morgan, Lewis & Bockius LLP 1701 Market St. Philadelphia, PA 19103 T: 215.963.5000 F: 215.963.5001 julie.goldemberg@morganlewis.com

Counsel for Appellee, HP Inc., FKA Hewlett-Packard Company

CERTIFICATE OF INTEREST

Counsel for Defendant-Appellee HP Inc., FKA Hewlett-Packard Company certifies the following:

1. Full Name of Party	2. Name of Real	3. Parent corporations and publicly	
Represented by me	Party in interest	held companies that own 10% or	
	represented by me is:	more of stock in the party	
HP Inc., formerly	Not applicable	None	
known as Hewlett-			
Packard Company			

4. The names of all law firms and the partners or associates that appeared for the party or amicus now represented by me in the trial court or agency or are expected to appear in this court (and who have not or will not enter an appearance in this case) are:

MORGAN, LEWIS & BOCKIUS LLP: David J. Levy, William R. Peterson, Thomas R. Davis, Jason C. White, Nicholas Restauri, Scott Sherwin, Allyson N. Ho, Julie S. Goldemberg, Daniel Johnson, Jr. (now with the Dan Johnson Law Group), Mansi H Shah (now with Merchant & Gould, LLP), and David Nicholas Patariu (now with Pillsbury Winthrop Shaw Pittman LLP).

5. The title and number of any case known to counsel to be pending in this or any other court or agency that will directly affect or be directly affected by this court's decision in the pending appeal. See Fed. Cir. R. 47.4(a)(5) and 47.5(b).

Undersigned counsel is unaware of any case pending in this or any other court that will directly affect or be directly affected by this Court's decision in the pending appeal.

/s/ Allyson N. Ho

Dated: March 7, 2018

Allyson N. Ho Morgan, Lewis & Bockius LLP 1717 Main St., Suite 3200 Dallas, TX 75201 T: 214.466.4000 F: 214.466.4001 allyson.ho@morganlewis.com

Jason C. White
Nicholas A. Restauri
Morgan, Lewis & Bockius LLP
77 West Wacker Dr.
Chicago, IL 60601
T: 312.324.1000
F: 312.324.1001
jason.white@morganlewis.com
nicholas.restauri@morganlewis.com

David J. Levy
William R. Peterson
Thomas R. Davis
Morgan, Lewis & Bockius LLP
1000 Louisiana St., Suite 4000
Houston, TX 77002
T: 713.890.5000
F: 713.890.5001
david.levy@morganlewis.com
william.peterson@morganlewis.com
thomas.davis@morganlewis.com

Julie S. Goldemberg Morgan, Lewis & Bockius LLP 1701 Market St. Philadelphia, PA 19103 T: 215.963.5000 F: 215.963.5001 julie.goldemberg@morganlewis.com

Counsel for Appellee HP Inc., FKA Hewlett-Packard Company

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STATEMENT OF COUNSEL REQUIRED BY FED. CIR. R. 35(b)

Based on my professional judgment, I believe the panel decision is contrary to the following decision(s) of the Supreme Court of the United States or the precedent(s) of this Court: Alice Corp. Pty. Ltd. v. CLS Bank Int'l, 134 S. Ct. 2347, 2355 (2014); Mayo Collaborative Services v. Prometheus Laboratories, Inc., 566 U.S. 66, 75 (2012); Bilski v. Kappos, 561 U.S. 593, 602 (2010); KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 426-27 (2007); Intellectual Ventures I LLC v. Capital One Fin. Corp., 850 F.3d 1332, 1338 (Fed. Cir. 2017); Enfish, LLC v. Microsoft Corp., 822 F.3d 1327, 1336-39 (Fed. Cir. 2016); OIP Techs., Inc. v. Amazon.com, Inc., 788 F.3d 1359, 1362 (Fed. Cir. 2015); and Content Extraction and Transmission LLC v. Wells Fargo Bank, N.A., 776 F.3d 1343, 1349 (Fed. Cir. 2014).

Based on my professional judgment, I believe this appeal requires an answer to one or more precedent-setting questions of exceptional importance:

- 1. Is the threshold inquiry of patent eligibility under 35 U.S.C. § 101 a question of law without underlying factual issues that might prevent summary judgment?
- 2. Is the appropriate inquiry under *Alice*'s step 2 whether the claims transform an abstract idea into a patent-eligible application, or merely "whether the invention describes well-understood, routine, and conventional activities"?

3. Is a statement in a patent specification reciting that the invention is new and improves upon the prior art enough to create a genuine issue of material fact that precludes summary judgment as to patent eligibility under 35 U.S.C. § 101?

/s/ Allyson N. Ho

ATTORNEY OF RECORD FOR HP INC. FKA HEWLETT-PACKARD COMPANY

INTRODUCTION

Under the panel decision in this case, the crucial, threshold determination of patent eligibility under Section 101 is predominantly a question of fact. That result is inconsistent with the Supreme Court's decisions in *Bilski*, *Mayo*, and *Alice*, with this Court's own precedent, and with the need to resolve issues of patent eligibility as a question of law early in the litigation process to avoid unnecessary, costly, and protracted litigation. The panel decision deviated from this precedent by reversing summary judgment based on a factual "issue" created by a statement in the specification of the patent-in-suit that aspects of the invention were novel. Op. 12-13. That conflict implicates several exceedingly important, frequently recurring issues of patent law that warrant rehearing *en banc*.

The panel reached its erroneous decision by modifying the *Alice* step 2 test and announcing a new test: "whether the invention describes well-understood, routine, and conventional activities." Op. 15. That approach cannot be squared with *Alice* and *Mayo*, which instruct courts to ask instead whether the limitations "transform a patent-ineligible abstract idea into a patent-eligible invention." *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2351 (2014); *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 77 (2012). The panel's test is narrower than the Supreme Court's test, and allows for new abstract ideas or newly discovered laws of nature to be found patent-eligible. *Every* issued patent

presumably claims to have invented something novel. Under the panel decision, that is now enough to defeat summary judgment in virtually every case going forward. Indeed, under the panel decision, the claims ruled patent-ineligible in *Mayo* and *Alice* would have survived summary judgment and proceeded to litigation. That cannot be right.

What is more, the conflict created by the panel decision has serious, practical consequences that are already being felt across the nation, as district courts, relying on the panel decision, are denying summary judgment where it previously would have been granted. Because district courts have issued hundreds of decisions deciding patent eligibility on summary judgment since *Alice*, the potential impact of the panel decision on the patent prosecution and litigation landscape can hardly be overstated—as commentators, academics, and practitioners have noted. The Court should grant the petition, resolve the conflict and uncertainty created by the panel decision, and restore the proper role of the Section 101 analysis in securing the efficient determination of patent eligibility.

STATEMENT OF RELEVANT FACTS

This case involves U.S. Patent No. 7,447,713, which is directed solely to data manipulation—*i.e.*, breaking a file into components and associating identical components across several files so that changes to one component affect multiple files. For example, the specification explains that the patented invention allows for a company to insert a new corporate logo in a database once, instead of having to replace the logo on each of its documents individually. Appx60, '713 Patent, 2:4-8.

To implement this abstract idea, the patent does not rely on unconventional computing components. Nor do the claims recite any specific programming, tailored software, or meaningful guidance.

Claim 1, for example, simply involves a generic "parser," which is merely "a program that dissects and converts source code into object code." Appx47. The claim requires "parsing the item into a plurality of multi-part object structures." Appx83, '713 Patent, claim 1. And dependent claim 4 likewise simply recites "storing a reconciled object structure in the archive without substantial redundancy"—more abstract data manipulation. Appx83, '713 Patent, claim 4; Appx1317. The absence of any inventive software components is unsurprising, given that the record does not disclose that the named inventor has any computer programming experience (or that any programmer has ever implemented the patent).

At summary judgment, the district court held that under *Alice*'s step 1, the asserted claims were directed to abstract ideas, and under step 2, the claims did not "offe[r] a specific, concrete contribution to the technology of digital archiving." Appx24. Although "rife with technical terms," the claims "recite the claimed methods at a relatively high level of generality." Appx23. "They neither disclose a specific algorithm instructing how the methods are to be implemented nor require the use of any particular computer hardware, software, or 'parser.'" Appx23-24. The district court treated claim 1 as representative because Berkheimer failed to develop arguments uniquely related to the dependent claims. Appx14 & n.6.

The panel reversed in part. Op. 17. It relied on dicta from a prior opinion (which, in turn, relied on pre-*Alice* precedent) to vacate summary judgment on the dependent claims. Op. 12. The panel recognized that the claims were directed to an abstract idea, then noted "[t]he § 101 inquiry may contain underlying factual issues." Op. 12. The panel found an inventive concept in the specification's recitation that the patent improved upon the prior art by "pars[ing] data in a purportedly unconventional manner." Op. 15. The panel then found that dependent claims 4-7 contained limitations directed to "the arguably unconventional concept described in the specification." Op. 16.

ARGUMENT

I. The Panel Decision Conflicts With The Precedent Of The Supreme Court And This Court On An Exceedingly Important, Recurrent Issue Of Patent Law—Whether The § 101 Inquiry Is A Question Of Law Without Underlying Factual Issues That Might Prevent Summary Judgment.

Until the panel decision in this case, "[p]atent eligibility under § 101 [wa]s an issue of law" post-Alice. Intellectual Ventures I LLC v. Capital One Fin. Corp., 850 F.3d 1332, 1338 (Fed. Cir. 2017); see also OIP Techs., Inc. v. Amazon.com, Inc., 788 F.3d 1359, 1362 (Fed. Cir. 2015). Indeed, "[t]he § 101 patent-eligibility inquiry is [] a threshold test." Bilski v. Kappos, 561 U.S. 593, 602 (2010); Return Mail, Inc. v. U.S. Postal Serv., 868 F.3d 1350, 1370 (Fed. Cir. 2017). As a threshold issue, it was typically decided on summary judgement or even sooner in a patent lawsuit. See, e.g., Intellectual Ventures, 850 F.3d at 1342 (affirming ineligibility on summary judgement); Content Extraction and Transmission LLC v. Wells Fargo Bank, N.A., 776 F.3d 1343, 1349 (Fed. Cir. 2014) (same on motion to dismiss).

The panel decision sharply deviated from this precedent. And less than a week after the panel issued its decision, another panel—which included two members of the panel in the instant case—issued a fractured decision reversing the grant of a Rule 12(b)(6) motion "in the face of factual allegations, . . . that, if accepted as true, established that the claimed combination contains inventive concepts and improves the workings of the computer." *Aatrix Software, Inc. v. Green Shades Software, Inc.*, No. 2017-1452, 2018 WL 843288, at *2 (Fed. Cir. Feb. 14, 2018).

Judge Reyna dissented in that case, accusing the majority of "shift[ing] the character of the § 101 inquiry from a legal question to a predominately factual inquiry." *Id.* at *6. He criticized "the majority opinion [for] attempt[ing] to shoehorn a significant factual component into the *Alice* § 101 analysis" *Id.* at *6-7. As Judge Reyna explained, "[o]ur precedent is clear that the § 101 inquiry is a legal question" and "patent ineligibility under § 101 is a question of law" *Id.*

That conclusion is compelled not only by this Court's own precedent, but also by the Supreme Court's decisions in *Bilski*, *Mayo*, and *Alice*. Those decisions make clear that the "§ 101 subject matter eligibility is a 'threshold test' that typically precedes the novelty or obviousness inquiry" and is determined by focusing on the claims. *Return Mail*, 868 F.3d at 1370 (quoting *Bilski*, 561 U.S. at 602); *Alice*, 134 S. Ct. at 2355; *Mayo*, 566 U.S. at 75. Thus, until the panel decision, this Court followed the Supreme Court's instructions in routinely resolving patent eligibility post-*Alice* as a threshold legal question based on the claims. *See*, *e.g.*, *Intellectual Ventures*, 850 F.3d at 1341 (relying on the claims in conducting the *Alice* analysis); *Content Extraction*, 776 F.3d at 1349 (agreeing that a Section 101 analysis could be conducted at the pleading stage by construing the terms in the light most favorable

to the non-movant); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336-39 (Fed. Cir. 2016) (performing the Section 101 analysis based on the claims).¹

Whatever doubt or confusion there may have been in this Court's precedents pre-Alice, since then this Court has consistently treated the Section 101 inquiry as a threshold legal question resolved by reference to the claims, not a predominately factual one that "opens the door in both steps of the Alice inquiry for the introduction of an inexhaustible array of extrinsic evidence, such as prior art, publications, other patents, and expert opinion." Aatrix, 2018 WL 843288, at *7 (Reyna, J., dissenting). The panel's departure from this precedent creates a serious conflict that warrants resolution by the full Court.

II. The Panel Decision Conflicts With The Supreme Court's And This Court's Framework For *Alice*'s Step 2.

The panel determined that a material fact issue existed only because the panel asked the wrong question. It asked "whether the invention describes well-understood, routine, and conventional activities." Op. 15. Under *Alice*'s step two,

¹ The panel relied on this Court's decision in *Mortgage Grader, Inc. v. First Choice Loan Services, Inc.* for the proposition that the Section 101 inquiry "may contain underlying factual issues"—but that language was dicta, as *Mortgage Grader* ultimately held there were no underlying factual issues. *See* 811 F.3d 1314, 1325 (2016) (emphasis in original). *Mortgage Grader*, in turn, relied solely on *Accenture Global Services, GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1341 (Fed. Cir. 2013), which is a pre-*Alice* case that itself relies on *Ultramercial, Inc. v. Hulu, LLC*, 722 F.3d 1335 (Fed. Cir. 2013), which has since been vacated by the Supreme Court. *See WildTangent, Inc. v. Ultramercial, LLC*, 134 S. Ct. 2870 (2014). The panel's reliance on *Mortgage Grader*'s dicta was thus misplaced.

however, the correct inquiry is whether the claims "transform a patent-ineligible abstract idea into a patent-eligible invention." *Alice*, 134 S. Ct. at 2358 (internal citation omitted). The difference is significant. A claim that merely applies a new abstract idea (or a newly discovered law of nature) might not "describ[e] well-understood, routine, and conventional activities." Under the panel's test, such a claim would be patent eligible.

But the Supreme Court held in Mayo that the novelty of an abstract idea (or of a law of nature) cannot by itself establish patent eligibility. See, e.g., Mayo, 566 U.S. at 83 ("[S]imply appending conventional steps, specified at a high level of generality, to laws of nature, natural phenomena, and abstract ideas cannot make those laws, phenomena, and ideas patentable."). And this Court has held that "under the *Mayo/Alice* framework, a claim directed to a newly discovered [abstract idea] ... cannot rely on the novelty of that [abstract idea] for the inventive concept necessary for patent eligibility[.]" Genetic Techs. Ltd. v. Merial LLC, 818 F.3d 1369, 1376 (Fed. Cir. 2016). The claims must provide an inventive concept "apart from the [abstract ideas] themselves." Id.; see also Bascom Glob. Internet Servs., Inc. v. AT&T Mobility LLC, 827 F.3d 1341, 1349 (Fed. Cir. 2016) ("An inventive concept that transforms the abstract idea into a patent-eligible invention must be significantly more than the abstract idea itself, and cannot simply be an instruction to implement or apply the abstract idea on a computer").

Under the panel decision, virtually any patent owner will be able to retain an expert to testify to some "inventive concept" captured by a patent or to testify that the claim limitations, although known and disclosed in the prior art, were not "routine and conventional," thereby creating material issues of fact, even if the claim merely describes an abstract idea and the words "apply it." *Cf. Mayo*, 566 U.S. at 72 ("[T]o transform an unpatentable law of nature into a patent-eligible application of such a law, one must do more than simply state the law of nature while adding the words 'apply it."").

Thus, as commentators have noted, if the panel decision is permitted to stand, "[c]ases could turn into a battle of experts, with the patent owner's side arguing that its invention was a cutting-edge advance that pushed the envelope in the field, and the accused infringer pressing the case that the patent added nothing to what came before." Ryan Davis, *Getting Juries To Ax Patents Under Alice May Be Hard Sell*, IP Law360, https://www.law360.com/articles/1017998/getting-juries-to-ax-patents-under-alice-may-be-hard-sell (March 6, 2018).

Another industry publication described the case as "an important decision that is certainly going to shift the pendulum back' in favor of patent owners" in that "[a]ny attorney worth his or her salt can make a genuine issue of material fact." Ryan Davis, *Quick* Alice *Wins May Be Tougher After Fed. Circ. Ruling*, IP LAW360, https://www.law360.com/ip/articles/1011140/quick-alice-wins-may-be-tougher-

after-fed-circ-ruling (Feb. 13, 2018). Rehearing *en banc* is warranted to confirm the appropriate inquiry under *Alice*'s step 2 as well.

III. The Panel Decision Conflicts With The Precedent Of The Supreme Court And This Court By Allowing Statements From The Specification To Create Material Fact Issues.

Under the panel's analysis, a fact issue will arise in *any* case where the *specification* recites that the claims do not describe "well-understood, routine, and conventional activities." Op. 15. That means a fact issue will arise in virtually *every* case, because for a patent to issue in the first place, every claim should at least allegedly recite something new. *See*, *e.g.*, 37 CFR § 1.71(b) (2015) ("The specification must set forth the precise invention for which a patent is solicited, in such manner as to distinguish it from other inventions and from what is old."); MANUAL OF PATENT EXAMINING PROCEDURE § 608.01(b) (9th ed., 2015) ("The content of a patent abstract should . . . [identify] that which is new.").

The Supreme Court, however, has sternly warned against making patent eligibility turn on "the draftsman's art," *Mayo*, 566 U.S. at 72, and instructed courts to resolve step 2 of *Alice* by "examin[ing] the elements *of the claim.*" *Alice*, 134 S. Ct. at 2357 (emphasis added, quoting *Mayo*, 566 U.S. at 72). The panel decision does not adhere to that teaching.

Indeed, under the panel decision, the claims held ineligible by the Supreme Court in *Alice* would survive summary judgment: The specification of one of the

patents-at-issue in *Alice* alleged that "[t]here are disadvantages or limitations associated with such available economic risk management mechanisms. Particularly, they provide, at best, only indirect approaches to dealing with the risk management needs." U.S. Pat. No. 5,970,479 at 2:33-36. It explains, "[t]he present invention . . . provides an automated infrastructure to which parties have access without restrictions relating to nationality or residential requirements. This allows the parties to participate directly without requiring an intermediary." U.S. Pat. No. 5,970,479 at 4:8-12.

The same is true for the claims in *Mayo*, where the specification of one of the patents-in-suit explains that "there exists a need to develop methods to optimize the dose of 6-mercaptopurine drugs and assess biotransformation in individual patients to optimize the therapeutic efficacy of 6-mercaptopurine drugs while minimizing toxic side effects. The present invention satisfies this need and provides related advantages as well." U.S. Pat. No. 6,355,623 at 2:8-13.

Thus, under the panel decision, the same claims held patent ineligible in *Alice* and *Mayo* would have survived summary judgment and proceeded to costly, protracted litigation. That cannot be right.

The panel decision is also inconsistent with the Supreme Court's rule that an expert's conclusory affidavit cannot preclude summary judgment in the obviousness context. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 426-27 (2007). Courts of

appeals around the country have consistently applied this rule outside the patent context when considering the propriety of summary judgment. *E.g.*, *Matthiesen v. Banc One Mortg. Corp.*, 173 F.3d 1242, 1247 (10th Cir. 1999) ("[T]his is nothing more than an unsupported and conclusory statement and courts in the Tenth Circuit have held that such statements, even from experts, are insufficient to defeat summary judgment"); *Orthopedic & Sports Injury Clinic v. Wang Labs., Inc.*, 922 F.2d 220, 224 (5th Cir. 1991) (expert's conclusory affidavit insufficient to defeat summary judgment motion); *Taylor v. List*, 880 F.2d 1040, 1044 (9th Cir. 1989) ("A summary judgment motion cannot be defeated by relying solely on conclusory allegations unsupported by factual data.").

It is nonsensical that in all other areas of the law, a qualified expert's unsupported opinions *cannot* raise a material fact question, while under the panel's approach, unsupported inventor statements in the specification *can* raise a material fact question in the Section 101 inquiry. The panel decision's patent-specific rule cannot stand. *See generally SCA Hygiene Products Aktiebolag v. First Quality Baby Products, LLC*, 137 S. Ct. 954, 964 (2017) ("Patent law is governed by the same common-law principles, methods of statutory interpretation, and procedural rules as other areas of civil litigation.").

Rehearing *en banc* is warranted to bring this Court's analysis back into line not only with the Supreme Court's decisions in *Alice* and *Mayo*, but also with other

courts of appeals' decisions throughout the country on the proper summary judgment standard.

IV. The Panel Decision Greatly Increases The Burden On Courts And Litigants.

By preventing resolution of patent eligibility as a threshold issue, the panel decision forces defendants accused of infringing ineligible patents to undergo costly and time-consuming litigation through trial before the patents are confirmed as ineligible. The panel decision will make patent litigation more complex, expensive, and lengthy—just the result *Alice* guards against by permitting a finding of patent ineligibility early in the litigation. *See I/P Engine, Inc. v. AOL Inc.*, 576 F. App'x 982, 996 (Fed. Cir. 2014) (Mayer, J., concurring) ("From a practical perspective, there are clear advantages to addressing Section 101's requirements at the outset of litigation. Patent eligibility issues can often be resolved without lengthy claim construction, and an early determination that the subject matter of asserted claims is patent ineligible can spare both litigants and courts years of needless litigation.").

The resulting uncertainty and delay benefits neither patent owners nor accused infringers and will greatly increase the burden on courts and litigants if the panel decision is permitted to stand. And these concerns are not theoretical, but real. Since the Supreme Court's decision in *Alice*, district courts have resolved hundreds of Section 101 issues early in the litigation process. Under the panel decision, however,

each of these cases would have required significantly more discovery, time, and attention from the court to resolve.

Although the panel attempted to allay these concerns, Op. 13, district courts are already relying on the panel decision to deny summary judgment—in one case, even cancelling the summary judgment hearing entirely after the panel decision issued. *See*, *e.g.*, *Vaporstream*, *Inc. v. Snap Inc.*, No. 2:17-CV-00220-MLH-KSX, 2018 WL 1116530, at *6 (C.D. Cal. Feb. 27, 2018) ("The Federal Circuit has explained that '[t]he question of whether a claim element or combination of elements is well-understood, routine and conventional to a skilled artisan in the relevant field is a question of fact.' Here, there is competing expert testimony as to that specific question of fact. Accordingly, summary judgment on this issue is inappropriate.") (internal citations omitted); *see also Sycamore IP Holdings LLC v. AT & T Corp.*, No. 2:16-CV-588-WCB, 2018 WL 936059, at *24 (E.D. Tex. Feb. 16, 2018) (citing the panel decision in denying motion for summary judgment).

* * *

The panel decision effected a sea change in this Court's jurisprudence that is already having serious, practical implications throughout the patent system—as numerous commentators have observed. One commentator, for example, described the decision as being "in substantial tension with prior treatment of eligibility analysis that has generally permitted resolution of the issue on the pleadings as a

pure question of law" and suggested that rehearing *en banc* is needed "to clarify the issues here." Dennis Crouch, *Patent Eligibility: Underlying Questions of Fact*, PATENTLYO, https://patentlyo.com/patent/2018/02/eligibility-underlying-questions. html (February 8, 2018). The issues presented by this petition are extraordinarily significant and frequently recurring ones that warrant the attention of the full Court. The Court should grant the petition, resolve the conflict and uncertainty created by the panel decision, and restore the proper role of the Section 101 analysis in securing the efficient determination of patent eligibility as a threshold issue in patent litigation.

CONCLUSION

For the foregoing reasons, the petition for rehearing *en banc* should be granted, and the district court's judgment should be affirmed.

Dated: March 12, 2018 Respectfully submitted,

MORGAN, LEWIS & BOCKIUS LLP

By: <u>/s/ Allyson N. Ho</u>

Allyson N. Ho
Morgan, Lewis & Bockius LLP
William R. Peterson
Thomas R. Davis

Dallas, TX 75201 Morgan, Lewis & Bockius LLP

T: 214.466.4000 1000 Louisiana St., Suite 4000 F: 214.466.4001 Houston, TX 77002

F: 214.466.4001 Houston, TX 77002 allyson.ho@morganlewis.com T: 713.890.5000 F: 713.890.5001

> david.levy@morganlewis.com william.peterson@morganlewis.com thomas.davis@morganlewis.com

Jason C. White
Nicholas A. Restauri
Morgan, Lewis & Bockius LLP
77 West Wacker Dr.
Chicago, IL 60601
T: 312.324.1000
F: 312.324.1001
jason.white@morganlewis.com
nicholas.restauri@morganlewis.com

Julie S. Goldemberg Morgan, Lewis & Bockius LLP 1701 Market St. Philadelphia, PA 19103 T: 215.963.5000 F: 215.963.5001 julie.goldemberg@morganlewis.com

Counsel for Appellee, HP Inc. FKA Hewlett-Packard Company

CERTIFICATE OF COMPLIANCE

This petition complies with the type-volume limitations of Fed. R. App. P.

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Dated: March 12, 2018

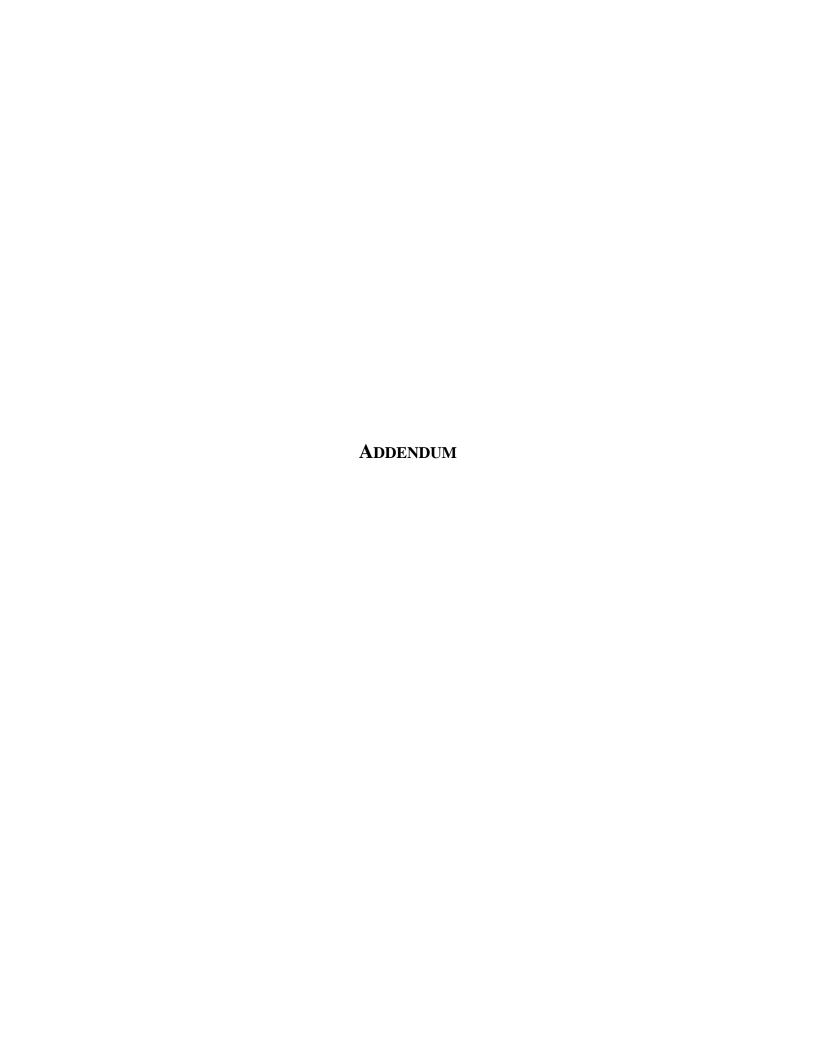
/s/ Allyson N. Ho

Allyson N. Ho

 $Counsel \ for \ Appellee \ HP \ Inc., \ FKA$

Hewlett-Packard Company

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United States Court of Appeals for the Federal Circuit

STEVEN E. BERKHEIMER,

Plaintiff-Appellant

 \mathbf{v} .

HP INC., FKA HEWLETT-PACKARD COMPANY,

Defendant-Appellee

2017-1437

Appeal from the United States District Court for the Northern District of Illinois in No. 1:12-cv-09023, Judge John Z. Lee.

Decided: February 8, 2018

James P. Hanrath, Much Shelist, PC, Chicago, IL, argued for plaintiff-appellant. Also represented by Michael John Femal; Paul Skiermont, Skiermont Derby LLP, Dallas, TX.

WILLIAM R. PETERSON, Morgan, Lewis & Bockius LLP, Houston, TX, argued for defendant-appellee. Also represented by Thomas R. Davis, David Jack Levy; Jason C. White, Nicholas A. Restauri, Chicago, IL.

Before MOORE, TARANTO, and STOLL, Circuit Judges.

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MOORE, Circuit Judge.

Steven E. Berkheimer appeals the United States District Court for the Northern District of Illinois' summary judgment holding claims 1–7 and 9 of U.S. Patent No. 7,447,713 ('713 patent) invalid as ineligible under 35 U.S.C. § 101. Mr. Berkheimer also appeals the district court's decision holding claims 10–19 of the '713 patent invalid for indefiniteness. For the reasons discussed below, we affirm-in-part, vacate-in-part, and remand for further proceedings.

BACKGROUND

The '713 patent relates to digitally processing and archiving files in a digital asset management system. '713 patent at 1:11–12. The system parses files into multiple objects and tags the objects to create relationships between them. Id. at 1:13-18, 16:26-36. These objects are analyzed and compared, either manually or automatically, to archived objects to determine whether variations exist based on predetermined standards and rules. *Id.* at 13:14–20, 16:37–51. This system eliminates redundant storage of common text and graphical elements, which improves system operating efficiency and reduces storage costs. Id. at 2:53-55, 16:52-54. The relationships between the objects within the archive allow a user to "carry out a one-to-many editing process of object-oriented data," in which a change to one object carries over to all archived documents containing the same object. *Id.* at 15:65–16:2, 16:52-60.

Mr. Berkheimer sued HP Inc. in the Northern District of Illinois, alleging infringement of claims 1–7 and 9–19 of the '713 patent. Following a *Markman* hearing, the district court concluded that the term "archive exhibits minimal redundancy" in claim 10 is indefinite and renders claim 10 and its dependents invalid. HP moved for summary judgment that claims 1–7 and 9 are patent ineligible under 35 U.S.C. § 101, and the district court

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granted the motion. Mr. Berkheimer appeals. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

DISCUSSION

I. Indefiniteness

We review indefiniteness determinations de novo except for necessary subsidiary fact findings, which we review for clear error. Cox Commc'ns v. Sprint Commc'n Co., 838 F.3d 1224, 1228 (Fed. Cir. 2016). 35 U.S.C. § 112, patent claims must "particularly point." out and distinctly claim[] the subject matter" regarded as the invention. A lack of definiteness renders the claims invalid. Nautilus, Inc. v. Biosig Instruments, Inc., 134 S. Ct. 2120, 2125 (2014). Claims, viewed in light of the specification and prosecution history, must "inform those skilled in the art about the scope of the invention with reasonable certainty." Id. at 2129; see Interval Licensing LLC v. AOL, Inc., 766 F.3d 1364, 1371 (Fed. Cir. 2014) ("The claims, when read in light of the specification and the prosecution history, must provide objective boundaries for those of skill in the art."). This standard "mandates clarity, while recognizing that absolute precision is unattainable." *Nautilus*, 134 S. Ct. at 2129. "Claim language employing terms of degree has long been found definite where it provided enough certainty to one of skill in the art when read in the context of the invention." Interval Licensing, 766 F.3d at 1370.

The district court analyzed the term "archive exhibits minimal redundancy" in claim 10 and determined that the intrinsic evidence "leaves a person skilled in the art with a highly subjective meaning of 'minimal redundancy." Berkheimer v. Hewlett-Packard Co., 2015 WL 4999954, at *9–10 (N.D. Ill. Aug. 21, 2015). It relied on the declaration of HP's expert, Dr. Schonfeld, to find that an ordinarily skilled artisan would not have known what the term "minimal redundancy" meant in claim 10. Id. at *10. We hold that the district court's subsidiary factual

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finding based on Dr. Schonfeld's declaration was not clearly erroneous and affirm its indefiniteness determination for claims 10–19.

We look first to the language of the claim to determine whether the meaning of "minimal redundancy" is reasonably clear. Claim 10 recites "a storage medium, and a set of executable instructions for establishing an archive of documents represented by linked object oriented elements stored in the medium, wherein the archive exhibits minimal redundancy with at least some elements linked to pluralities of the elements." Claims 11–19 depend from claim 10 and therefore include the same limitation. This claim language is not reasonably clear as to what level of redundancy in the archive is acceptable.

The specification uses inconsistent terminology to describe the level of redundancy that the system achieves. For example, it describes "minimiz[ing] redundant objects," '713 patent at 16:50–51, "eliminating redundancy," id. at 16:52, and "reducing redundancies," id. at 15:18–19. The only example included in the specification is an archive that exhibits no redundancy. '713 patent at 13:5-13. The claim language, however, does not require elimination of all redundancies from the archive. For example, the specification discloses providing users with "user interfaces and tools for examining and choosing the elimination of document and document element redun-*Id.* at 6:60–65 (emphasis added). Mr. Berkheimer acknowledges that "the invention attempts to minimize redundancy but may not in all cases achieve absolute [elimination of] redundancy." Appellant Br. at 64. The specification contains no point of comparison for skilled artisans to determine an objective boundary of "minimal" when the archive includes some redundancies. Sonix Tech. Co., Ltd. v. Publ'ns Int'l, Ltd., 844 F.3d 1370, 1379 (Fed. Cir. 2017) (holding that specific examples in the specification provided "points of compariCase: 17-1437 Document: 51-2 Page: 5 Filed: 02/08/2018

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son" that helped form an objective standard of the claim's scope).

The prosecution history does not add clarity. In response to an indefiniteness rejection during prosecution, Mr. Berkheimer explained that the claim "desires to eliminate redundancy" but includes the word "minimal" because "to eliminate all redundancy in the field of the claimed invention is not likely." J.A. 656. This does not explain how much redundancy is permitted.

In light of the lack of objective boundary or specific examples of what constitutes "minimal" in the claims, specification, and prosecution history, the district court properly considered and relied on extrinsic evidence. Relying on the specification's lack of explanation and specific examples of this term, HP's expert Dr. Schonfeld opined that the patent does not inform a skilled artisan of the meaning of "archive exhibits minimal redundancy" with reasonable certainty. Mr. Berkheimer did not provide the court with expert testimony of his own. While Dr. Schonfeld's explanation for his opinion was brief, it was not clear error for the district court to find that a skilled artisan would not have known the meaning of "minimal redundancy" with reasonable certainty.

Mr. Berkheimer's argument that "the archive" provides an objective baseline to measure what exhibits "minimal redundancy" misses the point. He is correct that it is "the archive" that must exhibit "minimal redundancy," but the issue is not what must exhibit minimal redundancy, but rather how much is minimal. Mr. Berkheimer's only arguments on this point are that terms of degree are not required to have an objective boundary and a contrary holding would invalidate a large swath of patents relying on terms of degree such as "minimal" or "substantial." Our case law is clear that the objective boundaries requirement applies to terms of degree. In Sonix, we held that the term "visually negligi-

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ble" had an objective baseline to interpret the claims. 844 F.3d at 1378. In *Interval Licensing*, we held that the phrase "unobtrusive manner" lacked objective boundaries. 766 F.3d at 1371. We do not hold that all terms of degree are indefinite. We only hold that the term "minimal redundancy" is indefinite in light of the evidence in this case.

Accordingly, we affirm the district court's determination that claims 10–19 are invalid as indefinite.

II. Patent Eligibility

In patent appeals, we apply the law of the regional circuit, here the Seventh Circuit, to issues not unique to patent law. AbbVie Deutschland GmbH & Co., KG v. Janssen Biotech, Inc., 759 F.3d 1285, 1295 (Fed. Cir. 2014). The Seventh Circuit reviews a grant of summary judgment de novo, drawing all reasonable inferences in the light most favorable to the non-movant. Arnett v. Webster, 658 F.3d 742, 757 (7th Cir. 2011). Summary judgment is appropriate when "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). Patent eligibility under 35 U.S.C. § 101 is ultimately an issue of law we review de novo. Intellectual Ventures I LLC v. Capital One Fin. Corp., 850 F.3d 1332, 1338 (Fed. Cir. 2017). The patent eligibility inquiry may contain underlying issues of fact. Mortg. Grader, Inc. v. First Choice Loan Servs. Inc., 811 F.3d 1314, 1325 (Fed. Cir. 2016).

First, we address whether Mr. Berkheimer waived his ability to argue that the dependent claims are separately patent eligible. Courts may treat a claim as representative in certain situations, such as if the patentee does not present any meaningful argument for the distinctive significance of any claim limitations not found in the representative claim or if the parties agree to treat a claim as representative. *Elec. Power Grp., LLC v. Alstom*

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S.A., 830 F.3d 1350, 1352 (Fed. Cir. 2016); Intellectual Ventures I LLC v. Symantec Corp., 838 F.3d 1307, 1316 & n.9 (Fed. Cir. 2016). Because Mr. Berkheimer maintained that limitations included in dependent claims 4–7 bear on patent eligibility and never agreed to make claim 1 representative, we hold that arguments going specifically to claims 4–7 are properly preserved on appeal.

Mr. Berkheimer never agreed to make claim 1 repre-In his opposition brief to HP's motion for summary judgment, he argued that claim 1 is not representative of the limitations found in the dependent claims. J.A. 1280. In particular, he argued that limitations in claim 5 drawn to effecting a one-to-many change add inventive concepts. *Id.* Other portions of his brief below argued that reducing redundancy and enabling oneto-many editing are patent eligible concepts. J.A. 1278 ("The innovative aspects of the claims improve computerized digital asset and content management systems by enabling control of object and object relationship integrity, reducing redundancy, [and] linking objects to enable one to many editing Such improvements to computer functionality are precisely the kind of improvements that have been found patent eligible under *Alice*." (internal citations omitted)). Because claim 1 does not recite reducing redundancy or enabling one-to-many editing, we interpret these arguments as applying to dependent claims 4–7, which include these limitations. Mr. Berkheimer makes these same arguments to us on appeal.

The district court stated that it was treating claim 1 as representative because claim 1 is the only asserted independent claim and Mr. Berkheimer focused "all of his

primary arguments" on claim 1.1 Berkheimer v. Hewlett-Packard Co., 224 F. Supp. 3d 635, 643 n.6 (N.D. Ill. Dec. 12, 2016). Neither rationale justifies treating claim 1 as representative. A claim is not representative simply an independent claim. because it isMr. Berkheimer advanced meaningful arguments regarding limitations found only in the dependent claims. In acknowledging that Mr. Berkheimer focused his "primary arguments" on claim 1, the district court necessarily recognized that he raised arguments regarding the dependent claims. Thus, Mr. Berkheimer's separate arguments regarding claims 4–7 are not waived.

Turning to the merits of the § 101 inquiry, anyone who "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. 35 U.S.C. § 101. Because patent protection does not extend to claims that monopolize the "building blocks of human ingenuity," claims directed to laws of nature, natural phenomena, and abstract ideas are not patent eligible. Alice Corp. Pty. Ltd. v. CLS Bank Int'l, 134 S. Ct. 2347, 2354 (2014). The Supreme Court instructs courts to distinguish between claims that claim patent ineligible subject matter and those that "integrate the building blocks into something more." Id. "First, we determine whether the claims at issue are directed to" a patentineligible concept. Id. at 2355. If so, "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 patenteligible application." Id. (quoting Mayo Collaborative

¹ Though the district court stated it was treating claim 1 as representative, it separately analyzed the dependent claims.

Servs. v. Prometheus Labs., Inc., 566 U.S. 66, 78–79 (2012)).

Independent claim 1 recites:

1. A method of archiving an item in a computer processing system comprising:

presenting the item to a parser;

parsing the item into a plurality of multipart object structures wherein portions of the structures have searchable information tags associated therewith;

evaluating the object structures in accordance with object structures previously stored in an archive;

presenting an evaluated object structure for manual reconciliation at least where there is a predetermined variance between the object and at least one of a predetermined standard and a user defined rule.

The district court construed "parser" as "a program that dissects and converts source code into object code" and "parsing" as using such a program. J.A. 47. It construed "evaluating the object structures in accordance with object structures previously stored in an archive" as "analyzing the plurality of multi-part object structures obtained by parsing and comparing it with object structures previously stored in the archive to determine if there is variance between the object and at least one of a predetermined standard and a user defined rule." *Id.* These constructions are not challenged on appeal.

At *Alice* step one, we must "determine whether the claims at issue are directed to a patent-ineligible concept." *Alice*, 134 S. Ct. at 2355. The district court held claim 1 is directed to the abstract idea of "using a generic computer to collect, organize, compare, and present data for recon-

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ciliation prior to archiving." *Berkheimer*, 224 F. Supp. 3d at 644. Mr. Berkheimer argues the district court characterized the invention too broadly and simplistically, ignoring the core features of the claims. We hold that claims 1–3 and 9 are directed to the abstract idea of parsing and comparing data; claim 4 is directed to the abstract idea of parsing, comparing, and storing data; and claims 5–7 are directed to the abstract idea of parsing, comparing, storing, and editing data.

These claims are similar to claims we held directed to an abstract idea in prior cases. See, e.g., In re TLI Commc'ns LLC Patent Litig., 823 F.3d 607, 613 (Fed. Cir. 2016); Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n, 776 F.3d 1343, 1347 (Fed. Cir. 2014). In Content Extraction, the claims at issue generally recited "a method of 1) extracting data from hard copy documents using an automated digitizing unit such as a scanner, 2) recognizing specific information from the extracted data, and 3) storing that information in a memory." 776 F.3d at 1345. We held those claims were directed to the abstract idea of "1) collecting data, 2) recognizing certain data within the collected data set, and 3) storing that recognized data in a memory." *Id.* at 1347. Similarly, in TLI, the claims recited a "method for recording and administering digital images," which involved "recording images using a digital pick up unit in a telephone unit," digitally storing them, transmitting the digital images and classification information to a server, and storing the digital images in the server based on the classification information. 823 F.3d at 610. We held the claim at issue used only conventional computer components to implement the abstract idea of "classifying and storing digital images in an organized manner." Id. at Here, the specification explains that the parser "determines and extracts components of the standardized document or item representation" and reassembles the components "into composite output files." '713 patent at

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3:61–4:17. Even though the parser separates the documents or items into smaller components than the claims determined to be abstract in *Content Extraction* and *TLI*, the concept is the same. The parsing and comparing of claims 1–3 and 9 are similar to the collecting and recognizing of *Content Extraction*, 776 F.3d at 1347, and the classifying in an organized manner of *TLI*, 823 F.3d at 613. Claim 4 adds the abstract concept of storing, and claims 5–7 add the abstract concept of editing.

Mr. Berkheimer argues that the claims are not abstract because the "parsing" limitation roots the claims in technology and transforms the data structure from source code to object code. Limiting the invention to a technological environment does "not make an abstract concept any less abstract under step one." Intellectual Ventures I, 850 F.3d at 1340. That the parser transforms data from source to object code does not demonstrate nonabstractness without evidence that this transformation improves computer functionality in some way. See Visual Memory LLC v. NVIDIA Corp., 867 F.3d 1253, 1258 (Fed. Cir. 2017) ("[W]e must ... ask whether the claims are directed to an improvement to computer functionality versus being directed to an abstract idea." (internal quotations omitted)); Enfish, LLC v. Microsoft Corp., 822 F.3d 1327, 1335–36 (Fed. Cir. 2016) ("[T]he first step in the *Alice* inquiry in this case asks whether the focus of the claims [was] 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."). No such evidence exists on Indeed, Mr. Berkheimer admitted that this record. parsers had existed for years prior to his patent. J.A. 1106. Because the claims are directed to an abstract idea, we proceed to the second step of the *Alice* inquiry.

At step two, 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." Alice, 134 S. Ct. at 2355 (quoting Mayo, 566 U.S. at 78–79). The second step of the Alice test is satisfied when the claim limitations "involve more than performance of 'well-understood, routine, [and] conventional activities previously known to the industry." Content Extraction, 776 F.3d at 1347–48 (quoting Alice, 134 S. Ct. at 2359).

The question of whether a claim element or combination of elements is well-understood, routine and conventional to a skilled artisan in the relevant field is a question of fact. Any fact, such as this one, that is pertinent to the invalidity conclusion must be proven by clear and convincing evidence. See Microsoft Corp. v. i4i Ltd. P'ship, 564 U.S. 91, 95 (2011). Like indefiniteness, enablement, or obviousness, whether a claim recites patent eligible subject matter is a question of law which may contain underlying facts. Akzo Nobel Coatings, Inc. v. Dow Chem. Co., 811 F.3d 1334, 1343 (Fed. Cir. 2016) ("Indefiniteness is a question of law that we review de novo, [] subject to a determination of underlying facts."); Alcon Research Ltd. v. Barr Labs., Inc., 745 F.3d 1180, 1188 (Fed. Cir. 2014) ("Whether a claim satisfies the enablement requirement of 35 U.S.C. § 112 is a question of law that we review without deference, although the determination may be based on underlying factual findings, which we review for clear error."); Apple Inc. v. Samsung Elecs. Co., Ltd., 839 F.3d 1034, 1047 (Fed. Cir. 2016) (en banc) ("Obviousness is a question of law based on underlying facts."). We have previously stated that "[t]he § 101 inquiry 'may contain underlying factual issues." Mortg. Grader, 811 F.3d at 1325 (emphasis in original) (quoting Accenture Global Servs., GmbH v. Guidewire Software, Inc., 728 F.3d 1336, 1341 (Fed. Cir. 2013)). And the Supreme Court recognized that in making the § 101 determination, the inquiry "might sometimes overlap" with other fact-intensive inquiries like novelty under § 102. *Mayo*, 566 U.S. at 90.

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matter of law.

As our cases demonstrate, not every § 101 determination contains genuine disputes over the underlying facts material to the § 101 inquiry. See, e.g., Content Extraction, 776 F.3d at 1349 (patent owner conceded the argued inventive concept "was a routine function of scanning technology at the time the claims were filed"); Intellectual Ventures I LLC v. Capital One Bank (USA), 792 F.3d 1363, 1370 (Fed. Cir. 2015) (patent owner argued an "interactive interface" is "a specific application of the abstract idea that provides an inventive concept" and did not dispute that the computer interface was generic). Whether a claim recites patent eligible subject matter is a question of law which may contain disputes over underlying facts. Patent eligibility has in many cases been resolved on motions to dismiss or summary judgment. Nothing in this decision should be viewed as casting doubt on the propriety of those cases. When there is no genuine issue of material fact regarding whether the

claim element or claimed combination is well-understood, routine, conventional to a skilled artisan in the relevant field, this issue can be decided on summary judgment as a

Here, the district court concluded that the claims do not contain an inventive concept under *Alice* step two because they describe "steps that employ only 'well-understood, routine, and conventional' computer functions" and are claimed "at a relatively high level of generality." *Berkheimer*, 224 F. Supp. 3d at 647–48 (quoting *Content Extraction*, 776 F.3d at 1348). Mr. Berkheimer argues portions of the specification referring to reducing redundancy and enabling one-to-many editing contradict the district court's finding that the claims describe well-understood, routine, and conventional activities. He argues, both below and on appeal, that summary judgment is improper because whether the claimed invention is well-understood, routine, and conventional is an underlying fact question for which HP offered no evidence.

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While patent eligibility is ultimately a question of law, the district court erred in concluding there are no underlying factual questions to the § 101 inquiry. *Id.* at 642. Whether something is well-understood, routine, and conventional to a skilled artisan at the time of the patent is a factual determination. Whether a particular technology is well-understood, routine, and conventional goes beyond what was simply known in the prior art. The mere fact that something is disclosed in a piece of prior art, for example, does not mean it was well-understood, routine, and conventional.

Mr. Berkheimer argues that the claimed combination improves computer functionality through the elimination of redundancy and the one-to-many editing feature, which provides inventive concepts. The specification of the '713 patent discusses the state of the art at the time the patent was filed and the purported improvements of the invention. Conventional digital asset management systems at the time included "numerous documents containing multiple instances of redundant document elements." '713 patent at 1:24–27. This redundancy in conventional systems led to "inefficiencies and increased costs." *Id.* at 2:22–26. The specification explains that the claimed improvement increases efficiency and computer functionality over the prior art systems:

By eliminating redundancy in the archive 14, system operating efficiency will be improved, storage costs will be reduced and a one-to-many editing process can be implemented wherein a singular linked object, common to many documents or files, can be edited once and have the consequence of the editing process propagate through all of the linked documents and files. The one-to-many editing capability substantially reduces effort needed to up-date files which represent packages or packaging manuals or the like as would be understood by those of skill in the art.

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Id. at 16:52-60.

The specification describes an inventive feature that stores parsed data in a purportedly unconventional man-This eliminates redundancies, improves system ner. efficiency, reduces storage requirements, and enables a single edit to a stored object to propagate throughout all documents linked to that object. Id. The improvements in the specification, to the extent they are captured in the claims, create a factual dispute regarding whether the invention describes well-understood, routine, and conventional activities, see Content Extraction, 776 F.3d at 1347– 48, so we must analyze the asserted claims and determine whether they capture these improvements, 134 S. Ct. at 2357.

The parties dispute whether these improvements to computer functionality are captured in the claims. See Appellant Br. at 42; Appellee Br. at 39–40, 43–44. We conclude that claim 1 does not recite an inventive concept sufficient to transform the abstract idea into a patent eligible application. Claim 1 recites a method of archiving including parsing data, analyzing and comparing the data to previously stored data, and presenting the data for reconciliation when there is a variance. It does not include limitations which incorporate eliminating redundancy of stored object structures or effecting a one-tomany change of linked documents within an archive. It does not even require the storage of data after it is presented for manual reconciliation. Thus, it does not recite any of the purportedly unconventional activities disclosed in the specification. Mr. Berkheimer does not advance any separate arguments regarding claims 2-3 and 9. Even considering these claims separately, they recite patent ineligible subject matter for the same reason.

Mr. Berkheimer argues that claim 1 recites an improvement to computer functionality and digital asset management systems. Mr. Berkheimer, however, admit-

ted that parsers and the functions they perform existed for years before his patent. J.A. 1106. These conventional limitations of claim 1, combined with limitations of analyzing and comparing data and reconciling differences between the data, "fail to transform th[e] abstract idea into a patent-eligible invention." *Alice*, 134 S. Ct. at 1357. The limitations amount to no more than performing the abstract idea of parsing and comparing data with conventional computer components. Because claims 1–3 and 9 do not capture the purportedly inventive concepts, we hold that claims 1–3 and 9 are ineligible.

Claims 4–7, in contrast, contain limitations directed to the arguably unconventional inventive concept described in the specification. Claim 4 recites "storing a reconciled object structure in the archive without substantial redundancy." The specification states that storing object structures in the archive without substantial redundancy improves system operating efficiency and reduces storage costs. '713 patent at 16:52–58. It also states that known asset management systems did not archive documents in this manner. Id. at 2:22-26. Claim 5 depends on claim 4 and further recites "selectively editing an object structure, linked to other structures to thereby effect a one-to-many change in a plurality of archived items." The specification states one-to-many editing substantially reduces effort needed to update files because a single edit can update every document in the archive linked to that object structure. *Id* at 16:58–60. This one-to-many functionality is more than "editing data in a straightforward copy-and-paste fashion," as characterized by the district court. Berkheimer, 224 F. Supp. 3d According to the specification, conventional digital asset management systems cannot perform one-tomany editing because they store documents with numerous instances of redundant elements, rather than eliminate redundancies through the storage of linked object structures. '713 patent at 1:22–55, 4:4–9, 16:52–60.

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Claims 6–7 depend from claim 5 and accordingly contain the same limitations. These claims recite a specific method of archiving that, according to the specification, provides benefits that improve computer functionality.

HP argues that redundancy and efficiency are considerations in any archival system, including paper-based systems. The district court agreed. *Berkheimer*, 224 F. Supp. 3d at 647. At this stage of the case, however, there is at least a genuine issue of material fact in light of the specification regarding whether claims 4–7 archive documents in an inventive manner that improves these aspects of the disclosed archival system. Whether claims 4–7 perform well-understood, routine, and conventional activities to a skilled artisan is a genuine issue of material fact making summary judgment inappropriate with respect to these claims.

We do not decide today that claims 4–7 are patent eligible under § 101. We only decide that on this record summary judgment was improper, given the fact questions created by the specification's disclosure.

CONCLUSION

For the foregoing reasons, we affirm the district court's decision that claims 10–19 of the '713 patent are invalid as indefinite and its grant of summary judgment that claims 1–3 and 9 of the '713 patent are ineligible under 35 U.S.C. § 101. We vacate the district court's grant of summary judgment that claims 4–7 are ineligible under § 101 and remand for further proceedings.

AFFIRMED-IN-PART, VACATED-IN-PART, AND REMANDED

Costs

No costs.

PROOF OF SERVICE

I hereby certify that on March 12, 2018, I electronically transmitted this Appellee HP Inc.'s Petition for Rehearing *En Banc* to the Clerk of the Court using the Court's ECF system. I further certify that counsel of record for Appellant are being served with a copy of this Petition by electronic means via the Court's ECF system, or by email, as follows:

Counsel for Appellant

James P. Hanrath
Michael John Femal
MUCH SHELIST

191 North Wacker Drive, Suite 1800
Chicago, IL 60606
jhanrath@muchshelist.com
mfemal@muchshelist.com

Paul Skiermont SKIERMONT DERBY LLP 220 Ross Avenue, Suite 4800W Dallas, TX 75201 pskiermont@skiermontderby.com

/s/ Allyson N. Ho
Allyson N. Ho
Counsel for Appellee HP Inc., FKA
Hewlett-Packard Company