

No. 18-415

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**In the Supreme Court of the United States**

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HP INC., FKA HEWLETT-PACKARD COMPANY,  
PETITIONER

*v.*

STEVEN E. BERKHEIMER

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*ON PETITION FOR A WRIT OF CERTIORARI  
TO THE UNITED STATES COURT OF APPEALS  
FOR THE FEDERAL CIRCUIT*

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**BRIEF FOR THE UNITED STATES AS AMICUS CURIAE**

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### **QUESTION PRESENTED**

Section 101 of the Patent Act provides that “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof,” is eligible for a patent. 35 U.S.C. 101. The question presented is as follows:

Whether patent-eligibility is a question of law for the court based on the scope of the claims or a question of fact for the jury based on the state of the art at the time of the patent.

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This brief is filed in response to the order of this Court inviting the Solicitor General to express the views of the United States. In the view of the United States, the petition for a writ of certiorari should be denied.

### **STATEMENT**

1. a. The Constitution authorizes Congress “[t]o promote the Progress” of “useful Arts, by securing for limited Times to \* \* \* Inventors the exclusive Right to their \* \* \* Discoveries.” U.S. Const. Art. 1, § 8, Cl. 8. Exercising that authority, Congress has directed that “[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 35 U.S.C. 101.

By “defin[ing] the subject matter that may be patented,” *Bilski v. Kappos*, 561 U.S. 593, 601 (2010), Section 101 confines patents to particular types of innovations. To obtain a patent, an inventor “must also satisfy” additional Patent Act requirements, “includ[ing] that the invention be novel, nonobvious, and fully and particularly described.” *Id.* at 602 (citing 35 U.S.C. 102-103, 112 (2006)). Those requirements complement Section 101 but serve different functions. The novelty requirement, for example, ensures that a patent applicant cannot obtain exclusive rights for another’s previous discovery.

An invention thus might satisfy the Act’s other requirements but not Section 101, or vice versa. See *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 483 (1974) (“[N]o patent is available for a discovery, however useful, novel, and nonobvious, unless it falls within one of the express categories of patentable subject matter.”). For example, a new way of structuring real-estate transactions might be novel and nonobvious, but it would not be patent-eligible under Section 101 because it would not be the *type* of innovation that has traditionally been viewed as falling within the “useful Arts.” Conversely, an application for a patent on Alexander Graham Bell’s telephone would satisfy Section 101, but it would fail today for lack of novelty.

b. Although Section 101’s text is “expansive,” *Diamond v. Chakrabarty*, 447 U.S. 303, 308 (1980), it is not limitless, *ibid.* The Court has long recognized, for example, that “phenomena of nature” are not patent-eligible if materially unaltered by humankind. *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 130 (1948) (citing *Le Roy v. Tatham*, 55 U.S. (14 How.) 156, 175 (1853)). A “nonnaturally occurring manufacture or composition of

matter,” such as a newly created “micro-organism,” is patent-eligible, but “a new mineral discovered in the earth or a new plant found in the wild is not.” *Chakrabarty*, 447 U.S. at 308-309 (citation omitted). Newly discovered “manifestations of . . . nature,” such as Newton’s “law of gravity” or Einstein’s “law that  $E=mc^2$ ,” likewise are not patent-eligible. *Id.* at 309 (citation omitted).

Until 2010, the Court’s decisions recognizing that such discoveries are not patent-eligible were best understood as interpreting the specific terms (“process, machine, manufacture, [and] composition of matter,” 35 U.S.C. 101) contained in Section 101’s list of patent-eligible inventions, based in part on history and statutory context. See *Diamond v. Diehr*, 450 U.S. 175, 184 (1981) (“process”); *Corning v. Burden*, 56 U.S. (15 How.) 252, 267 (1854) (“machine”); *American Fruit Growers, Inc. v. Brogdex Co.*, 283 U.S. 1, 11 (1931) (“manufacture”); *Chakrabarty*, 447 U.S. at 308 (“composition of matter”). The terms “machine” and “manufacture” clearly refer to products constructed through human effort. And while the term “composition of matter” might be construed in isolation to encompass newly discovered naturally occurring organisms, the Court has long held that “patents cannot issue for the discovery of the phenomena of nature,” *Funk Bros.*, 333 U.S. at 130-131, and it has construed current Section 101 to carry forward that traditional understanding, see *Chakrabarty*, 447 U.S. at 308-310.

The Court likewise has interpreted “process” in Section 101 based on traditional usage of that term and its precursor (“art”) in the patent context. *Diehr*, 450 U.S. at 182-184 (citation omitted). It took as its touchstone “[i]ndustrial processes” of “the types which have historically been eligible to receive the protection of our patent

laws.” *Ibid.* That approach aligned with the placement of “process” (or “art”) alongside “machine,” “manufacture,” and “composition of matter.” See *The Telephone Cases*, 126 U.S. 1, 533-534 (1888); see also Antonin Scalia & Bryan A. Garner, *Reading Law: The Interpretation of Legal Texts* 196 (2012). It also avoided the “comical” result that Section 101 would encompass “[a] process for training a dog, a series of dance steps, [or] a method of shooting a basketball.” *Bilski*, 561 U.S. at 624 (Stevens, J., concurring in the judgment).

The Court’s recent decisions, however, have applied a different approach. In *Bilski*, the Court held that patent claims for a method of hedging financial risk in energy markets were not patent-eligible under Section 101. 561 U.S. at 601-604, 606-608, 609-613. But the Court did not ground that conclusion in traditional patent-law understandings of the term “process,” or in the Framers’ conception of the “useful Arts.” It stated instead that ““process”” and Section 101’s other terms should bear their general-purpose “dictionary definitions,” but that Section 101 is nevertheless limited by three “exceptions” that “are not required by the statutory text”: “laws of nature, physical phenomena, and abstract ideas.”” *Id.* at 601, 603 (citation omitted). The Court held that the method-of-hedging claims at issue were patent-ineligible “attempts to patent abstract ideas.” *Id.* at 609; see *id.* at 609-613.

In *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (2012), the Court applied *Bilski*’s new approach and held that “patent claims covering processes that help doctors who use thiopurine drugs to treat patients with autoimmune diseases determine whether a given dosage level is too low or too high” were patent-ineligible attempts to claim a natural law.

*Id.* at 72; see *id.* at 77-92. The Court stated that the claims “set forth laws of nature—namely, relationships between concentrations of certain metabolites in the blood and the likelihood that a dosage of [the] drug will prove ineffective or cause harm.” *Id.* at 77. It concluded that the claims did not “do significantly more than simply describe these natural relations,” but instead merely instructed practitioners “to engage in well-understood, routine, conventional activity previously engaged in by scientists who work in the field.” *Id.* at 77, 79. The Court contrasted those claims with “a typical patent on a new drug or a new way of using an existing drug,” which might “confine [its] reach to particular applications of those laws.” *Id.* at 87; see *Association for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589-596 (2013) (holding that DNA sequences isolated from human genome were patent-ineligible “product[s] of nature,” but that synthetically created DNA sequences not found in nature were patent-eligible).

The Court subsequently described *Mayo*’s approach as a two-step inquiry. First, a court determines whether a claim is “directed to” a “law[] of nature, natural phenomenon[on], [or] abstract idea[.]” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. 208, 217 (2014) (citation omitted). “If so,” the court then “ask[s], ‘what else is there in the claims,’” considering “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.” *Ibid.* (quoting *Mayo*, 566 U.S. at 78-79) (brackets omitted); see *id.* at 217-227 (applying that rubric to conclude that “a computer-implemented scheme for mitigating

‘settlement risk’ \* \* \* by using a third-party intermediary” was a patent-ineligible attempt to claim an abstract idea).

2. a. This case concerns claims that recite “methods for digitally processing and archiving files.” Pet. App. 22. Respondent (Berkheimer) is the named inventor on U.S. Patent No. 7,447,713, see Pet. Supp. App. 1, which calls for a software system that separates documents into elements (*e.g.*, a logo or a block of text), allows elements that are used in multiple documents to be stored only once, and allows revisions to a shared element to be reflected in every document that contains that element. Pet. App. 23; see *id.* at 2-3.

Berkheimer brought this infringement suit against petitioner (HP), ultimately alleging that HP’s enterprise document-automation software and platforms, such as HP EXSTREAM, infringed certain claims of Berkheimer’s patent. Pet. App. 23, 52. HP moved for summary judgment on the ground that those claims are patent-ineligible under 35 U.S.C. 101. Pet. App. 22.

b. After construing the claims in a *Markman* hearing, see *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996), the district court granted summary judgment for HP on the ground that the claims at issue were not patent-eligible under Section 101. Pet. App. 22-47. The court stated that “[w]hether a patent claim is invalid under § 101 is a question of law” that may be resolved either “on the pleadings or at the summary judgment stage.” *Id.* at 27.

Applying the framework set forth in this Court’s recent Section 101 decisions, the district court concluded at the first *Mayo/Alice* step that a representative claim in Berkheimer’s patent is directed to an “abstract idea”—namely, “collecting, organizing, comparing, and

presenting data.” Pet. App. 37, 43; see *id.* at 35-43. At the second *Mayo/Alice* step, the court determined that the claims do not “contain an ‘inventive concept sufficient to transform the claimed abstract idea into a patent-eligible application.’” *Id.* at 43 (quoting *Alice*, 573 U.S. at 221); see *id.* at 43-47. The court concluded that the claims do not “offer[] a specific, concrete contribution to the technology of digital archiving,” but instead merely describe conventional steps involving the “use of a generic computer program to collect, store, analyze, edit, or present data” and identify desirable functionalities of the envisioned system. *Id.* at 45, 47. The court stated that, “while rife with technical terms,” the claims “recite the claimed methods at a relatively high level of generality,” and “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.’” *Id.* at 46.

3. The court of appeals reversed. Pet. App. 1-21. The court stated that “[p]atent eligibility under 35 U.S.C. § 101 is ultimately an issue of law,” but that the “inquiry may contain underlying issues of fact.” *Id.* at 7; see *id.* at 14. At the first *Mayo/Alice* step, the court agreed with the district court that all of the claims at issue are variously directed to abstract ideas of “parsing, comparing, storing, and editing data.” *Id.* at 11; see *id.* at 11-14. At the second *Mayo/Alice* step, the court of appeals concluded that some of the disputed claims are patent-ineligible, but that the patent-eligibility of other claims depends on factual questions that cannot properly be resolved at summary judgment. *Id.* at 14-21.

The court of appeals stated that the second *Mayo/Alice* step “is satisfied when the claim limitations in-

volve more than performance of well-understood, routine, and conventional activities previously known to the industry.” Pet. App. 14 (brackets, citation, and internal quotation marks omitted). “[W]hether a claim element or combination of elements is well-understood, routine, and conventional to a skilled artisan in the relevant field,” the court stated, “is a question of fact,” and “[a]ny fact, such as this one, that is pertinent to the invalidity conclusion must be proven by clear and convincing evidence.” *Ibid.*

The court of appeals noted that “[t]he specification describes an inventive feature that stores parsed data in a purportedly unconventional manner,” which “eliminates redundancies, improves system efficiency, reduces storage requirements, and enables a single edit to a stored object to propagate throughout all documents linked to that object.” Pet. App. 18. The court further noted, however, that “[t]he parties dispute[d] whether th[o]se improvements to computer functionality” described in the specification are actually “captured in the claims.” *Ibid.* The court concluded that four of the eight claims at issue (claims 1-3 and 9) “do not capture the purportedly inventive concepts” because they do not contain “limitations which incorporate” those concepts and “do[] not recite any of the purportedly unconventional activities disclosed in the specification.” *Id.* at 18-19. It held that the limitations contained in claim 1, for example, “amount to no more than performing [an] abstract idea of parsing and comparing data with conventional computer components.” *Id.* at 19.

In contrast, the court of appeals held that the remaining claims (claims 4-7) “contain limitations directed to the arguably unconventional inventive concept

described in the specification.” Pet. App. 19. Those limitations, the court explained, describe storing data efficiently (“storing a reconciled object structure in the archive without substantial redundancy”) and propagating edits to documents that contain the same element (“selectively editing an object structure, linked to other structures to thereby effect a one-to-many change in a plurality of archived items”). *Id.* at 19-20. The court concluded that “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,” and that “[w]hether 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.” *Id.* at 20. The court emphasized that it “d[id] not decide” whether “claims 4-7 are patent eligible,” but instead determined only “that on this record summary judgment was improper, given the fact questions created by the specification’s disclosure.” *Id.* at 21.

4. The court of appeals denied HP’s petition for rehearing en banc. Judges Moore and Lourie each issued an opinion concurring in the denial of rehearing en banc. Pet. App. 87-103. Judge Reyna issued an opinion dissenting from the denial of rehearing en banc. *Id.* at 104-120.

#### DISCUSSION

The question presented in the petition for a writ of certiorari concerns the appropriate manner for determining whether the subject matter of a patent claim is patent-eligible under 35 U.S.C. 101—in particular, whether “patent eligibility is a question of law for the court” or instead is “a question of fact for the jury.”

Pet. i. Resolution of the question presented in the petition logically depends on the substantive standard for assessing patent-eligibility under Section 101. As explained in the government’s brief filed today in response to the Court’s invitation in *Hikma Pharmaceuticals USA Inc. v. Vanda Pharmaceuticals Inc.*, No. 18-817 (petition for cert. filed Dec. 27, 2018), this Court’s recent decisions have fostered uncertainty concerning those substantive Section 101 standards. In light of that uncertainty, review to address the logically subsequent, procedural question presented in the petition here is premature. The Court should grant review in an appropriate case to clarify the substantive Section 101 standards and then address any ancillary issues that remain.

The parties’ petition-stage briefs obliquely address the substantive standards for patent eligibility. This case, however, would be an unsuitable vehicle to provide guidance on those questions. The parties disagree as to what the claimed invention comprises—including specifically as to whether Berkheimer’s claims merely identify a desirable functionality of a software system or instead describe a particular method to achieve it—and the court of appeals did not purport to resolve that dispute. That disagreement could significantly impede, and at a minimum would complicate, efforts to clarify broader Section 101 principles in this case. And because the court of appeals expressly reserved judgment on the patent-eligibility of the only claims still at issue here, the Court would have to address those questions without the benefit of the Federal Circuit’s views. Further review is not warranted.

1. HP’s petition for a writ of certiorari seeks review of the question “whether patent eligibility is a question of law for the court based on the scope of the claims or

a question of fact for the jury based on the state of the art at the time of the patent.” Pet. i. The answer to that question necessarily depends on the substantive standard for patent eligibility under Section 101. Whether the patent-eligibility determination entails a legal, factual, or hybrid inquiry, and who (judge or jury) is properly tasked with making that determination, turn largely on the substance of the inquiry. See, e.g., *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 384-391 (1996).

As the government explains in its brief in response to the Court’s invitation in *Hikma, supra*, although the Court has construed Section 101 and its precursors for well over a century, its recent decisions have introduced substantial uncertainty regarding the proper Section 101 inquiry. U.S. Amicus Br. at 8-21, *Hikma, supra* (No. 18-817) (*Hikma* Invitation Br.). Section 101, like its predecessors, enumerates several categories of patent-eligible subject matter, authorizing the issuance of a patent for “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” 35 U.S.C. 101. The Court has long recognized that those terms, while broad, are not boundless. E.g., *Diamond v. Chakrabarty*, 447 U.S. 303, 308 (1980). They do not encompass, for example, newly discovered natural phenomena that are unaltered by humankind. See, e.g., *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 130-131 (1948); *Hikma* Invitation Br. at 2-4.

Until 2010, the Court’s decisions recognizing that such discoveries are not patent-eligible were best understood as interpreting the terms enumerated in the statute in light of their history and statutory context. See *Diamond v. Diehr*, 450 U.S. 175, 184 (1981) (“process”); *Corning v. Burden*, 56 U.S. (15 How.) 252, 267 (1854)

(“machine”); *American Fruit Growers, Inc. v. Brogdex Co.*, 283 U.S. 1, 11 (1931) (“manufacture”); *Chakrabarty*, 447 U.S. at 308 (“composition of matter”). Beginning with *Bilski v. Kappos*, 561 U.S. 593 (2010), however, the Court has applied a different approach. The *Bilski* Court stated that those terms should instead be given their general-purpose “dictionary definitions,” but that Section 101’s scope is nevertheless limited by three “exceptions” that “are not required by the statutory text”: “laws of nature, physical phenomena, and abstract ideas.” *Id.* at 601, 603 (citation omitted).

In *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (2012), and subsequent cases, the Court has developed and applied a two-part framework for determining whether a particular patent claim is rendered patent-ineligible by one of the *Bilski* exceptions. See *id.* at 77-92; *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. 208, 217 (2014). First, a court determines whether a claim is “directed to” a “law[] of nature, natural phenom[on], [or] abstract idea[.]” *Alice*, 573 U.S. at 217. “If so,” the court then “ask[s], ‘what else is there in the claims’”—considering “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,” but effectively disregarding activities that are “well-understood, routine, [and] conventional.” *Id.* at 217, 225 (quoting *Mayo*, 566 U.S. at 73, 78-79) (brackets omitted); see also *Association for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589-596 (2013).

As the government’s brief in *Hikma* explains, that new framework has generated substantial uncertainty

in the lower courts concerning the scope of the exceptions and the proper methodology for determining whether a particular patent implicates them. See *Hikma* Invitation Br. at 10-21. In *Hikma*, for example, the majority and dissenting opinions in the Federal Circuit each pointed to different aspects of the language and logic of this Court's decision in *Mayo* in reaching diametrically opposite conclusions regarding the patent-eligibility of a concrete method of medical treatment. See *id.* at 14-15. Although the majority correctly held that the method of treatment in that case is patent-eligible—a result that accords with long-established precedent and practice and appears to reflect the outcome the *Mayo* Court intended—the dissent explained how *Mayo* might instead be read to cast doubt on that understanding.

The resulting uncertainty as to the proper application of the *Mayo* framework has considerable practical consequences for various types of medical innovations. See *Hikma* Invitation Br. at 15-16. For example, multiple separate opinions respecting the denial of rehearing en banc in *Athena Diagnostics, Inc. v. Mayo Collaborative Services, LLC*, 927 F.3d 1333 (Fed. Cir. 2019), petition for cert. pending, No. 19-430 (filed Oct. 1, 2019), expressed their authors' desire for further guidance concerning the application of *Mayo* to medical diagnostic methods. And although *Mayo* itself is the most immediate source of the conflicting views articulated by the various opinions in *Hikma* and *Athena*, the difficulties lower courts face ultimately derive in substantial part from the *Bilski* Court's new conception of Section 101's scope. See *Hikma* Invitation Br. 17-21.

As both petitioner and respondent acknowledge, although the question presented in this case focuses on the

allocation of decision-making authority between judge and jury, that question is “deeply intertwined” with the underlying legal standards that govern patent-eligibility under Section 101. Br. in Opp. 26 (citation omitted); see Cert. Reply Br. 2. The question presented in HP’s petition focuses on whether the Section 101 patent-eligibility inquiry calls for a legal determination by courts, a factual determination by juries, or both. That question would be difficult to answer in any cogent manner while uncertainty about the substance of the Section 101 inquiry persists. Cf. *U.S. Bank N.A. ex rel. CWCapital Asset Mgmt. LLC v. Village at Lakeridge, LLC*, 138 S. Ct. 960, 970 (2018) (Sotomayor, J., joined by Kennedy, Thomas, and Gorsuch, JJ., concurring) (standard of appellate review is “deeply intertwined with the test being applied”). At a minimum, the answer to the question HP’s petition poses may be significantly affected by additional guidance this Court provides about the proper analysis for ascertaining whether Section 101 encompasses a particular patent claim.

Granting review in this case to address that procedural question would therefore be premature. The Court instead should grant review in an appropriate case to clarify those substantive standards, and it should defer resolution of ancillary issues such as the judge-jury question raised in HP’s petition.

2. Although the question presented in HP’s petition focuses on whether the Section 101 inquiry involves “a question of law for the court \* \* \* or a question of fact for the jury,” Pet. i, the parties’ submissions also allude to the substantive Section 101 standard, and they contemplate the possibility that the Court might address that standard as it applies to Berkheimer’s patent, Br. in Opp. 25-26; Cert. Reply Br. 2-3. This case, however,

would not provide a suitable vehicle to address those broader questions.

The parties' filings reflect significant disagreement about what the claimed invention actually comprises. The district court appeared to view Berkheimer's patent as simply identifying features that it would be desirable for a software system to possess—one-to-many editing, increased efficiency, and reduced redundancy and storage costs—rather than as claiming a specific method for achieving those features and the corresponding benefits. See Pet. App. 44-47. In contrast, the court of appeals appeared to conclude that the claims at issue could be read as identifying a particular method that will achieve the desired results, and it declined to determine which view of the patent is correct in the case's current summary-judgment posture. See *id.* at 19-21. The parties' petition-stage briefs echo that disagreement. HP contends (Pet. 5) that the claims “do not recite unconventional computer hardware, specific programming, or tailored software” to enable “one-to-many editing,” and that the claims do not “provide any meaningful guidance as to how to write software implementing the claims.” Berkheimer disputes that contention (Br. in Opp. 6), asserting that the patent “describes every element of the invention's architecture” that is needed to achieve the desired functionalities.

The parties' disagreement about whether the patent describes the invention in sufficient detail to “enable any person skilled in the art” to “make and use” it implicates an independent prerequisite to patentability under 35 U.S.C. 112(a). But uncertainty about the precise contours of the invention also bears directly on whether the patent claims a “new and useful process,” 35 U.S.C. 101, as that term is properly understood in

the context of a statute by which Congress has exercised its constitutional authority to safeguard contributions to the “useful Arts,” U.S. Const. Art. 1, § 8, Cl. 8. It would be difficult to provide meaningful clarity about Section 101’s boundaries without first knowing whether and to what extent the invention represents a particular practical implementation of broader principles of software design to achieve the stated objective, or merely posits one possible way one might attempt to do so.

Such uncertainty about the nature of the invention itself would present an obstacle in any area of innovation. In *Diehr, supra*, for example, the Court deemed patent-eligible a particular process for curing rubber that avoided over-curing or under-curing through ongoing measurements and constant recalculation of the duration of the curing process with a computer in real time. See 450 U.S. at 177-178, 181-192. The patent-eligibility analysis would have been considerably more difficult, if not impossible, if a genuine dispute had existed as to whether the patent merely recognized that avoiding over-curing and under-curing would be a beneficial attribute without identifying a particular series of concrete steps to achieve that result.

The difficulties created by the uncertainty about the invention may be exacerbated in the software-system context, in which this case arises. In the context of other, more familiar types of innovations—such as industrial processes or methods of medical treatment—courts have confronted patent-eligibility questions for many decades and can draw on historical practice and precedent to aid in distinguishing patent-eligible processes from patent-ineligible aspirations. In contrast, courts (and this Court in particular) have less experi-

ence addressing such questions in the context of software systems. It may be unclear how principles developed to address the patent-eligibility of innovations that involve human intervention in the physical world translate to improvements in software architecture. And a search for appropriate analogies to more familiar innovations to guide the analysis would be particularly difficult where, as here, the content of the claimed software invention is itself contested.

To be sure, in any technological context, borderline cases will inevitably arise in which text, history, and tradition provide no clear answer to the question whether particular claimed inventions are patent-eligible under Section 101. Yet neither the question presented nor petitioner's legal arguments are limited to software inventions: petitioner instead asks the Court to grant review in this case to announce principles that will govern Section 101 analysis more generally. And attempting to clarify those overarching principles in a comparatively unfamiliar context might prove especially challenging.

The Court, moreover, would have to face that challenge here without the benefit of a ruling from the court of appeals on the application of Section 101 to the claims still at issue. The Federal Circuit did not reach an ultimate determination on whether claims 4-7 are patent-eligible. See Pet. App. 20-21. It reserved judgment on that question because it concluded that a genuine factual dispute existed as to whether "claims 4-7 archive documents in an inventive manner that improves" the aspects of the system cited in the claims. *Id.* at 20.

The limited scope of the arguments the parties have presented and are likely to present might also hinder the Court's ability to clarify the substantive analysis that governs the Section 101 inquiry. To the extent HP

seeks clarification of the substantive Section 101 inquiry, its arguments appear to address only the proper application of the second *Mayo/Alice* step. See Cert. Reply Br. 3. As the government’s invitation brief in *Hikma* explains, however, the current uncertainty stems from both steps in that framework, and more fundamentally from the *Bilski* Court’s recasting of long-recognized inherent limitations on Section 101’s affirmative scope as atextual exceptions to the statute. See *Hikma* Invitation Br. 10-21. It is unclear whether HP, which contends that the court below erred by failing faithfully to apply the framework developed in *Mayo* and *Alice* to implement *Bilski*’s approach, see Pet. 11-21, would advance arguments that invite the Court to revisit some or all of that approach.

Berkheimer may have more reason to pursue such an argument, but he did not file a cross-petition for a writ of certiorari. He thus might be precluded from advancing arguments in this Court that would have the effect of “modify[ing] the judgment” below—including arguments that would call into doubt the court of appeals’ conclusion that other claims in the patent (claims 1-3 and 9) are patent-ineligible under Section 101. *Trans World Airlines, Inc. v. Thurston*, 469 U.S. 111, 119 n.14 (1985) (declining to consider argument by respondents, who did not file cross-petition, that if adopted would result in modification of judgment below); see *Federal Energy Admin. v. Algonquin SNG, Inc.*, 426 U.S. 548, 560 n.11 (1976) (same); cf. *Jennings v. Stephens*, 574 U.S. 271, 276 (2015) (“[A]n appellee who does not cross-appeal may not attack the decree with a view either to enlarging his own rights thereunder or of lessening the rights of his adversary.” (citation and internal

quotation marks omitted)). Rather than attempt to resolve broader questions of Section 101's substantive scope in the face of those difficulties, the Court should await an appropriate case that properly presents those broader questions without similar obstacles.

**CONCLUSION**

The petition for a writ of certiorari should be denied. In the alternative, if the Court grants the petition for a writ of certiorari in *Athena Diagnostics, Inc. v. Mayo Collaborative Servs., LLC*, No. 19-430 (filed Oct. 1, 2019), the petition in this case should be held pending the Court's decision in *Athena* and then disposed of as appropriate.

Respectfully submitted.

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