

No. 19-353

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IN THE  
**Supreme Court of the United States**

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TRADING TECHNOLOGIES INTERNATIONAL, INC.,  
*Petitioner,*  
v.  
IBG, LLC, et al.,  
*Respondents.*

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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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**REPLY BRIEF FOR PETITIONER**

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## REPLY BRIEF FOR PETITIONER

The decision below held groundbreaking user-interface inventions that “that assist[] traders in processing information more quickly” to be abstract and therefore unpatentable because they “do not improve the functioning of the computer.” Pet.App.18. That decision was the latest in a series of Federal Circuit decisions elevating an offhand example from this Court’s decision in *Alice Corp. Pty. Ltd. v. CLS Bank Intern.*, 573 U.S. 208 (2014), into a rule excluding from patent-eligibility computer-implemented inventions that do not improve the “basic functions” of the computer itself. The government does not defend that rule, attempt to reconcile it with this Court’s precedents, or dispute that it conflicts with a separate line of Federal Circuit cases holding precisely the opposite. Instead, it insists that this case does not implicate that rule, a contention rebutted by the express reasoning of the court below, which turned on application of the “basic functions” standard.

The serious consequences of that indefensible rule call for the Court’s review. It arbitrarily denies patent protection to software tools like user interfaces that provide valuable functionality and benefits to users no different than physical-realm tools, undermining the Patent Act’s central purpose of fostering innovation. The Federal Circuit’s well-recognized split in authority on this question has left the law in a state of chaos. This Court’s intervention is necessary to clarify the law, repudiate a badly mistaken interpretation of its *Alice* decision, and address a deepening conflict in

authority that the Federal Circuit has proven unable to resolve.

The Court should also take the opportunity to reconsider the viability of the “abstract idea” exception to patent eligibility, which the government concedes (at 22) “has no grounding in Section 101’s text.” The government contends that this case is a poor vehicle to implement its preferred return to the Court’s pre-*Bilski* jurisprudence, but it does not in fact dispute that this is a good vehicle for the question actually presented by the Petition, which is whether the exception should exist at all. Fifty years of confusion on the patent eligibility of computer-implemented inventions should provide proof enough that the exception is hopelessly unworkable, and the government’s preferred course of overruling *Bilski* would do nothing to change that. Instead, the better course is for the Court to acknowledge the fundamental error of engrafting a standardless exception onto a statute that does not brook it. Doing so would take the courts out of the business of making patent law on the fundamental question of eligibility, leave them to their proper role of applying the law as wrought by Congress, and permit a more tailored approach to delineating the scope of the other exceptions, for “laws of nature” and “natural phenomena,” that (unlike the “abstract idea” exception) are grounded in the statutory text and Constitution’s Patent Clause.

Finally, the same “considerable practical consequences” of the current uncertainty in the law of patent eligibility identified in the government’s brief filed in response to this Court’s invitation in *Hikma Pharmaceuticals USA Inc. v. Vanda Pharmaceuticals Inc.*, No. 18-817, weigh heavily in favor of granting this petition. See Hikma Invitation Br. at 15. As the government there explains, the Court’s recent Section 101 decisions “have sent shock waves through the research, technology, business, and patent communities, prompting many to express hope that this Court would provide fuller and clearer guidance on patent eligibility standards.” *Id.* at 16 (quotation marks and alterations omitted).

The Petitioner agrees and respectfully suggests that this case is an appropriate vehicle to provide such guidance with respect to an important class of inventions, those involving software-based tools, that have greatly suffered from the chaos and confusion inherent in the “abstract idea” exception.<sup>1</sup>

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<sup>1</sup> The petition in *Trading Technologies International, Inc. v. IBC, LLC*, No. 19-522, presents the same questions for review as this one and was filed separately only because of the pendency of petitions for rehearing. Petitioner believes that this case presents a superior vehicle for answering those questions, based on the clarity of the reasoning of the decision below.

## I. The First Question Presented Warrants Review

The decision below is the latest in a string of Federal Circuit decisions to deny patent protection to computer-implemented inventions, irrespective of the useful functionality they provide to users, because they do not make hardware-like improvements to computers’ “basic functions.” That rule, in addition to being the subject of an intra-circuit split, conflicts with decisions of this Court like *Bilski v. Kappos*, 561 U.S. 593, 602 (2010). The government’s only response on this point is to dispute (at 16) that the court below applied “any such categorical rule in this case.” That contention is incorrect.

A. The decision below can and should be taken at its word as to its reasoning, which espoused and applied the categorical “basic functions” standard. It set out and applied a “general rule” that the “collection, organization, and display...of information...is abstract.” Pet.App.17 (quotation marks omitted). It drew that “general rule” from two of the Federal Circuit’s “basic functions” cases. *See* Pet.App.16–17.<sup>2</sup> The first was *Electric Power Grp., LLC v. Alstom S.A.*, which held abstract a claimed system and methods for performing real-time performance monitoring of an electric power grid because they did not focus on “a specific improvement...in how computers could carry

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<sup>2</sup> The cited reasoning addressed the ’999 patent. The court stated that it applied the same reasoning to hold the ’056 and ’374 patents ineligible. *See* Pet.App.19, 21.

out one of their basic functions.” 830 F.3d 1350, 1354 (Fed. Cir. 2016). And the second was *Interval Licensing LLC v. AOL, Inc.*, which held abstract claims for a graphical “attention manager” system to avoid distractions while working because it was not “not an improvement in how computers and networks carry out their basic functions.” 896 F.3d 1335, 1345 (Fed. Cir. 2018). The position of the court below that Petitioner’s computer-implemented user interfaces were abstract and ineligible for patents was unambiguously an application of the Federal Circuit’s categorical “basic functions” standard.

The court below likewise made clear that it regarded the useful functionality provided by Petitioner’s inventions—that is, the tools they provide to users—to be categorically irrelevant. *See* Pet.App.18 (deeming irrelevant that ’999 invention “assists traders in processing information more quickly”); Pet.App.20 (deeming irrelevant that ’056 invention “helps the trader process information more quickly”); Pet.App.21 (declaring it “unavailing” that the ’374 invention “solves the price-flipping problem of prior art interfaces” that frustrated accurate trading). To the court below, it was dispositive of patent eligibility that Petitioner’s inventions “focused on improving the trader, not the functioning of the computer.” Pet.App.14.

The government less defends the reasoning of the court below than simply accepts it. It, too, treats the specific functionality of Petitioners’ inventions as ir-

relevant and echoes the view that computer-implemented “inventions [that] do not improve the functioning of a computer” are necessarily abstract, without actually explaining why that would be so. Br. at 15. Later, it suggests (at 16–17) that the inventions at issue may not be novel or non-obvious, which was not implicated by the decision below and is, as the government elsewhere explains (at 2–3), an entirely different inquiry. *See also* Hikma Invitation Br. at 18–19. This hand-waving only underscores the hollowness of the government’s claim that the decision below turned on anything other than application of the “basic functions” standard.<sup>3</sup>

B. The reason the government does not defend the “basic functions” standard is that it is indefensible. The government declines to address the scores of Federal Circuit decisions—including the two discussed above that the decision below relied upon—articulating and applying that standard. *See* Pet.17–20. It does not attempt to reconcile that standard with *Bilski*’s disapproval of any “categorical rule denying patent protection for inventions in areas not contemplated by Congress,” 561 U.S. at 605 (quotation marks omitted). *See* Pet.23–25. It does not address the compelling

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<sup>3</sup> The government’s suggestion (at 17) that Petitioner disputes the Board’s or the lower court’s construction of its claims is a red herring. The issue here is whether software inventions like user interfaces should be assessed for abstractness based on the functionality they provide to users, rather than on whether they improve a computer’s “basic functions,” and the government correctly identifies no dispute over claim construction material to that question.

scholarly criticism of that standard. *See* Pet.24. And it does not lend its support to the view of some Federal Circuit panels that *Alice* limited patent eligibility for computer-implemented inventions to those that make hardware-like improvements. *See* Pet.25–26. The government’s silence on these points is deafening.

C. So too is the government’s refusal to address the intra-circuit split in authority on this issue. The existence of that conflict cannot be disputed: while one line of decisions holds inventions like user interfaces to be ineligible because they do not improve the computer’s “basic functions,” a separate line of decisions holds precisely the opposite, approving the patent eligibility even of user interfaces like Petitioner’s. *See* Pet.16–23. Indeed, one of that separate line of decisions upheld the eligibility of user-interface patents owned by Petitioner that are materially indistinguishable from those here, on the basis that their claimed inventions “improve[] the accuracy of trader transactions” and so were not directed to abstract ideas. *Trading Techs. Int’l, Inc. v. CQG, Inc.*, 675 F. App’x 1001, 1006 (Fed. Cir. 2017); *see also* Pet.21 (describing how that decision’s reasoning has been applied in subsequent Federal Circuit decisions rejecting the “basic functions” standard). In plain conflict, the decision below held such user-functionality improvements to be irrelevant in assessing abstractness. Pet.App.18, 20, 21.

Not only is the split in Federal Circuit authority plain on the face of such conflicting decisions, but it

has also been cited as a source of confusion by the Patent and Trademark Office itself. *See 2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50, 52 & n.11 (Jan. 7, 2019) (identifying this split as one in which “similar subject matter has been described both as abstract and not abstract”). It has similarly been subject to scholarly exposition and criticism. *See, e.g., Hung Bui, A Common Sense Approach To Implement the Supreme Court’s Alice Two-Step Framework To Provide “Certainty” and “Predictability,”* 100 J. Pat. & Trademark Off. Soc’y 165, 237 (2018). This split in authority has only grown in the four years since the Federal Circuit first misread *Alice* to require the “basic functions” approach,<sup>4</sup> and its deepening and persistence call for the Court’s intervention.

## **II. The Second Question Presented Warrants Review**

The government is right to suggest (at 13) that this Court’s review will be required to resolve “[t]he confusion that lower courts confront in applying Section 101,” but wrong to suggest that this case is not an appropriate vehicle in which to do so. This case squarely raises the viability of the “abstract idea” exception to patent eligibility under the Patent Act, and that issue is dispositive of the patent eligibility of Petitioner’s inventions.

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<sup>4</sup> *See Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016).

A. The government correctly concedes (at 22) that the “abstract idea” exception “has no grounding in Section 101’s text,” and that concession confirms the necessity that this Court revisit its decisions to the contrary, as no lower court has the ability to do so. *See Agostini v. Felton*, 521 U.S. 203, 237 (1997). Where the government errs is contending (at 22) that “the absence of any textual foundation for the abstract-ideas exception” should lead the Court to fashion a new law of patent eligibility, divorced from statutory authorization or command. Instead, the proper course, if the exception finds no support in statutory law, is for the Court to conform its jurisprudence to the statute, rather than devise some new but equally atextual standard that will inevitably lead to the same confusion in determining whether claimed inventions are directed to “abstract ideas.” *See Girouard v. United States*, 328 U.S. 61, 69–70 (1946) (reasoning that, when a precedent is based on a judge-made doctrine in the face of “statutory silence,” the Court cannot “properly place on the shoulders of Congress” the entire burden of correcting “the Court’s own error”). Moreover, the government appears to agree that the interests of *stare decisis* do not counsel against the Court’s revisiting its precedents on eligibility. *See* Br. at 20; Hikma Invitation Br. at 18–20 (arguing that Court should jettison its current approach to eligibility).

B. It is only the government’s ill-conceived drive to relitigate *Bilski* that leads it to conclude that this case is anything less than an ideal vehicle to decide

the second question presented. So far as concerns *the actual question*—whether to abandon the atextual and unworkable “abstract idea” exception—there is no apparent dispute that this case is suitable. Instead, what the government asserts (at 21) is that this case would be a poor vehicle for the Court to “return to its pre-*Bilski* conceptualization of Section 101’s boundaries.” But that assertion is an indictment of what the government requests the Court to do. This case involves typical software tools that provide valuable functionality to users no different than physical-realm tools. As the Court is well aware, the patent eligibility of such computer-implemented tools was marked with confusion well before *Bilski*. See, e.g., *Bilski*, 561 U.S. at 600–01 (describing the splintered views of the Federal Circuit); *id.* at 613–14 (Stevens, J., concurring in the judgment) (describing “years of confusion”); *Diamond v. Diehr*, 450 U.S. 175, 195–205 (1981) (Stevens, J., dissenting) (recounting literally decades of confusion over the patentability of computer programs). After 50 years of confusion, why would the Court trade one unworkable regime for another? The government has no explanation.

C. Likewise, the government’s questioning (at 23) of the novelty or non-obviousness of Petitioner’s inventions demonstrates the fundamental conflict between the “abstract idea” exception and the Act itself. To the extent that patent claims are directed to a “longstanding...practice,” then it is Section 102’s novelty requirement—and not an atextual and all-encom-

passing view of Section 101’s subject-matter eligibility requirement—that bars issuance of a patent. Again, the government’s argument on this point, which reads Section 101 to intrude on the Act’s other provisions, only confirms the uncertain bounds and unworkability of the exception and, thus, the necessity of revisiting its viability. *See* Hikma Invitation Br. at 18–19 (arguing that the Section 101 eligibility requirement cannot be interpreted to intrude on “the novelty and nonobviousness requirements of Sections 102 and 103”).

D. The government also errs in lumping together the “abstract idea” exception with the other two recognized exceptions to patent eligibility. *See* Br. at 19–21. Unlike the “abstract idea” exception, the exceptions for “laws of nature” and “natural phenomena” arguably find support in the Act’s text, *see* 35 U.S.C. § 101 (limiting eligibility to “any *new* and useful process, machine, manufacture, or composition of matter”) (emphasis added), and may ultimately implement a constitutional limitation on Congress’s Patent Clause authority, *see Bilski*, 561 U.S. at 649–50 (Stevens, J., concurring in the judgment) (discussing the “constitutional standard” that has informed the Court’s eligibility decisions). By contrast, there is (as the government acknowledges, at 22) no statutory hook for the “abstract idea” exception, and there is no serious argument that congressional authorization of patents for user interfaces or other inventions that the courts have deemed “abstract” transgresses constitutional limitation.

In addition, cases involving “laws of nature” and “natural phenomena” raise very different issues than “abstract idea” cases involving computer-implemented inventions and the like. Subjecting them all to the same mode of analysis, as the Court’s case law now does, only frustrates the development of rules providing greater clarity and certainty for inventions like diagnostic and treatment methods.

### CONCLUSION

The Court should grant the petition.

Respectfully submitted,

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