

IN THE
Supreme Court of the United States

SMARTFLASH LLC AND
SMARTFLASH TECHNOLOGIES LIMITED,
Petitioners,

v.

APPLE INC.,
Respondent.

**On Petition for a Writ of Certiorari
to the United States Court of Appeals
for the Federal Circuit**

REPLY BRIEF FOR PETITIONERS

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CORPORATE DISCLOSURE STATEMENT

Petitioners' Rule 29.6 Statement was set forth at page iii of the petition for a writ of certiorari, and there are no amendments to that Statement.

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STATUTES

Patent Act (35 U.S.C.):

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Smartflash’s infringement claims were tried to a jury, which rejected Apple’s claims that the patents were invalid and found that Apple had infringed in the asserted claims, and the district court upheld that verdict. The Federal Circuit, without addressing the determination that the patents were novel and nonobvious, ruled that the claims – which cover devices used in the secure and convenient distribution of digital content – were ineligible for patent protection because they are directed to an abstract idea and contain no “inventive concept.”

That judgment makes no sense. The technological challenges associated with digital commerce were pressing at the time of the invention, and there were many prior patents directed to overcoming the technological obstacles to the secure and convenient sale, delivery, and storage of digital content. The Smartflash patents solve those problems in a new and specific way; the claimed solutions do not preempt alternative approaches found in the prior art. The Federal Circuit offered no explanation for how a patented solution to a technological problem could be novel and nonobvious – and thus not preemptive – yet still fail to be “inventive” for purposes of patent eligibility under § 101.

Contrary to Apple’s characterization (at 11), this is not merely a case-specific error. Rather, it betrays the Federal Circuit’s misinterpretation of the two-step patent-eligibility inquiry derived from this Court’s decisions in *Mayo* and *Alice*. Those cases make undue preemption the touchstone for patent ineligibility; the Federal Circuit’s misapplication of those precedents renders the question of undue preemption irrelevant – leading the court to hold, in this case and others, that a claimed technological invention can be ineligible for protection even though it is *not* unduly preemptive. *Mayo* and *Alice* direct courts to evaluate patent

eligibility by, first, determining whether the claim is directed to an ineligible concept and, next, determining whether the claim “has additional features that provide practical assurance” that the claim is not merely “a drafting effort designed to monopolize the [ineligible concept] itself.” *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 77 (2012); see *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014) (“in applying the § 101 exception, we must distinguish between patents that claim the building blocks of human ingenuity and those that integrate the building blocks into something more”) (brackets omitted). Assuming that it is directed to an abstract idea, a patent that teaches a specific technological solution – a specific *way* of accomplishing a desired goal using computer elements – is eligible under § 101 precisely because it is not unduly preemptive.

Apple does not dispute that whether the Federal Circuit is improperly restricting patent eligibility is a question of great importance; it does not contest that the issue was properly preserved or that the Federal Circuit decided it. Instead, it takes issue with Smartflash’s characterization of Apple’s position on appeal. But for all its bluster, the fact remains that Apple did not contest on appeal that the verdict rejecting its invalidity claims was supported by the evidence. Instead, Apple sought a *new trial* based on an objection to the burden-of-proof instruction. See Opp. 16. No new trial would have been needed (and the supposed instructional error would have been beside the point) if there had been insufficient evidence to support the verdict on these grounds.

Moreover, the Federal Circuit’s ruling treated those validity findings as irrelevant to its subject matter ineligibility inquiry, and that is the crux of the court of appeals’ error. To be sure, if this Court grants the

petition and reverses the judgment below, there are additional arguments that Apple made on appeal (related to means-plus-function claiming and the district court’s claim construction) that will be addressed on remand.¹ But that is commonplace and does not make this case less worthy of review.

As commentators – and even sitting Federal Circuit judges – have recognized, the Federal Circuit’s chaotic patent-eligibility decisions fail to provide guidance for the innovative community. Worse, the Federal Circuit’s systematic misapplication of this Court’s precedents is undermining incentives for innovation. Review by this Court is needed to restore doctrinal coherence and consistency to the Federal Circuit’s application of *Alice* and *Mayo*. The integrity of the nation’s patent system depends on it.

¹ Smartflash has never suggested otherwise. Apple’s accusation that Smartflash “seriously mischaracterizes the record,” Opp. 15, is perplexing. There is no question that the Federal Circuit “discarded a verdict of liability in a case involving knowing infringement,” Pet. 13 – Apple was found liable of inducing infringement, which requires knowledge. See *Global-Tech Appliances, Inc. v. SEB S.A.*, 563 U.S. 754 (2011). Although the district court granted Apple’s motion for judgment on *willful* infringement, it specifically noted that its decision to uphold the verdict of inducement was consistent with this earlier holding. See App. 34a n.4. Apple did not challenge this ruling on appeal.

Apple argues (at 15) that it is “troubling” for Smartflash to assert that there was a “verdict of validity” at issue in this case, but, of course, there was, as the jury found that Apple did not prove invalidity. Perhaps Apple means to suggest that Smartflash sought to portray the verdict as “unchallenged,” but Smartflash did not do so – “unchallenged” is Apple’s word, and it does not appear in the petition. What Smartflash said was “Apple did not dispute on appeal that the verdict of validity and infringement was supported by the evidence.” Pet. 2. That is uncontestable.

ARGUMENT**THE COURT SHOULD GRANT THE PETITION TO CORRECT THE FEDERAL CIRCUIT'S MISAPPLICATION OF *ALICE* AND *MAYO*****A. The Federal Circuit's Failure To Treat Preemption Concerns as Always Relevant to Patent Eligibility Improperly Excludes Technological Inventions**

1. Contrary to Apple's arguments, this case does not involve a "routine application" of the *Mayo/Alice* framework, Opp. 1, because in this case – almost uniquely among the dozens that the Federal Circuit has decided in the more than three years since *Alice* was decided – a jury and a district judge upheld the novelty and nonobviousness of the claims at issue over the prior art presented at trial. This case thus starkly presents the question whether a patent may lack an "inventive concept" within the meaning of this Court's precedents even though it teaches a technological solution that is – at least arguably – novel, non-obvious, and thus not unduly preemptive.

In the decision below, the Federal Circuit answered that question in the affirmative, stating that whether a specific combination of elements offers distinct advantages over (and therefore is not preemptive of) alternative solutions is "not the test for eligibility" under § 101. App. 14a; *see also* Pet. 19-21. Apple embraces that holding, insisting that lack of preemption is beside the point under § 101. Opp. 12-13 (when a claim is held ineligible, "*preemption concerns are fully addressed and made moot*") (quoting *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015), *cert. denied*, 136 S. Ct. 2511 (2016)).

By distancing the test for patent eligibility from "preemption concerns," the Federal Circuit misreads

this Court’s precedents. The limitations placed on patent-eligible subject matter – the exclusion of “[l]aws of nature, natural phenomena, and abstract ideas” from the scope of § 101 – are designed to guard against “patents . . . that too broadly preempt” the “basic tools of scientific and technological work.” *Mayo*, 566 U.S. at 70-72. The two-step doctrinal test elaborated in *Mayo* and *Alice* embodies this preemption concern. It is not enough for a patent to be “directed to” a patent-ineligible concept; on the contrary, that is true of all patents “[a]t some level.” *Alice*, 134 S. Ct. at 2354. The claims must also lack any “inventive concept” – that is, the claim elements, taken as an ordered combination, are “obvious, already in use, or purely conventional.” *Mayo*, 566 U.S. at 81.

A patent that is even arguably novel and non-obvious over a crowded field of prior art – even assuming that the patent (and the prior art) is directed to an abstract idea – cannot be ineligible under this formulation. By definition, such patents are innovative and different from the prior art in ways that would not be obvious to a person in the relevant technical field. Their novelty does not depend on implementing an abstract idea on the Internet, but instead on the specific arrangement of elements to achieve a superior technological solution. They necessarily include an “inventive concept” under the second step of the *Mayo/Alice* inquiry.

2. In its opposition, Apple does not explain how a patent that claims a novel and nonobvious technical advance over the prior art implementing an abstract idea nonetheless preempts all applications of that abstract idea. Instead, Apple states (at 13-14) that in cases including *Mayo* this Court has already rejected

the argument that novelty and nonobviousness may be dispositive of eligibility under § 101. But Apple misunderstands *Mayo*, which makes clear that a law of nature (for example) may be novel and nonobvious yet still be ineligible – that is, the eligibility test depends on whether the patent is directed to an ineligible category, not on whether the ineligible concept is new. That does not suggest, however, that, in determining whether the claims “add *enough*” to the patent-ineligible concept to avoid undue preemption, *Mayo*, 566 U.S. at 77, novelty and nonobviousness are irrelevant. On the contrary, *Mayo* expressly notes that the second step of the inquiry may “sometimes overlap” with the inquiry into novelty. *Id.* at 90.

None of this Court’s other cases that Apple cites supports its argument that a patent may be ineligible even though it offers a specific technological solution distinct from the ineligible concept. *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127 (1948), held that the discovery that certain strains of bacteria could be mixed without inhibiting other strains was a “phenomen[on] of nature” and therefore not patentable. *Id.* at 130. This Court further reasoned that the patent, beyond disclosing “the non-inhibitive quality of certain strains,” merely claimed the “simple step” of mixing strains of bacteria. *Id.* at 132. The patent thus involved no technical solution beyond “the natural principle itself.” *Id.*

Parker v. Flook, 437 U.S. 584 (1978), likewise supports Smartflash, not Apple. This Court noted in *Flook* that “[t]he obligation to determine what type of discovery is sought to be patented must precede the determination of whether that discovery is, in fact, new or obvious.” *Id.* at 593. The heart of the invention in *Flook* was a mathematical algorithm – an abstract

idea – and not patentable. (This corresponds to step one of the *Mayo/Alice* inquiry.) And, anticipating step two of *Mayo/Alice*, this Court likewise rejected the “notion that post-solution activity, no matter how conventional or obvious in itself, can transform an unpatented principle into a patentable process.” *Id.* at 590. But in this case, when the abstract idea is put to one side, what is left is not “conventional” or “obvious” – on the contrary, the specific technological solutions claimed in the patents were held to be novel and nonobvious.

3. The principle that a technological solution that is at least arguably novel and nonobvious contains an “inventive concept” and is therefore eligible under § 101 does not run into any of the supposed inconsistencies of which Apple warns.

First, it is not the case (and Smartflash does not argue) that mere specificity is the key to eligibility. The patent at issue in *Alice* described intermediated settlement (the abstract idea) specifically. But the patent said nothing specific about the technological implementation of that abstract idea – on the contrary, this Court stressed that any computer implementation was strictly generic. (Indeed, the representative claim does not explicitly mention a computer at all.) By contrast, specificity about *technological implementation* is indeed a basis for finding a claim eligible – the discovery of specific ways to overcome technological problems is at the heart of what the patent laws are intended to promote.

Second, Apple is not correct (at 13) that Smartflash’s position would render eligible all patents that are merely limited to a “particular technological environment” or that include “purely conventional or obvious postsolution activity.” This is not a case – like *Alice* –

where the patent’s supposed contribution was simply to implement a business method on a computer. Patrick Racz did not invent the idea of selling digital content over the Internet. Instead, his invention overcomes technological difficulties that made such digital commerce inconvenient and insecure. And, as the verdict illustrates, Smartflash’s solution cannot be dismissed as purely conventional or obvious.²

Third, it is hardly a telling point that judicial review of eligibility is allowed even though “*every* issued patent has been deemed novel and nonobvious by the [Patent and Trademark Office (“PTO”).” Opp. 13-14. Particularly in the case of patents issued before *Mayo* and *Alice* were decided, the PTO, in assessing patentability, may often have “given credit” for the *ineligible* aspects of a claimed invention – that is, the underlying law of nature (as in *Mayo*) or the underlying abstract idea (as in *Alice*). Furthermore, it is a practical reality that many issued patents do not hold up in litigation – including patents that are found to be anticipated or obvious. *See* Opp. 12 (noting that the PTAB “has held *seven times* more claims to be invalid under 35 U.S.C. §§ 102 and/or 103 . . . than it has held claims to

² Apple has argued that a properly instructed jury might have come out the other way on validity. But the district court’s refusal to give Apple’s requested instruction (which related to the weight to be given to prior art not considered by the patent examiner) was consistent with the district court’s earlier ruling barring Smartflash from introducing evidence that Apple had attempted to institute inter-partes review proceedings based on the assertion that the claims at issue were anticipated or obvious over some of the same prior art that Apple introduced at trial. The Patent Trial and Appeal Board (“PTAB”) refused to institute those proceedings on the ground that there was no “reasonable likelihood” of Apple prevailing on its challenge. *See* 35 U.S.C. § 314(a).

be ineligible under Section 101”). These patents survived repeated challenges based on prior art.

B. The Question Presented Is Important and Properly Presented in This Case

1. By improperly discarding eligible patents at the threshold, the Federal Circuit undermines the patent system precisely where its incentives for innovation are most important. Failing to reward inventors for their contributions to the technological arts threatens to work grave harm to the nation’s position of leadership in the global economy – as a range of commentators have warned. *See* Pet. 28-30.

Just as significant, the Federal Circuit’s approach to patent eligibility has become unpredictable and inconsistent – in large measure because it has failed to limit the exclusion from § 101 to those patents that are unduly preemptive. Apple tries to defend the disarray plaguing the Federal Circuit’s § 101 jurisprudence as reflecting nothing more than the ordinary “common law” process, Opp. 11, but, “[d]espite the number of cases that have faced these questions and attempted to provide practical guidance, great uncertainty yet remains.” *Smart Sys. Innovations, LLC v. Chicago Transit Auth.*, 873 F.3d 1364, 1378 (Fed. Cir. 2017) (Linn, J., dissenting in part and concurring in part); *see Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1307 (Fed. Cir. 2016) (Reyna, J., dissenting) (criticizing the majority’s approach because it “involves the mechanical comparison of the asserted claims in [a] case to the claims at issue in *some, but not all*, of the cases where [the Federal Circuit] ha[s] addressed patent eligibility after” *Alice*) (emphasis added), *cert. denied*, No. 17-136 (U.S. Nov.

27, 2017).³ It is no accident that Apple can cite no favorable commentary on the Federal Circuit’s § 101 jurisprudence.⁴

Furthermore, the nature of the Federal Circuit’s error here – its misreading of this Court’s key precedents – is unlikely to be addressed simply by deciding more cases. The Federal Circuit’s refusal to recognize the centrality of preemption concerns in applying the *Mayo/Alice* test is an error that has been reinforced over time. *See* Pet. 19-20. There is no reason to believe that the Federal Circuit will reverse course unless this Court grants review.

2. The fact that Apple challenged the verdict on grounds other than patent eligibility does not render this case any less suitable for review. Although Apple continued to seek a new trial on validity, its failure to challenge the legal sufficiency of the evidence means that there is no present dispute that the claims at issue here are at least arguably novel and nonobvious;

³ This case illustrates the unreliability of the Federal Circuit’s *ad hoc* “more like a sheep than a goat” approach. The court relied on just two cases to analyze Smartflash’s patents. The court not only neglected to apply its most recent cases – theoretically representing the court’s most up-to-date understanding of the law – but also failed to cite, let alone address, either of the court’s *most* comparable cases. *See* Pet. 25-26. Though Apple asserts (at 10) that the Court “addressed” more than two cases, in fact the only cases to which the Court analogized Smartflash’s patent claims were *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014), and *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709 (Fed. Cir. 2014). *See* App. 11a-14a. So much for Apple’s vaunted “common law” method.

⁴ Apple cites (at 11) an account in the trade press of a Federal Circuit judge’s speech in which (according to the press account) he indicated that the fallout from *Alice* has not been as bad as he expected.

the Federal Circuit did not even address the significance of this finding, although Smartflash relied on it. And the remaining issues that Apple raised – concerning means-plus-function claiming and a claim construction issue – are simply issues that the Federal Circuit can address on remand if this Court reverses the judgment. This does not diminish the importance of the legal issue in general or in this case, and poses no obstacle to review. *See, e.g., Water Splash, Inc. v. Menon*, 137 S. Ct. 1504, 1513 (2017); *Expressions Hair Design v. Schneiderman*, 137 S. Ct. 1144, 1151 (2017).

CONCLUSION

The petition for a writ of certiorari should be granted.

Respectfully submitted,

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