

What Courts Are Saying About Software Patents Post-Enfish

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The U.S. Supreme Court cast a shadow over software patents with its landmark decision in *Alice Corp. Pty Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2355 (2014). As Justice Clarence Thomas bluntly put it, “[s]tating an abstract idea while adding the words ‘apply it with a computer’” is not enough to invoke patent protection. Since *Alice*, courts have routinely invalidated software patents at the motion to dismiss stage, leaving many to wonder whether *Alice* had sounded “the death-knell for patent protection of computer implemented inventions.” *Improved Search LLC v. AOL Inc.*, Civ. No. 15-262-SLR (D. Del. Mar. 22, 2016). A recent decision from the Federal Circuit provides some hope for software patents facing invalidation. However, subsequent court decisions have applied this new decision with mixed results.



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Under 35 U.S.C. § 101, an inventor cannot patent certain subject matter — laws of nature, natural phenomena and abstract ideas have been determined ineligible for a patent. To determine whether a patent falls into one of these categories, the Supreme Court established a two-step framework. *Alice*, 134 S. Ct. at 2354. Courts must first determine whether the patent covers an ineligible concept such as an “abstract idea.” If the answer is yes, courts then look to the elements of the patent’s claims both individually and as an ordered combination to see if there is an “inventive concept” that transforms the “abstract idea” into an eligible concept. *Id.* Following *Alice*, lower courts have often found software patents are “abstract” under the first step of the *Alice* inquiry by characterizing the claims in terms of the overall concept they implement. Once a claim is found “abstract” in the first step, it is difficult to show a transformative “inventive concept” for the second step of the analysis. At this stage, courts often find it fatal when the patent uses conventional computer equipment and software instructions. Of course, this sweeps in most software patents because most software is written and implemented using conventional equipment.



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But what does it mean to be “abstract”? Ironically, *Alice* does not provide a concrete definition, test, or analytical framework for abstractness. *Id.* at 2357. Instead, it takes an “I know it when I see it” approach, stating that “[i]t is enough to recognize that there is no meaningful distinction between the” business practices covered in the *Alice* patent and risk hedging found “abstract” in a prior decision. *Id.* (citing *Bilski v. Kappos*, 561 U.S. 593 (2010)). This is not a new approach; the Federal Circuit often compares claims to prior cases to judge abstractness. See, e.g., *OIP Techs. Inc. v. Amazon.com Inc.*, 788 F.3d 1359, 1362 (Fed. Cir. 2015). And it is true that economic and conventional business practices often are deemed abstract. *Id.* However, it seems that the Supreme Court’s failure to provide a workable test for “abstract ideas” has caused lower courts to reflexively strike down software patents.

This past May, however, the Federal Circuit gave software patent owners a ray of hope with *Enfish LLC v. Microsoft Corporation*, 822 F.3d 1327 (Fed. Cir. 2016). The claims in *Enfish* were directed to a database structure — a logical rather than physical construct. The claimed software used a single table structure to hold data that might otherwise be stored in multiple tables with some common keys to relate the data in the table (e.g., one table with employee name, company code etc.; second table where the company code can be used to look up company address, tax ID number etc.).

The Federal Circuit upheld the validity of the *Enfish* patent. Focusing on Alice’s first step, the court held that there is “no reason to conclude that all claims directed to improvements in computer-related technology, including those directed to software, are abstract and necessarily analyzed at the second step of Alice.” *Id.* at 1335. Instead, the Federal Circuit recognized that courts should “ask whether the claims are directed to an improvement to computer functionality versus being directed to an abstract idea, even at the first step of the Alice analysis.” *Id.* The Federal Circuit relied heavily on explanations in the patent’s specification about how a single table was an improvement to the functioning of computers to find the claim not abstract. *Id.* at 1337. Thus, the apparent analytical framework to judge abstractness was to look for an improvement of functionality with a strong weight given to the patent’s disclosure.

Enfish is encouraging for software patent holders. The Federal Circuit’s renewed interest in the contours of “abstract ideas” may mean that patent holders can defeat eligibility challenges at the first step without triggering the second step of the Alice analysis (involving the complex issue of whether any claimed improvement amounts to an “inventive concept”). *Enfish* also places more emphasis on whether the claimed concepts per se are directed to an improvement of computer functionality rather than whether the implementation uses unique or new equipment, methods or physical structures.

There has not been an immediate sea change. As of Aug. 5, 2016, 27 district court and Federal Circuit decisions^[1] already cited *Enfish*, but all but seven decisions found ineligibility under both steps of the Alice inquiry. We reviewed these cases and found several themes.

Enfish’s Examination of Improved Functionality in Step One May Overlap with Step Two

As noted above, *Enfish* gave teeth to the first step of Alice. However, courts have since struggled to differentiate between the two Alice steps. As the Federal Circuit recognized, “the two stages [of the Alice inquiry] are plainly related” because they involve “overlapping scrutiny of the content of the claims.” *Elec. Power Grp., LLC v. Alstom S.A.*, 2016 WL 4073318, at *3 (Fed. Cir. Aug. 1, 2016). This overlap leads to “close calls about how to characterize what the claims are directed to” and whether they target “abstract ideas.” *Enfish*, 822 F.3d at 1339. The Federal Circuit encouraged courts facing such “close calls” to punt this issue: “In such cases, an analysis of whether there are arguably concrete improvements in the recited computer technology could take place under step two.” *Id.*

The Federal Circuit took this very approach in *Bascom Global Internet Services Inc. v. AT&T Mobility LLC*, No. 2015-1763, slip. op. at 19 (Fed. Cir. June 27, 2016), finding the system configuration claimed, that was designed to block internet content, was potentially novel in step two. In doing so, the Federal Circuit also walked back from a blanket rule that conventional computer equipment and instructions can never demonstrate an “inventive concept.” The line between what it means to show a claim directed to an advance in computer operation in step one compared to what it means to show an “inventive concept” in the second step is unclear other than the later may imply a deeper look at prior art.

Lower courts have similarly moved on to the second step when confronted with close calls. For example,

in *Yodlee Inc. v. Plaid Techs. Inc.*, 2016 WL 2982503 (D. Del. May 23, 2016), the patented invention sought to improve Internet navigation by gathering summary information from users and presenting the information as an HTML. Citing *Enfish*, the court struggled to determine whether the patent was directed to the abstract idea, concluding that “[t]he answer is not clear cut.” The court therefore moved onto step two of *Alice*, finding there was an “inventive concept” of a software-gathering agent. The court did the same thing in *Idexx Labs. Inc. v. Charles River Labs. Inc.*, 2016 WL 3647971, at *1 (D. Del. July 7, 2016).

In doing so, these courts may have undercut *Enfish* to some degree. Thus far, courts have skipped step one in cases where there is no “clear-cut” answer on “abstractness.” This is already an expansion of *Enfish*; the Federal Circuit only suggested skipping step one if there is a “close call.” It is so far unclear whether this is a distinction without a difference, or if district courts will increasingly use the “close call” loophole to avoid the step one inquiry altogether.

Perhaps sensing this problem, the Federal Circuit provided further guidance on the difference between step one and step two. In *Electric Power Group*, 2016 WL 4073318, at *3, the Federal Circuit acknowledge the overlap inherent in the *Alice* inquiry, and recognized *Enfish*’s suggestion that courts skip step one in close cases. But the court made clear that *Alice*’s two stages involved different inquiries. The first stage of the *Alice* inquiry looks “at the ‘focus’ of the claims, their ‘character.’” *Id.* The second stage “look[s] more precisely at what the claim elements add — specifically, whether ... they identify an ‘inventive concept’ in the application of the ineligible matter.” *Id.* The court in *Electric Power Group* applied this test to invalidate the patent-in-suit, which claimed a computer program that aggregated, organized, and analyzed data using a generic computer. The court reasoned that courts have long found the collection and analysis of data is an abstract idea at *Alice* step one. At *Alice* step two, the court found no “inventive concept” because the patent did not involve anything other than “off-the-shelf, conventional computer, network, and display technology.” *Id.* at *5.

Few Cases Follow *Enfish* to Find a Claim Nonabstract at Step One

Thus far, only a handful of cases have relied on *Enfish* to support patent eligibility during the first step of the *Alice* inquiry. Generally, these cases have focused on whether the claims are directed to a technical improvement of a computer or the design of a system.

A Michigan district court provided the first such example in *JDS Techs. Inc. v. Exacq Techs.*, 2016 WL 3165724 (E.D. Mich. June 7, 2016). The patent claims in *JDS* were directed to software for a user interface program that obtained the MAC addresses of peripheral devices and used those addresses to determine whether to enable or disable the display of video. The aim of the invention was to allow the software to be licensed effectively but be sharable without traditional anti-piracy protections. In addition to highlighting that the claims recited specific nongeneric structure, including video servers and cameras, the court found that the invention “provided a solution to a computer-related technological challenge ... within [a] particular computer network environment[]” and was thus patent-eligible.

In *Audio MPEG Inc. v. HP Inc.*, No. 2:15-cv-00073 (E.D. Va. June 29, 2016) (slip copy), another district court considered claims directed to equipment that encoded and decoded audio data in a manner important to the ubiquitous MPEG audio standard. Citing *Enfish*, the court found that the claims were not directed to an abstract idea as they solved a computer-specific problem: they enabled more efficient data storage than would be possible without compression. It therefore appears *Enfish* succeeded in making inventions directed to improvements in electronic processing and storage a small but potent oasis in the desert of unpatentable subject matter.

The court in *Orbcomm Inc. v. CalAmp Corp.*, 2016 WL 3965205 (E.D. Va. July 22, 2016), examined claims directed to a system for monitoring the location and status of fleets of construction equipment vehicles using GPS. The defendant asserted that the claims merely computerized an abstract idea: the tracking of construction equipment. Defendants also noted that the claims pointed to “unspecified processing equipment” such as transponders, satellites and ground stations. The court ultimately found that the claims taught an innovative construct beyond a simple generic computer. However, the court noted it was a “close issue” and indeed one can imagine how another court on slightly different facts may have found the claims simply covered the computerization of long-standing business practices or generic computer components. It will be interesting to see how this case fares on these issues in any eventual appeal.

Finally, the court in *Iron Gate Security Inc. v. Lowe’s Companies Inc.*, No 15-cv-8814 (S.D.N.Y. Aug. 3, 2016)(slip copy) reviewed claims directed to “methods and apparatus for instantly indexing multimedia data associated with real time events for analysis and retrieval.” On a motion to dismiss, the court found these claims eligible under both steps of the Alice test. The court summarized its understanding of step one as to whether the claims address a specific solution to a specific problem:

Having considered *Enfish*, the other cases that have applied Alice, and the policy reasons for excluding claims directed to abstract ideas from eligibility, it is clear that the main thrust behind step one is to determine whether the claim moves beyond a long-understood concept or simply seeks to monopolize one by masking it through the medium of technology. To resolve this question, a court must define the idea, and then ask whether that idea, in all of its generic permutations, essentially constitutes the invention, or whether the invention is to accomplish the abstract idea in a particular way. A court must, in other words, ask whether the claims are directed to a specific implementation to a solution to a problem. The point is not to deem ineligible any task or concept that can possibly be envisioned or performed by the human mind.

Id. at 18. Interestingly, the court found that “[e]ven if the ‘inventive’ aspect of the ‘693 Patent is just that it combines and re-organizes a collection of processes and concepts existing in the prior art, that does not mean the claims are directed to an abstract idea ineligible for patent protection.” *Id.* at 26. Instead, the court relied on the patent’s specification to find that it presents concrete, technical solutions to the perceived problems in the prior art. *Id.* at 27.

Each of these decisions was rendered on a motion to dismiss under Fed. R. Civ. P. 12(b)(6), though it is yet to be clear whether the limited record available in such instances has impacted jurists’ conclusions under the first prong of the Alice inquiry.

Software Claims Directed to Business/Economic Concepts Continue to Fare Poorly

Nonetheless, the majority of patents facing eligibility challenges following *Enfish* continue to fare poorly. In particular, software claims directed to business and economic concepts continue to fail at both the first and the second steps of the Alice inquiry.

In *GoDaddy.com LLC v. RPost Communications Ltd.* 2016 WL 3165536 (D. Ariz. June 7, 2016), the court applied *Enfish* to two patents. In the first, the claims were directed to a system for communicating and receiving electronic messages using a third-party intermediary. At bottom, the court found that the claims were a computerization of a third-party courier, “an abstract idea that has an extensive history dating back decades, if not centuries.” The claims merely organized data using “mathematical associations” that

could be performed manually — something akin to an unpatentable mental process. This was nothing more than “a method of collecting and providing information about a dispatch and its contents using a third-party intermediary,” and as a result, the invention “falls squarely within the ‘collection and organization of data’ characterization deemed by the Federal Circuit to be abstract.” The court distinguished *Enfish*, noting that the claims did not seek to improve computer functionality, but instead “simply recite conventional and generic technology to perform ‘generalized steps’ in a well-known computer environment.” The court also looked to the specification, noting that the fact it painted in broad strokes — claiming “any” relevant technology — further illustrated a “lack of specificity [that] underscores the abstract nature of the claims.” Under the second step of the *Alice* test, the court found the claims failed to add “significantly more,” as they did not cause an improvement in technology.

The court also struck down the second patent at issue in *GoDaddy.com*, which was directed to verifying whether an email is opened without the recipient’s cooperation. The court invalidated the patent because it is directed to the abstract idea of “collecting and providing information about the opening of a message.” In offering some guidance on the distinction between the two steps of the *Alice* test, the court stated that whether or not the recipient “cooperates” (i.e., the “novelty” of verification without cooperation of the recipient) is not relevant to the determination of an abstract concept in step one, but is only relevant whether the claims add an inventive concept under step two. Implementing the guidance from *Enfish*, the court argued that, at its core, the first step of *Alice* is to “ask whether the claims are directed to an improvement in computer functionality versus being directed to an abstract idea.”

In *Open Parking LLC v. ParkMe Inc.*, 2016 WL 3547957 (W.D. Pa. June 30, 2016), another district court considered claims directed to a system for monitoring and reporting open parking spaces to users’ mobile devices. The court, in evaluating patent eligibility under the first step, used the “pen and paper” framework to determine abstractness, arguing that substantially real-time data regarding available parking spaces could be performed manually, such as by a parking attendant and a sign. Therefore, the claims were directed to moving data from one place to another, which boils down to the abstract idea of organizing human activity. Tellingly, the court cited *Enfish* and its predecessors to acknowledge the uphill battle faced by such inventions: “fundamental economic and conventional business practices are often found to be abstract ideas, even if performed on a computer.”

Finally, in *Lendingtree LLC v. Zillow Inc.*, 2016 WL 3974203 (Fed. Cir. July 25, 2016), the Federal Circuit, citing *Enfish*, reiterated that though a definitive standard for what is an “abstract idea” does not exist, it is “sufficient to compare claims at issue to those claims already found to be directed to an abstract idea” and, as a result, business and economic practices are often found to be abstract. The claims, directed to a loan-application clearinghouse for coordinating loans, fell squarely within the realm of a fundamental economic practice, making them abstract.[2]

Conclusion

To be sure, *Enfish* and its progeny have not removed abstractness as a daunting issue for software patents. However, the decision and its progeny start to cut a path to avoid the difficult second prong of the *Alice* inquiry by showing that the patent covers a technical solution, rather than an “abstract idea” that is ineligible for patent protection.

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[1] Westlaw lists 25, but some decisions found in this article such as Audio MPEG Inc. v. HP Inc. and Iron Gate Security Inc. v. Lowe's Companies Inc., *infra*, are yet to be picked up in Westlaw.

[2] Interestingly, two of the above decisions used statements from the specification to support a lack of patent eligibility. In *GoDaddy.com*, the court relied on the specification's disclosure regarding the history of third party couriers to support its "abstract" determination, as well as the disclosure that the invention includes "all types" of information. Additionally, in finding the second patent abstract, the *GoDaddy.com* court relied on the specification's admission that the patent did not require any special email software. In *Lendingtree*, the court concluded there was an absence of "significantly more" under step two of *Alice*, since the specification indicated that "the aim of the invention is speeding up the loan-application process by enabling borrowers to avoid 'physically going to or calling each lender and filling out an application,'" thereby signaling that no technological problem was being addressed.