

Innovations in computer technology now largely reside in software, not the hardware that runs the software. Concurrently, a debate has persisted on whether software should be patent-eligible. The Federal Circuit in *Enfish LLC v. Microsoft Corp.* recently spoke on this topic and held unequivocally that software can be as patent-eligible under 35 U.S.C. 101 as the hardware that runs the software. *Enfish* is also the first Federal Circuit decision to hold that a software patent was not directed to an abstract concept since the US Supreme Court invalidated as patent-ineligible a software patent in *Alice v. CLS Bank*.

Looking beyond *Enfish's* approval of software patenting, does this decision offer specific guidance on how to distinguish a patent claim directed to an improvement in computer technology from one directed to a concept that uses a computer, but only as a tool? The former is eligible for patent, the latter is not. The Supreme Court's two-part test for eligibility under Section 101, first introduced in *Mayo v. Prometheus* and later applied to software patents in *Alice*, is intended to distinguish between the two. All cases prior to *Enfish* characterized a software claim as abstract under this test. This piece explains why the Federal Circuit treated the *Enfish* software claims differently and offers thoughts on how *Enfish* might influence future decisions on the patent-eligibility of a software claim.

Alice/Mayo Test

Step one of the Alice/Mayo two-part test asks whether a claim is directed to an abstract concept. If the answer is yes, the claim is patent-ineligible unless, under step two, there is significantly more to the claim than the patent ineligible abstract concept. Step one reflects a concern over patents that would preempt all future applications of the abstract concept. Under step two, this fear is balanced against the reality that all inventive endeavors, at some level, apply an abstract concept.

The preemption fear underlying step one is particularly acute with patents covering software-implemented inventions. The patent claims can give the appearance of an invention directed to an improvement in technology. Yet, the patent, particularly when mostly conventional computer functions are claimed, can also tie up (preempt) with the patent grant future, undeveloped technology – that is, monopolize ideas – disproportionately to the new technology it teaches. The Alice/Mayo test is intended as a guard against the grant of such patents, the claims of which are directed to “abstract concepts.”

Enfish

The *Enfish* patent describes software for organizing data into logical tables. A key feature of the patent claims is that data is organized using a “self-referential” table format. The district court was asked to decide whether these claims are directed to an abstract concept. To this end, the court framed the step one inquiry as one of determining the ‘general purpose’ of the claims. The claimed software logic was treated as irrelevant to this inquiry. Not surprisingly, the court then rather quickly concluded that the claims were directed to the abstract idea of storing data in logical tables. Additionally, the court took the view that a “logical table” – a commonly understood term in the software arts – further demonstrated the abstractness of the claim.

The Federal Circuit, in its reversal of the lower court decision, responded with disapproval to both these aspects of the lower court's decision. First, contrary to the adopted “general purpose” of the claim approach, the first question to ask under step one is whether the focus of the claims is directed to the asserted improvement in computer capabilities. Second, software concepts like “logical table” are not inherently abstract and indeed form the basis for many of the advancements in computer technologies, just as do advances in computer hardware. Software improvements as such should therefore be treated on equal footing, for purposes of Section 101, as improvements in computer hardware.

Applying these principles, the Federal Circuit found that the district court inappropriately generalized the claims' purpose and, in doing so, oversimplified the central feature of invention: a self-referential table. The claims were not directed to any format for storing data, as the district court had concluded, but instead a self-referential table format. This view of the claims was informed primarily by the specification. In the court's view, the claimed “self-referential table” concept was essential to any characterization of the claims, because the specification expressed the concept of a self-referential table as synonymous with the invention itself and an improvement over pre-existing logical tables. In support of this view, the court quotes the patent specification's assertions of how the self-referential table format improves upon pre-existing data structures and also that those prior data structures were inferior to it.

The court sums up its views of the claims by referring back to the concerns expressed in *Alice/Mayo* over software patents claiming abstract ideas. In dismissing these concerns, the court again emphasizes how the specification's focus of attention is on improving database structures, again referring to the specification's criticism of the prior art database structures and how the invention's objectives are reflected in claim limitations drawn to a self-referential table. This patent content sufficiently demonstrated that there was no intent to claim an abstract concept. According to the court, nothing more was needed to prove patent-eligibility.

Within a week of deciding *Enfish* the Federal Circuit in *TLI Communications v. AV Automotive* invalidated as patent-ineligible claims for a digital media storage and classification system. The decision is useful to this discussion because it applies the *Enfish* approach to the step one inquiry and confirms *Enfish's* principle holding. The *TLI* court asks whether the patent claims are directed to an improvement in computer functionality. To answer this question, the court then turns to the specification, as was done in *Enfish*, for clues on what motivated the inventors to invent. The court found that the inventors were concerned with providing a system for classifying and storing digital images between a server-computer and camera phone, not solving a technical problem of how to combine these components. The claims therefore were not directed to a patent-eligible improvement in computer functionality, but instead addressing a need expressed (in the specification) as the idea or concept of storage and classification of digital images, which is abstract.

Conclusion/Observations

Enfish, as confirmed by *TLI*, holds that a relevant step one inquiry is to ask “whether the claims are directed to an improvement in computer functionality.” One could also say *Enfish* stands for the view that the focus of a patent claim can be revealed by an invention described in terms of the prior art it improves on. Thus, a specification’s discussion of the prior art, should that prior art be tied directly to the asserted technical problem addressed in the claims, could go a long way to informing a court that a claim is indeed directed to patent-eligible subject matter. This view is based on *Enfish's* emphasis, more than once, on the manner in which the patent specification explains the invention as an improvement over, or in terms of disparaging statements made about the prior art logical tables, i.e., the prior art computer technology. As mentioned earlier, the *Alice/Mayo* court devised step one of its test out of a concern for patents asserted as an improvement in technology, but directed to patent-ineligible abstract concepts. The *Enfish* court refers to the patent specification’s statements concerning the prior art computer technology when it concludes that these concerns from *Alice/Mayo* are not present. The *Enfish* specification’s prior art discussion therefore seems particularly important to the decision.

On the other hand, it is debatable whether *Enfish* can serve as a guiding light for distinguishing patent-eligible from abstract concepts in software. True, the case affirmatively states that improvements in the purely software art is patent-eligible under Section 101 and software solutions to problems are not to be ignored in the step one analysis. This much was not certain – at least at the district court level – prior to *Enfish*. And while there is at least one notable takeaway from the case, it seems likely that the Federal Circuit will continue to tread lightly on further developing, or clarifying this area of the law. The Section 101 law that defines abstract categories of patent subject matter is now mostly reserved for the Supreme Court.

Indeed, the *Enfish* court may even have signaled that its decision should not be read as an intent to begin defining boundaries between patent-eligible and abstract concepts. After reaching its conclusion on patent-eligibility the Court addresses other situations:

“[T]here may be close calls about how to characterize what the claims are directed to. In such cases, an analysis of whether there are arguably concrete improvements in the recited computer technology could take place under step two [of *Mayo*.]”

That is, when a tribunal cannot decide whether an abstract idea is claimed, Section 101 compliance can instead be decided by assuming it is, then testing whether an inventive concept is present in the claim (step two of the *Alice/Mayo* test). As it turns out, this manner of conducting the Section 101 analysis – i.e., skipping step one – is not new. The Federal Circuit’s opinion in *DDR Holdings v. Hotels.com* reached a decision in this way. *DDR* did not first decide whether the claim was directed to an abstract concept. Instead, it held that the claim, even if directed to an abstract concept, was patent eligible under step two. Thus, another takeaway from *Enfish* may be that, when faced with making a “close call,” look to *DDR* for guidance.

As for the US Patent and Trademark Office’s examination of software applications, it is unlikely *Enfish* will have any impact. The Federal Circuit easily found in favor of patent-eligibility due to the nature of the patent. The USPTO would reach the same conclusion if the *Enfish* patent application was examined today. The patent is concerned only with the drawbacks of existing data structures and a computer’s inefficiencies in accessing data in memory using the prior art logic. In other words, the patent speaks directly to, and in the language of a computer programmer or software engineer. Software patents of this variety are routinely found compliant with Section 101.

This article first appeared on Law360, part of Portfolio Media Inc., on June 16, 2016.

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