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A SPRING THAW IN THE AVAILABILITY OF PATENTS FOR SOFTWARE INVENTIONS?

Patent lawyers, strategists, entrepreneurs and investors in software and Internet enterprises are acutely aware of “the *Alice* problem.” The Supreme Court’s 2014 decision in *Alice Corp. v. CLS Bank International* caused a chill in the granting and sustaining of patents for software. It did so by holding inventions directed to “abstract ideas” patent-ineligible under section 101 of the Patent Act if only implemented by generic functions of generic computers. Valuation of software patents has suffered, and interest in pursuing them has flagged.

However, there is the hint of a thaw.

On May 6, 2016, the USPTO posted a second set of updates to the 2014 Interim Guidance for its examiners regarding [how to apply the 101 filter](#), addressing many industry criticisms. On May 12, the Federal Circuit Court of Appeals, which considers all patent appeals, handed down *Enfish, LLC v. Microsoft Corp.* This was only its second decision after *Alice* in which it reversed a lower court finding of 101 ineligibility.

The patenting of software has had a complex history. In 1972, the Supreme Court held in *Gottschalk v. Benson* that a hardware implementation of binary-coded-decimal-to-binary conversion was not a patent-eligible “process” (deemed to require physical transformation) under section 101. The Court maintained that such a patent would impermissibly pre-empt the use of a “mathematical algorithm.” Through the 1970s into the 1990s, patent practitioners struggled mightily to recite non-trivial physical transformations in software patent claims to avoid *Benson* and meet the 1981 *Diamond v. Diehr* physical transformation considerations that supported patent eligibility for a rubber-curing process employing a “mathematical formula.”

After *Lotus Development Corp. v. Borland International* (1996), which ruled that the command structure of Lotus 1-2-3 was not copyrightable to prevent interoperability, the USPTO and the lower courts continued a trend to relax eligibility requirements for software patents. The Federal Circuit in its 1998 *State Street Bank & Trust v. Signature Financial Group* found a “business method” of a hub-and-spoke organization of mutual funds to be patent-eligible. With the rise of the Internet, many applications were filed for Internet-enabled businesses. The Christmas season 1999 issue of a preliminary injunction in *Amazon.com v. BarnesAndNoble.com* (alleged infringement of a patent on “one-click” Internet purchase) set off a gold rush of applications.

After nearly a generation of tolerance of patentability of broad subject matter, the Supreme Court began to push back. In 2006 several Justices criticized business method patents used by entities who demanded money for rather than practice the patents (pejoratively called “trolls”). Through a series of decisions finding patent-ineligible claims to medical diagnostics by correlation of natural

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conditions (2012), purified but naturally occurring DNA (2013) and a computer-implemented process for mitigating settlement risk by using a third-party intermediary (*Alice* 2014), the Supreme Court developed its current two-step “*Mayo/Alice* test” for subject matter eligibility:

- (i) if a claim is “directed to” laws of nature, natural phenomena or abstract ideas, which are not permitted to be pre-empted by patent, it is eligible for patenting only if...
- (ii) it claims “something more” (an “inventive concept”) sufficient to “transform” it such that it does not “disproportionately [tie]-up” or pre-empt the prohibited subject matter.

The *Alice* Court found the claim before it was directed to an abstract idea, “a fundamental economic practice long prevalent in our system of commerce.” It further found that the claim, reciting implementation by generic functions of a generic computer did not add enough to make it patent-eligible.

The *Mayo/Alice* test is considered by many practitioners to be vague. USPTO examiners have challenged many applications involving claims to combinations of generic software functions to implement objectives that might be considered to be abstract. It may be speculated that the Federal Circuit’s 2014 decision in *Oracle USA v. Google Inc.* (application program interfaces copyrightable, rejecting *Lotus*) increased copyright protection in compensation for the loss of patent protection for software.

The USPTO updates and the Federal Circuit’s *Enfish* decision provide some hope and guidance for software inventors and investors.

Previously, in 2014 *DDR Holdings, LLC v. Hotels.com, L.P.*, the majority of a Federal Circuit panel found that creating a hybrid webpage with third-party content (merchandise to be sold) to match the look-and-feel of the referring webpage was not an abstract idea such as the “store-within-a-store” seen by the dissent. In any case, the claim claimed “something more” in solving a uniquely Internet problem in a non-standard way.

In *Enfish*, a unanimous panel rejected the district court’s view that the claims of a “self-referential database” (as distinguished from the now-common relational database) was directed to an abstract idea of “the concept of organizing information using tabular formats.” The court found instead that claims of the generation of internal references between logical rows and columns were “directed to a specific improvement in the way computers operate.” That these operations were virtual, using generic functions of a general purpose computer without any of the physical transformations required in the *Diehr* era, did not make the claims patent-ineligible or require inquiry beyond step one of the *Mayo/Alice* test.

The take-away is that the availability of patents for software solutions may turn on claiming the “technological” improvement in the operation of the computer or network. Tracking where information is stored or buffered and its path physically or logically through a computer or network may identify patent-eligible improvements that may be obscured by high-level (abstract) object-oriented programming.

The cost and risk of pursuing this protection should be considered with the alternative or parallel trade secrecy and copyright protection. Notwithstanding the increased protection by the American Invents Act of 2011 of inventions held in secret and the May 11 signing into law of the federal Defend Trade Secrets Act of 2016, public-facing functionality of software platforms cannot be reliably protected by trade secrecy. Despite a swing back to broader protection of software platforms by copyright in the 2014 *Oracle* decision, copyright only protects against copying of the human expression of an idea, not of functionality. Patents remain important to protecting public-facing functionality.

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