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Practice Group(s):**IP Procurement and
Portfolio
Management****IP Litigation**

What Is Next for Software Patents?

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Over the past few weeks, the United States federal courts and the patent office have issued several significant decisions addressing the patent subject matter eligibility of software-related inventions in the United States.¹ In *CLS Bank Int'l v. Alice Corp. Pty. Ltd.*, the Federal Circuit, sitting *en banc*², wrestled with the subject matter eligibility of a software-directed claim and failed to produce a majority opinion. After *CLS*, a three-judge panel of the Federal Circuit decided *Ultramercial, Inc. v. Wildtangent, Inc.*, which found the software-implemented method claims at issue to be patent eligible. Between *CLS* and *Ultramercial*, the Patent Trial and Appeal Board ("PTAB") decided *SAP Am. v. Versata Dev. Grp.*, in which the PTAB ruled that the software-directed claims at issue did not recite eligible subject matter.

In the long term, these decisions may prompt clarification of the law regarding the patent eligibility of software-related inventions. In the short term, however, the decisions have created an environment of uncertainty and no shortage of hyperbolic commentary.³ For stakeholders who deal with software-related patents, however, a measured reaction is in order. As we will show, the standard for determining the patent eligibility of software-related inventions is currently uncertain and appears likely to shift in a way that excludes at least some software-related inventions. At the same time, reports of the demise of all software patents are probably exaggerated. We will describe background helpful for understanding the decisions, examine the decisions themselves, and also explore options that portfolio managers can evaluate when seeking to enhance the value of their software patents in view of the recent developments.

What is Subject Matter Eligibility?

The decisions referenced above all address the subject matter eligibility of software-related inventions, that is, whether certain software-related inventions are the types of inventions that may be patented. To properly understand subject matter eligibility, it should be considered in the context of the other requirements for patentability.⁴ Some readers will recall that a patentable claim must recite subject matter (*i.e.*, an invention) that is both novel and nonobvious.⁵ A claim that is novel recites subject matter that is not taught by any single prior art reference.⁶ A claim that is non-obvious recites subject matter that would not have been obvious to one having ordinary skill in the technology at the time of the invention and in view of the prior art.⁷ Patent subject matter eligibility is a requirement for patentability that is in addition to novelty and non-obviousness. A claim is patentable only if it is

¹ *CLS Bank Int'l, et al. v. Alice Corp. Pty. Ltd.*, 2013 U.S. App. LEXIS 9493 (Fed. Cir. May 10, 2013) (*en banc*), *Ultramercial, Inc. v. Wildtangent, Inc., et. al.* No. 2010-1544, slip opinion (Fed. Cir. 2013), *SAP Am. v. Versata Dev. Grp.*, No. CBM2012-00001, slip opinion (P.T.A.B. 2013).

² *En banc* means that all of the judges on the court heard the case instead of the typical panel of three judges.

³ See Gross, Grant, "Appeals court ruling could be the 'death' of software patents," PC World, May 10, 2013, viewed at <http://www.pcworld.com/article/2038499/appeals-court-ruling-could-be-death-of-software-patents.html>, Lee, Timothy B., "One of the worst patents ever just got upheld in court," Washington Post, June 24, 2013, viewed at <http://www.washingtonpost.com/blogs/wonkblog/wp/2013/06/24/one-of-the-worst-patents-ever-just-got-upheld-in-court/>.

⁴ See, e.g., 35 U.S.C. §§ 102, 103, 112.

⁵ This list of patentability requirements is not exhaustive. See, e.g., 35 U.S.C. § 112.

⁶ 35 U.S.C. § 102.

⁷ 35 U.S.C. § 103.

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novel, non-obvious, and directed to eligible subject matter. If a claim does not recite eligible subject matter, then it is not patentable regardless of whether it is novel and non-obvious. Similarly, if a claim lacks novelty or obviousness, it is not patentable regardless of whether it is directed to eligible subject matter.

Under the patent statute, eligible subject matter includes four general categories of inventions: processes, machines, manufactures, and compositions of matter.⁸ Courts have interpreted these categories to exclude claims that are directed to nothing more than laws of nature, natural phenomena, or abstract ideas.⁹ It is the abstract idea exclusion that frequently arises in software patent cases, including the *CLS*, *SAP*, and *Ultramercial* cases. Specifically, these decisions address what types of software-related inventions are directed to more than simply an abstract idea and, therefore, patent eligible.

How did we get here?

Since about the mid-1990s, the federal courts and the patent office have generally agreed that software-related claims are patent eligible, provided that the claims are limited to a programmed computer or a process implemented by computer hardware.¹⁰ This consensus was disturbed in 2012 when the Supreme Court decided *Mayo v. Prometheus*.¹¹ In *Mayo*, the Supreme Court found that claims addressing a method for medical treatment¹² were directed to ineligible subject matter because they preempted a natural phenomenon. The Court held that a patent-eligible claim must do more than simply describe a law of nature, natural phenomenon, or abstract idea, and then instruct a practitioner to “apply it.”¹³ Instead, a patent-eligible claim must also recite “an ‘inventive concept’ sufficient to ensure that the patent in practice amounts to significantly more than a patent on the natural law itself.”¹⁴ Although *Mayo* dealt with a method of medical treatment and the natural law exception, the Supreme Court made clear that its holding applied to software by instructing the Federal Circuit to revisit an earlier software subject matter eligibility decision in view of *Mayo*. This was the *Ultramercial* case, which will be discussed below.¹⁵

The CLS Case¹⁶

Shortly after the *Mayo* decision, the Federal Circuit vacated its previous decision in *CLS Bank Int’l v. Alice Corp.* and agreed to rehear the case *en banc*. The patents at issue in the case included claims for methods, systems (e.g., programmed computers) and computer-readable media for reducing risk to parties involved in a financial transaction. In the vacated panel decision, a three-judge panel found that Alice Corp.’s patents satisfied the subject matter eligibility requirements.¹⁷ In the order granting the *en banc* rehearing, the court requested briefing on the following questions related to the patent eligibility of common software-related claims:

⁸ 35 U.S.C. § 101.

⁹ *CLS Bank*, 2013 U.S. App. LEXIS 9493, *17, *Ultramercial*, No. 2010-1544, at 10.

¹⁰ The patent office and the courts have used different tests and analyses over the years to achieve this basic result. See *In re Alappat*, 33 F.3d 1526 (Fed. Cir. 1994), *State Street Bank & Trust Co. v. Signature Fin. Grp.*, 149 F.3d 1368 (Fed. Cir. 1998) (establishing the useful, concrete, and tangible result test), *Bilski v. Kappos*, 130 S. Ct. 3218 (2010) (holding that the machine-or-transformation test is a “useful and important clue” for determining subject matter eligibility).

¹¹ *Mayo Collaborative Serv., et al. v. Prometheus Lab., Inc.*, 132 S. Ct. 1289 (2012).

¹² See *Mayo*, 132 S. Ct. 1289, 1294.

¹³ See *id.*

¹⁴ See *id.*

¹⁵ See *WildTangent, Inc., et al. v. Ultramercial, LLC, et al.*, 132 S. Ct. 2431 (2012).

¹⁶ *CLS Bank Int’l, et al. v. Alice Corp. Pty. Ltd.*, 2013 U.S. App. LEXIS 9493 (Fed. Cir. May 10, 2013) (*en banc*).

¹⁷ See *CLS Bank Int’l. v. Alice Corp. Pty. Ltd.*, 685 F.3d 1341 (Fed. Cir. 2012) (vacated).

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- a. What test should the court adopt to determine whether a computer-implemented invention is a patent ineligible “abstract idea”; and when, if ever, does the presence of a computer in a claim lend patent eligibility to an otherwise patent ineligible idea?
- b. In assessing patent eligibility under 35 U.S.C. § 101 of a computer-implemented invention, should it matter whether the invention is claimed as a method, system, or storage medium; and should such claims at times be considered equivalent for § 101 purposes?¹⁸

In its *en banc* decision released on May 10, 2013, the Federal Circuit failed to provide clear answers to these important questions. Instead, the court fractured, releasing seven separate opinions with no opinion or rationale supported by a majority of the judges. Ten judges reheard the case *en banc*, and they split 7-3 on the subject matter eligibility of the method and computer-readable medium claims (7 finding they were not patent eligible), and split evenly—5 to 5—on the system claims, which were directed to programmed computers.

Because of the court’s fracture, it failed to establish an authoritative framework for assessing the patent eligibility of software patents. The divided court, however, provided two potential frameworks for determining the subject matter eligibility of software related claims. A first framework, presented in a concurring opinion written by Judge Lourie, focuses on determining whether a claim preempts an abstract idea. A second framework, presented in an opinion by Judge Rader, focuses on determining whether a claim, as a whole, was limited to a particular application of an abstract idea. Because neither of these opinions was joined by a majority of the court, these frameworks are merely *dicta*¹⁹ and do not necessarily apply to future decisions of the Federal Circuit or other courts. Nonetheless, they provide an indication of where the law might go.

Judge Lourie’s Framework

The Lourie opinion, which received five votes, set forth a two-part test determining subject matter eligibility. The first step is to “identify and define whatever fundamental concept [abstract idea] appears wrapped up in the claim so that the subsequent analytical steps can proceed on a consistent footing.”²⁰ The concept may be narrow in scope or quite broad in scope, and the opinion noted that the breadth of “acceptable exclusion” may vary accordingly.²¹

The second step is to assess whether the claim preempts use of the abstract idea. In doing so, Judge Lourie’s opinion separates the abstract idea from the remaining claim limitations and examines the remaining claim limitations to see what they add. “With the pertinent abstract idea identified, the balance of the claim can be evaluated to determine whether it contains additional substantive limitations that narrow, confine, or otherwise tie down the claim so that, in practical terms, [the claim] does not cover the full abstract idea itself.”²² The opinion states that the “preemption analysis centers on the practical, real-world effects of the claim.... [Claim] limitations that ... are merely tangential, routine, well-understood, or conventional, or in practice fail to narrow the claim relative to the fundamental principle therein, cannot confer patent eligibility.”²³ The opinion further explains that the analysis of patent eligibility “considers whether steps combined with a natural law or abstract idea are

¹⁸ *CLS Bank*, 2011-1301 (slip order) (Fed. Cir. 2011).

¹⁹ *Dicta* is language in a court’s opinion that is not law and is not binding on future courts.

²⁰ *CLS Bank*, 2013 U.S. App. LEXIS 9493, *32.

²¹ *Id.* at *32 - *33 (citing *Mayo*, 132 S. Ct. at 1302-03 for additional explanation).

²² *Id.* at *33.

²³ *Id.* at *36.

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so insignificant, conventional, or routine as to yield a claim that effectively covers the natural law or abstract idea itself.”²⁴

The five judges who joined Judge Lourie found that, under this framework, none of the claims were patent eligible. The method of the process claims reduced risks involved with execution of a transaction between or among parties using a form of escrow. The method claims specified that a supervisory institution monitors credit and debit records as maintained by the parties’ respective institutions and controls which of the financial transactions occurs by instructing the parties’ respective institutions to debit or credit sums associated with the transaction. If the value of a party’s deposits is insufficient to carry out a particular transaction, the supervisory institution would not permit the transaction to occur. The supervisory institution would instruct the respective parties’ institutions to process that day’s transactions as authorized by the supervisory institution. Judge Lourie’s opinion identified the abstract idea associated with the method as the “concept of reducing settlement risk by facilitating a trade through third party intermediation.”²⁵ The opinion then moved to the issue of “whether the balance of the claim adds ‘significantly more’ ” and concluded that it did not.²⁶

Judge Lourie’s opinion identified three activities beyond the abstract idea expressed in the method claim: (1) the requirement for computer implementation, (2) the requirement that the supervisory institution create shadow records, and (3) the requirement that the supervisory institution issue instructions to the exchange institutions.²⁷ Judge Lourie concluded that none of these specified “enough” beyond the abstract idea itself to constitute patent-eligible subject matter.²⁸

Judge Lourie’s opinion also found that the computer-readable medium claims were essentially equivalent to the method claims and are “merely method claims in the guise of a device”²⁹ This opinion also notes the general proposition that the patent eligibility of each claim is normally to be considered separately, on a claim-by-claim basis.³⁰ However, the opinion indicates that the conclusion that method claims are not patent eligible can be applied to other claims such as computer-readable medium claims because “discrete claims reciting subject matter only nominally from different statutory classes may warrant similar substantive treatment under Sec. 101 when, in practical effect, they cover the same invention.”³¹

Judge Lourie’s opinion noted again that eight judges had agreed that the claimed data processing system would stand or fall with the other claims³² despite clearly being directed to a machine (i.e., a programmed computer), one of the four classifications of patent-eligible subject matter specified in the patent statute. The opinion also expressed the view that there was “no reason to view the computer limitation as anything but ‘insignificant post-solution activity’ relative to the abstract idea.”³³ Furthermore, simply appending generic computer functionality to lend speed or efficiency to the performance of an otherwise abstract concept does not meaningfully limit claim scope for purposes of patent eligibility....³⁴ The opinion notes that the “system claims are ... akin to stating the abstract

²⁴ *Id.* at *38 - *39.

²⁵ *CLS Bank*, 2013 U.S. App. LEXIS 9493, *44.

²⁶ *Id.* at *44 - *45.

²⁷ *Id.* at *45.

²⁸ *Id.*

²⁹ *Id.* at *52.

³⁰ *Id.*

³¹ *Id.*

³² *CLS Bank*, 2013 U.S. App. LEXIS 9493, *53.

³³ *Id.* at *45.

³⁴ *Id.* at *45 - *46.

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idea of third-party intermediation and adding the words: ‘apply it’ on a computer.”³⁵ Tellingly, the opinion did suggest that claims reciting essential or improved computer technology would be subject matter eligible.³⁶

Finally, in addressing whether a computer is usually patent-eligible subject matter, Judge Lourie’s opinion emphasized that the issue was not whether a computerized system is patent eligible but “whether a *patent claim* that ostensibly describes ... a system on its face [is] something more than an abstract idea in legal substance.”³⁷ Contrary to Alice Corp.’s arguments, Judge Lourie found that the system claims did not have sufficient additional substantive limitations to qualify as patent-eligible subject matter.

Judge Rader’s Framework

Chief Judge Rader wrote the opinion of four judges who would have held that the system claims at issue were patent-eligible subject matter.³⁸ Judge Rader’s opinion used a different approach to assess whether a claim is drawn to an abstract idea. The four judges viewed the system claim as a whole (rather than removing claim parts defining the abstract idea and examining what is left as was done in the concurring opinion of five judges)³⁹ to assess “whether a claim includes *meaningful* limitations restricting it to an application, rather than merely an abstract idea.”⁴⁰ These judges defined an abstract idea as “one that has no reference to material objects or specific examples – *i.e.*, it is not concrete.... [T]he question for patent eligibility is whether the claim contains limitations that meaningfully tie [an abstract] idea to a concrete reality or actual application of that idea.”⁴¹ These judges further emphasized that a claim must not cover every practical application of the abstract idea in order to be patent eligible under 35 U.S.C. Sec. 101.⁴²

In applying this approach, Judge Rader’s opinion reasoned that a computer must be viewed as a new machine when the computer includes new software.⁴³ The opinion noted how the computer’s hardware could easily be customized to provide a new computer dedicated to a particular task,⁴⁴ and that there would be no question of patent eligibility for a computer with its circuitry designed for that dedicated task.⁴⁵ The opinion expressed great concern that “[l]abeling this system claim an ‘abstract concept’ wrenches all meaning from those words, and turns a narrow exception into one which may swallow the expansive rule (and with it much of the investment and innovation in software).”⁴⁶

Other opinions accompanying the court’s decision provided additional analytical frameworks or addressed points made in those opinions. However, nine of the ten judges held one or the other of the two analytical frameworks discussed above.

³⁵ *Id.* at *60.

³⁶ *Id.* at *45.

³⁷ *Id.* at *61.

³⁸ *CLS Bank*, 2013 U.S. App. LEXIS 9493, *63. Judge Rader and one other judge, Judge Moore, also found the method and computer readable medium claims not to be patent eligible for failure to recite any computer limitations. However, two other judges who joined with Judge Rader on the system claims – Judges Linn and O’Malley – found that all of the claims (method, system and computer readable medium) satisfied the subject matter eligibility requirements.

³⁹ *See id.* at *80 - *82, *92 - *94 and compare to *id.* at *32 - *33.

⁴⁰ *Id.* at *84 - *85.

⁴¹ *Id.* at *85.

⁴² *Id.* at *88.

⁴³ *CLS Bank*, 2013 U.S. App. LEXIS 9493, *101.

⁴⁴ *Id.* at *104.

⁴⁵ *Id.*

⁴⁶ *Id.* at *109.

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The Ultramercial Case⁴⁷

Ultramercial, Inc. v. Wildtangent, Inc., decided on June 21, 2013, was the Federal Circuit’s first opportunity to consider the subject matter eligibility of a software-related invention after *CLS*. As described above, the Federal Circuit’s original 2011 decision in *Ultramercial* was vacated by the Supreme Court and remanded in view of *Mayo*.⁴⁸ The claims at issue were directed to an Internet advertising method and recited an eleven-step method for providing copyrighted products to a user for free in exchange for the user viewing an advertisement.⁴⁹

The three-judge panel, which interestingly included both Judge Rader and Judge Lourie, unanimously reversed the district court’s determination that the claims were ineligible. Judge Rader wrote the opinion of the court, which articulated a two-part analysis for determining the subject-matter eligibility of software:

[F]irst, [determine] whether the claim involves an intangible abstract idea; and if so, [determine] whether meaningful limitations in the claim make it clear that the claim is not to the abstract idea itself, but to a non-routine and specific application of that idea.⁵⁰

In the context of computer-implemented claims, the court indicated that a meaningful limitation could be shown when a claim “tie[s] the otherwise abstract idea to a *specific way* of doing something with a computer, or a *specific computer* for doing something.”⁵¹ The court stressed that the determination of whether a claim includes meaningful non-abstract limitations must consider the claim as a whole.⁵²

Regarding the claims at issue, the court identified the relevant abstract idea as the use of advertising as currency.⁵³ The court held that the claims recited meaningful limitations that limited the coverage to a specific way of using advertising as currency. In reaching this result, the court examined the eleven steps recited by Claim 1 in view of the extensive computer programming that the patent disclosed as necessary to implement the actions.⁵⁴ Finally, the court noted that it did not decide or even consider the patentability of the claims under the novelty and non-obviousness standards described above.⁵⁵

Judge Lourie contributed a brief concurrence in *Ultramercial* indicating that the claims at issue were also patent eligible under his *CLS* framework. He examined whether the claims at issue would preempt the identified abstract idea and concluded that this was not the case.⁵⁶

The SAP Case⁵⁷

Between the *CLS* and *Ultramercial* decisions, the Patent Trial and Appeal Board (PTAB) decided *SAP Am. V. Versata Dev. Grp.* on June 11, 2013. *SAP* was the very first case decided by the PTAB under the new post-grant challenge proceedings instituted by the Leahy-Smith America Invents Act (AIA). The claims at issue in *SAP* included method, apparatus, and computer-readable medium claims

⁴⁷ *Ultramercial, Inc. v. Wildtangent, Inc., et al.*, No. 2010-1544, slip opinion (Fed. Cir. 2013).

⁴⁸ See *WildTangent, Inc. v. Ultramercial, LLC, et al.*, 132 S. Ct. 2431 (2012).

⁴⁹ See *Ultramercial*, No. 2010-1544 at 2.

⁵⁰ *Id.* at 26.

⁵¹ *Id.* at 23 (emphasis in original).

⁵² *Id.* at 16 (emphasis in original).

⁵³ *Id.* at 26.

⁵⁴ *Id.* at 27.

⁵⁵ *Id.* at 33.

⁵⁶ See *Ultramercial*, No. 2010-1544, Lourie concurrence at 3.

⁵⁷ *SAP Am. V. Versata Dev. Grp.*, No. CBM2012-00001, slip opinion (P.T.A.B. 2013).

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directed to determining the price of a product utilizing hierarchies of organizational groups and product groups.⁵⁸ The PTAB cancelled all of the claims as being patent ineligible.

The PTAB articulated its analysis as determining “whether the claims do significantly more than simply describe the law of nature or abstract idea.”⁵⁹ The claims were found to relate to the abstract idea of “determining a price using organization and product group hierarchies.”⁶⁰ The PTAB held that the claims did not include sufficient “meaningful limitations to ensure that the claims are more than just an abstract idea.”⁶¹ In its analysis, the PTAB found that there was no practical application of the abstract concept except in connection with a computer. Given this, claim language specifically reciting a computer implementation was not a meaningful limitation sufficient to confer patent eligibility.⁶² Further, the PTAB found that the claims required only routine computer hardware and programming. Therefore, no individual hardware or programming step recited in the claims was a meaningful limitation. Finally, the PTAB found that the specific actions recited by the claims were “conventional and routine steps that are a consequence of implementing the abstract idea.”⁶³

[How can patent owners and applicants maximize the value of their portfolios?](#)

As the perceptive reader has no doubt realized, the *CLS*, *Ultramercial* and *SAP* decisions do not provide any one clear test for determining the patent subject matter eligibility of software-related inventions. Nonetheless, a pattern is beginning to emerge. Patent-eligible claims to software-related inventions will be required to recite meaningful limitations beyond an abstract idea.⁶⁴ While it is unclear precisely what will constitute a “meaningful limitation,” most of the potential analyses require more than simply reciting that actions are executed by a computer.⁶⁵ What follows is a set of options to consider that may help make a software-related invention more likely to be patent eligible based on some of the developments to date.

Incorporation of non-computer physical limitations into software claims

Under the tests applied in *CLS*, *Ultramercial*, and *SAP*, claims are much more likely to be found patent eligible if the claims include physical limitations beyond a computer that limit claim scope to one of a number of methods of using the abstract idea in a particular field.⁶⁶ Practically, this includes claims that recite a computer or processor in communication with another device such as a sensor, a camera, a motor, and perhaps even a second computer. Other examples include claims that recite a

⁵⁸ *Id.* at 37.

⁵⁹ *Id.* at 26.

⁶⁰ *Id.* at 28.

⁶¹ *Id.* at 29.

⁶² *Id.* at 30.

⁶³ *See id.* at 32.

⁶⁴ *See CLS Bank*, 2013 U.S. App. LEXIS 9493, *29, *Ultramercial*, No. 2010-1544, at 21, *SAP*, No. CBM2012-0001, at 26.

⁶⁵ *See id.*

⁶⁶ *See, e.g., Parker v. Flook*, 437 U.S. 584 (1978) (process for catalytic conversion of hydrocarbons specifying steps of determining present value of a process variable, determining new alarm base value using specified equation, determining updated alarm limit value, and adjusting the alarm limit to the updated alarm limit value were invalid for preempting a law of nature); *compare Diamond v. Diehr*, 450 U.S. 175 (1981) (process for molding rubber involving providing a computer with a database of information, initiating an interval timer in the computer, constantly determining temperature of the mold near the mold cavity and providing the temperature to the computer, repetitively calculating reaction time using a specific equation, comparing in the computer the elapsed time to the time calculated by the equation, and opening the mold automatically did not preempt use of the equation).

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computer controlling or directing physical actions such as heating, placing, moving, or reacting something.⁶⁷

These types of claims may be worth considering in various scenarios when considered relative to the impact of claim amendments or new claims as part of a contentious proceeding. For example, these types of claims may have value in an *ex parte* reexamination or reissue of an issued patent if the patent is likely to be litigated or if the claims are directed to an abstract idea and unlikely to hold up in light of the recent trends in the law.⁶⁸ Based on anecdotal data, many patent examiners - out of an abundance of caution - reject method claims not containing physical limitations as being drawn to ineligible subject matter. Such rejections, of course, will lengthen the time involved in patent prosecution. Therefore it may be prudent to add physical limitations into claims where practical in order to have a granted patent available that will allow a business to prevent copying of various core business activities.

Claims directed to essential or improved computer technology

Several of the potential analyses suggest that claims may be patent eligible if the claims are significantly tied to a computer, or relate to improvements in computer technology. For example, Judge Lourie's framework from *CLS* suggests that a claim may recite a meaningful limitation beyond an abstract idea if the claim recites essential or improved computer technology.⁶⁹ Judge Rader's approach in *Ultramercial* also states that "meaningful limitations may include the computer being part of the solution, being integral to the performance of the method, or containing an improvement in computer technology."⁷⁰

In view of this, claims where computer implementation is essential to the claim may have value to the applicant. Judge Lourie's opinion helpfully cited *SiRF Tech., Inc. v. Int'l Trade Comm'n*⁷¹ as an example of essential computer technology. The claim at issue in *SiRF* was directed to a method of determining the location of a GPS receiver. If the use of a computer is essential, for example, where it is not possible for the method to be performed by a human, claiming that use is likely to bolster patent eligibility.

Claims directed to improvements in computer technology are also worth evaluating as part of the patent strategy. Judge Lourie's opinion cited *Research Corp. Techs., Inc. v. Microsoft Corp*⁷² as providing an example of this type of claim. The claims at issue in *Research Corp.* were directed to methods for generating images for display and printing using a reduced number of pixel colors. Accordingly, claims that can be described as improving the operation of a computer are another option to consider when trying to claim a software-based invention. Potential examples may include claims directed to increasing the speed, efficiency, or utility of processing, data storage, memory usage, display generation, input/output, *etc.*

⁶⁷ See *id.*

⁶⁸ The U.S. Patent and Trademark Office has stated that they will continue to use their current procedure for assessing whether claims define patent-eligible subject matter. See Memorandum of Andrew H. Hirshfeld to Patent Examining Corps re. Federal Circuit Decision in *CLS Bank et al. v. Alice Corp.*, May 13, 2013 (available at http://www.uspto.gov/patents/law/exam/clsbank_20130513.pdf). The U.S. Patent and Trademark Office has also said that they continue to study the Federal Circuit's decision and may possibly provide additional guidelines to the patent examiners after that study. See *id.*

⁶⁹ *CLS Bank*, 2013 U.S. App. LEXIS 9493, *45.

⁷⁰ See *Ultramercial*, No. 2010-1544 at 24.

⁷¹ See *CLS Bank*, 2013 U.S. App. LEXIS 9493, *45, *SiRF Tech., Inc. v. Int'l Trade Comm'n*, 601 F.3d 1319 (Fed. Cir. 2010).

⁷² See *CLS Bank*, 2013 U.S. App. LEXIS 9493, *45, *Research Corp. Techs., Inc. v. Microsoft Corp.*, 627 F.3d 859 (Fed. Cir. 2010).

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Consider describing the invention at differing levels of detail

Based on the current developments, it appears likely that whatever test emerges will involve identifying an abstract idea, and then determining whether the claims preempt or recite a specific application of the abstract idea.⁷³ Consequently, applications and claims that include details that extend beyond a basic idea or notion behind the invention are likely to have a better chance before the USPTO. One way to accomplish this is to describe a broad notion in the specification and claim it more narrowly using additional limitations. It is settled that simply limiting a claim to a particular field of use does not make the claim patent eligible.⁷⁴ Therefore, it may be worthwhile to draft claims to allow other uses of the method within the same field of use. In lieu of amending the claims, narrowing statements may also be made during patent prosecution, if circumstances warrant them. Further, at least Judge Rader's analyses involved examining the level of detail in a patent's specification, with more detail tending to indicate patent-eligible subject matter.⁷⁵ Accordingly, rich description at and below the level of detail of the claims may be useful as well.

Risks associated with portraying the claimed subject matter as an abstract idea

A patent's description of the invention in its specification may be used in construing claims, as may statements made at any time during patent prosecution. These statements sometimes describe a basic notion or idea behind the invention and can be used as one measure of whether claims are drawn to an abstract idea or to patent-eligible subject matter. The more a patent claim mimics the description of the "idea" behind the invention, the more likely that the description of the "idea" will be used against the patentee's claim. This may occur in litigation or during patent prosecution to support an argument that the patentee is claiming no more than an abstract idea. Conversely, significant distinctions between the "idea" and the claims may give a patentee more ammunition to argue that the claims are not merely an abstract idea.

Claims directed to systems that include a computer

In *CLS*, the ten judges of the Federal Circuit were equally divided on the issue of whether claims to a system having a computer programmed a certain way define a new machine and are therefore patent eligible. System claims including a computer may be valuable to prosecute now to narrow patentability issues to a single issue, patent eligibility, so that the claims may be ready to issue in view of future court decisions that are undoubtedly going to be made to further define the law on patent eligibility.⁷⁶

Further, it may be helpful to include patent claims to a computer in which software interacts with computer components in a certain way or structures data in a certain way, especially if the software could have been configured in multiple ways but the selected way(s) provide particular advantages. While it is not certain that these types of patent claims will be found to define patentable subject matter, the argument that the computer and software could be configured multiple other ways consistent with the abstract idea helps in an argument that the abstract idea is not preempted.

⁷³ See *CLS Bank*, 2013 U.S. App. LEXIS 9493, *29, *Ultramercial*, No. 2010-1544, at 21, *SAP*, No. CBM2012-0001, at 26.

⁷⁴ See *CLS Bank*, 2013 U.S. App. LEXIS 9493, *25, *Ultramercial*, No. 2010-1544, at 20, *SAP*, No. CBM2012-0001, at 26.

⁷⁵ See *CLS Bank*, 2013 U.S. App. LEXIS 9493, *109, *Ultramercial*, No. 2010-1544, at 27-30.

⁷⁶ System claims are also valuable for other reasons. They can ameliorate extra-territoriality and joint infringement issues. See *NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282 (Fed. Cir. 2005), See *BMC Resources, Inc. v. Paymentech, L.P.*, 498 F.3d 1373 (Fed. Cir. 2007).

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One inference from the courts' decisions is that the courts and the patent office are much more likely to conclude that claims are patent ineligible where their scope is broad and the claims do not contain physical limitations. In view of this, one might consider including multiple limitations in these sorts of claims that in effect limit the claims to a fairly specific area of business and/or technology.⁷⁷

Likewise, it is more likely that a court will hold that claims involving specific, tangible measures that reduce an entity's risk define patent-eligible subject matter over claims to a method of assessing risk. While such claims may appear to be restricted in their scope, it may be very helpful to include claims restricted in these ways in the near-term until the issue of patent eligibility is better resolved.

Status of PTAB proceedings

Of the three recent cases described herein, the one applying the most difficult standard for patentees was the *SAP* decision from the PTAB. If this opinion indicates a trend at the PTAB, patentees may want to be selective in situations where applicant or patentee action may bring them before the PTAB in proceedings that allow the PTAB to consider patent subject matter eligibility. Examples of these proceedings include Post Grant reviews and Covered Business Method (CBM) reviews.

What is next?

Over the coming months and years, the courts and the patent office should provide better guidelines on the conditions for patent eligibility of claimed subject matter. Ultimately, it is conceivable that the Supreme Court will attempt to resolve the situation by again weighing in on patent subject matter eligibility. It is also conceivable that the Supreme Court will remain uninvolved and allow the Federal Circuit to establish a uniform standard. In the interim, patent applicants and patent owners may want to consider the options that are described herein while watching the PTAB, the Federal Circuit, and the Supreme Court for additional guidance.

⁷⁷ Cf. generally note 66 above. The Supreme Court held that a patent claim drawn to use of an equation in a particular field of use (oil refining) was not patent-eligible subject matter despite the claim not foreclosing use of the equation in other fields. *Parker v. Flook*, 437 U.S. 584 (1978). However, the Supreme Court held that a patent claim drawn to use of an equation in a more specific use (rubber molding) was patent-eligible subject matter. *Diamond v. Diehr*, 450 U.S. 175 (1981). In *Diehr*, the Supreme Court noted that the patent applicant said that continuous measuring of temperature inside the mold cavity, feeding this information to a digital computer which constantly recalculates the cure time, and the computer's signaling to open the press were all new steps in rubber curing. *Diehr*, 450 U.S. at 179. *Diehr's* steps were therefore unconventional steps and did not prevent people from using the equation in other methods of curing rubber. Consequently, one potential approach for claims without physical limitations is to narrow claim scope further within a field of use so that there may be multiple ways that the abstract idea can be used within that field of use.

What Is Next for Software Patents?

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