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Revisiting Chakrabarty: Does the Concept of Patentable Subject Matter Need to be Changed?

The so-called "free-for all" ¹ concerning the issuance of questionable software patents is probably the result of a convergence of circumstances nobody expected. The very broad Supreme Court decisions in *Diamond v. Chakrabarty*² and *Diamond v. Diehr*³ in the early 1980s and the Federal Circuit decisions *State Street Bank v. Signature Financial*⁴ in 1998 coincided with a boom in the technology and software industries that flooded the United States Patent Office with applications for software patents. These factors, combined with a Patent and Trademark Office unprepared to examine and process new types of patents resulted in the issuance of software patents that in many cases should not have been issued.

In 2007, the controversy over software patents is far from over. Both the Supreme Court and Congress have a renewed interest in reforming the patent system to address technology and software patents. The Court has traditionally deferred to Congress on issues of patentable subject matter, but Congress has been reluctant to make any changes to the Patent Act regarding patentable subject matter. Therefore, the decision to broaden or narrow the broad interpretation of its controlling precedent *Chakrabarty* most likely rests solely in the hands of the Court.

¹ *Laboratory Corporation of America v. Metabolite Laboratories Inc.* 126 S.Ct. 2921 (2006)

² *Diamond v. Chakrabarty*, 100 S.Ct. 2204 (1980)

³ *Diamond v. Diehr*, 101 S.Ct. 1048 (1981)

⁴ *State Street Bank & Trust v. Signature Financial Group*, 149 F. 3d 1368, Fed. Cir. (1998)

The Supreme Court's consideration in the *Metabolite* denial of certiorari and accompanying dissent by Justices Breyer, Stevens and Souter indicates the Court's renewed interest in the problematic issues of patentable subject matter and software and business method patents. The impact of a decision that could alter *Chakrabarty* or perhaps overrule *State Street* could be far reaching, especially in the industry of technology and software patents.

To date, the Court has taken a traditional or textual approach to its definition of patentable software matter. Article 1, section 8 of the Constitution, was intentionally broad. It gives Congress the power "To promote the progress of science and the useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries."⁵ The definition of patentable subject matter remains broad but clarified to keep pace with advances in science, industry, communication and technology are reflected in the Patent Act's enumeration of subjects patentable. The definition, while still broad was clarified in the Patent Act: "Whoever invents or discovers any new and useful process, machines, manufacture or composition of matter or any new and useful improvement thereof, may obtain a patent."⁶ In 1980, the *Chakrabarty* held that a live-human made microorganism is patentable subject matter under the statute and reaffirmed the broad construction of the Constitution, holding that Congress intended statutory subject matter to include "anything under the sun made by man."⁷ However, the majority also

⁵ U.S. CONST. art. I, § 8.

⁶ The U.S. Patent Act, 35 U.S.C. §101 (1952).

⁷ *Chakrabarty*, 100 S.Ct , 2207,2208 (1980)

included language defining what is not patentable -- exceptions that are now central to the issue of business method and software patents. "This is not to say that §101 has no limits or that it embraces every discovery. The laws of nature, physical phenomena and abstract ideas have been held not patentable."⁸

It's important to take note of the *Chakrabarty* dissent, which is not as certain as the majority that the Court should be determining what is and is not patentable subject matter. Justice Brennan writing for the dissent as follows:

Given the complexity and the legislative nature of this delicate task, we must be careful to extend patent protection no further than Congress has provided. In particular, where there is an absence of legislative direction, the courts should leave to Congress the decisions whether and how far to extend the patent privilege into areas where the common understanding has been that patents are not available."⁹

Brennan also urged the court to "proceed cautiously when we are asked to extend patent rights into areas wholly unforeseen by Congress."¹⁰

The broad definition of patentable subject matter and areas that could be viewed as "wholly unforeseen by Congress" were at issue in the *State Street Bank & Trust Co v. Signature Financial Group Inc.* case.¹¹ Signature Financial had a patent for a computerized "hub and spoke" accounting system used to manage mutual fund and investment structure. When negotiations to license the patent to State Street broke down, State Street sued,

⁸ *Id.*, at 2208.

⁹ *Id.*, at 2213.

¹⁰ *Id.*, quoting *Parker v. Flook*, 90 S. Ct. 2522, 2529 (1978) at 2213.

¹¹ *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* 149 F. 3d 1368.

alleging the patent was invalid and unenforceable.¹² The case was heard by Federal Circuit judge Giles Rich, a co-author of the modern Patent Act. Rich was known for his staunch belief that if the patent system was to fulfill its Constitutional purpose, it had to be a living statute that would allow for protection for all the new types of inventions made as society changes.¹³

In *State Street*, Rich cited the *Chakrabarty* exceptions, writing that abstract ideas are not patentable and interpreted abstract ideas to include mathematical algorithms. Citing *Chakrabarty* and *Gottschalk v. Benson*¹⁴ the Court noted that certain types of mathematical subject matter standing alone represent nothing more than abstract ideas *until reduced to some type of practical application, i.e. "a useful concrete and tangible result."* (Emphasis added).¹⁵

The two-part test analyzes whether a mathematical algorithm is directly or indirectly recited. Next, if the mathematical algorithm is found, the claim as a whole is further analyzed to determine if it is applied in any manner to physical elements or process steps. If it is, it passes under a Section 101 analysis.¹⁶

Using this analysis, the Court held that Signature Financial's patent was valid. "Signature's method of transforming data, representing discrete dollar amounts by a

¹² *State Street* at 1370

¹³ Neil A. Smith, Remembrances and Memorial, Judge Giles Rich, 1904-1999 available at <http://www.law.berkeley.edu/journals/btlj/articles/vol14/Smith/html/text.html> (last visited 4/25/07).

¹⁴ *Gottschalk v. Benson*, 93 S. Ct. 253 (1972).

¹⁵ *State Street* at 1374

¹⁶ *Id.* at 1374.

machine though a series of mathematical calculations into a final share price constitutes a practical application of a mathematical algorithm."¹⁷

In the *State Street* decision, Judge Rich addressed what he termed the ill-conceived so-called business method exception.

The business method exception is ... an unwarranted encumbrance to the definition of statutory subject matter in Section 101 ... *State Street* argued that the Federal Circuit had acknowledged the 'business method exception' in earlier opinions and held them to be invalid ... Since its inception, the 'business method' exception has merely represented the application of some general, but no longer applicable legal principle, perhaps arising out of the "requirement for invention"-- which was eliminated by § 103. Since the 1952 Patent Act, business methods have been, and should have been, subject to the same legal requirements for patentability as applied to any other process or method ... The business method exception has never been invoked by this court or the CCPA to deem an invention unpatentable.¹⁸

The Court also pointed to the 1996 Examination Guidelines for Computer Related Inventions issued by the PTO which said in part: "Office personnel have had difficulty in properly testing claims directed to methods of doing business. Claims should not be categorized as methods of doing business. Instead, such claims should be treated like any other process claims,"¹⁹ and said "We agree that this is precisely the manner in which this type of claim should be treated. Whether the claims are directed to subject matter within

¹⁷ *State Street*, at 1373.

¹⁸ *Id.* at 1375.

¹⁹ *State Street*, quoting *Examination Guidelines*, 61 Fed.Reg.7478, 7479 (1996).

§10 should not turn on whether the claimed subject matter does "business" instead of something else."

State Street's determination that business methods were patentable as long as they met the requirements for patentable subject matter under §101 is arguably one of the Federal Circuits most controversial decisions. The 1998 decision came down just as the Internet and digital technology sectors were making rapid developments in the area of software.

The *State Street* holding, which was and still is controlling for business method patents, held that the "practical application of a mathematical algorithm was patentable. As a result "application became the buzzword most frequently invoked by software developers seeking patents for their inventions.²⁰

The convergence of the *State Street* decision and the increase in software and technology development resulted in a flood of patent applications. In 1990, 1,300 software patents were issued. That number increased to 22,500 in 1999.²¹

Immediately following the *State Street* decision in 1998, an estimated 58,000 technology patents were filed. The PTO reported it had received 58,000 technology-related patent applications. At the time, each application took at least 14 months to process. The PTO

²⁰ Paul Graham, *Are Software Patents Evil?*, lecture at Google, March 2006, available at <http://www.paulgraham.com/softwarepatents.html> (last visited 4/25/07).

²¹ Greg Aharonian, *1998 Patent Software Statistics*, Internet Patent News Service Dec. 15, 1998 reprinted in *Linux Weekly News* available at <http://lwn.tucows.com/1998/1217/a/ipns.html> (last visited 4/28/07).

hired almost 400 examiners to handle the deluge with 250 dedicated to the technology center dealing with computers and Internet-related patents.²²

"Whenever software meets government bad things happen because software changes fast and government changes slow ... The patent office has been overwhelmed by both the volume and the novelty of the applications for software patents and as a result they've made a lot of mistakes," said Paul Graham, a software developer with Yahoo, who says the problem is not with the concept of software patents, but the overworked patent office.²³

Other Internet entrepreneurs agreed the PTO faced an incredibly daunting task. Jay Walker, co-founder of the travel/auction website Priceline.com said the PTO had an impossibly difficult job, saying [the PTO] had an impossibly difficult job ... they are doing good work, trying their best. The problem lies in Congress, not in the patent office."²⁴

Patent Lawyer Daniel A. Tysver, explained that the PTO problem of trying to find software prior art that was the biggest limitation for software patents. "For other types of inventions, patent examiners can review previously issued patents. However, since most software inventions were unpatented (based upon the incorrect assumption that software is not patentable), examiners who rely only on previous patents for prior art end up missing most of the preexisting software. Nevertheless, patent examiners still rely primarily on previous patents, and the result is that many software patents have been issued that are 'bad

²² Jennifer Sullivan, *Net Overloads US Patent Agency*, Wired News, May 19, 1999 at <http://www.wired.com/politics/law/news/1999/05/19473>. (last visited 4/25/07).

²³ Graham, *supra*.

²⁴ Sullivan, *supra*.

patents' --meaning that they would not have been issued had the examiner been able to find all of the prior art."²⁵

Software and technology developers and entrepreneurs blamed the issuance of bad software patents on the PTO, but an equal number placed the blame squarely with *State Street's* decision that a business method application was patentable subject matter. In its amicus brief for reversal in the Supreme Court's *Metabolite* case, the Financial Services Industry said the following:

The issues in this case relating to the proper scope of patentable subject matter could have significant economic repercussions. If the Court were to countenance patents that claim abstract ideas, the free-for-all in the patenting of abstract business methods would continue. ... This Court can and should reduce the risk to innovation and efficiency in the financial services industry by reaffirming the patentability principles enunciated in [*Diamond v. Diehr*] and earlier cases.²⁶

Silicon Valley attorney Michael Barclay expressed his frustration with the system with a touch of irony in *Wired* magazine: "Why not apply for a patent for the method of invalidating patents? You can patent anything now."²⁷

Justice Breyer agreed with the Financial Services' view of business method and software patents and, writing for the dissent in the denial of certiorari in *Metabolite*, he suggested that the Supreme Court could perhaps end the debate over the patentability of

²⁵ Daniel A. Tysver, *Bad Software Patents*, at BitLaw: A Resource on Technology Law, available at <http://www.bitlaw.com/software-patent/bad-patents.html> (last visited 4/25/07).

²⁶ *Brief of Financial Services Industry Amicus Curiae in Support of Reversal in Metabolite*, 2005 WL 3543097.

²⁷ Sullivan, *supra*.

business methods and software patents. " ... [A] decision from this generalist Court could contribute to the important ongoing debate among both specialist and generalists as to whether the patent system, as currently administered and enforced, adequately reflects the "careful balance" that the federal patent laws ... embody." The *Metabolite* dissent also noted that the Supreme Court had never ruled on the business method patent. "The Federal Circuit's decision in *State Street Bank* ... does say the process is patentable if it produces a useful, concrete and tangible result but this Court has never made such a statement and if taken literally the statement would cover instances where this Court has held the contrary."²⁸

The Supreme Court's previous rulings relating directly to software patents that address the patenting of mathematical formulas or algorithms as patentable subject matter under §101 include *Gottschalk v. Benson* and *Diamond v. Diehr*.

Gottschalk concerned a patent on a method for converting binary-coded decimal numerals into pure binary numerals for programming a general-purpose digital computer.²⁹

The court held that the mathematical formula involved had no substantial practical application except in connection with a digital computer and was not patentable subject matter. The Court went on to say that if the patent were found to be valid, it would "would wholly pre-empt the mathematical formula and in practical effect would be a patent on the algorithm itself."³⁰

²⁸ *Metabolite* at 2928, 2929.

²⁹ *Gottschalk v. Benson* 93 S.Ct. 253, 254 (1972)

³⁰ *Id.*, at 257.

In its decision, the court made it clear that while "It may be that the patent laws should be extended to cover these [mathematical] programs, a policy matter the court stated it was not competent to speak. The President's Commission on the Patent System rejected the proposal that these programs be patentable."³¹

Diamond v. Diehr, decided a year after *Chakrabarty*, drew a distinction between the "freestanding" algorithm in *Gottschalk* and the "useful process" algorithm.³²

The patent at issue in *Diamond v. Diehr* was a process for molding raw, uncured synthetic rubber into cured precision products. The process included using a well known mathematical formula to calculate when to open the press and when to remove the cured product.³³ The issue in *Diehr* was whether a process for curing rubber that included a mathematical formula in several of its steps and a programmed digital computer was patentable subject matter under 35 USC §101.

Writing for the majority, Justice Rehnquist reiterated the *Gottschalk* holding that in that case, the patent was invalid because the sole practical application was in connection with the programming of a computer, and distinguished it from the algorithm claimed in *Diehr*:

"In contract, the respondents here do not seek to patent a mathematical formula. Instead, they seek patent protection for a process of curing rubber That admittedly employs a well-known mathematical equation *but they do not seek to pre-empt the use of that equation. Rather, they seek only to foreclose from others the use of that*

³¹ *Id.* at 257, referencing *To Promote the Progress of ... Useful Arts*, Report of the President's Commission on the Patent System 1966).

³² *Diamond v. Diehr*, 101 S.Ct. 1048, 1055 (1981)

³³ *Diehr*, at 1052.

equation in conjunction with all of the other steps in their claimed process. (Emphasis added.)³⁴

In the opinion, Rhenquist was careful to point out that the claim in *Diehr* was seen by the Court as a claim for a process of molding rubber products and nothing more. The Court recognized that when a claim recites a mathematical formula or scientific principle or natural phenomenon, an inquiry must be made into whether the claim is seeking patent protection for that formula in the abstract. A mathematical formula as such is not accorded the protection of U.S. patent law.³⁵

The dissent in *Diehr*, written by Justice Stevens, like the dissent in *Chakrabarty*, expresses its concern with the patent system's ability to deal with rapidly changing technology and other fields. Citing the *Report of the President's Commission on the Patent Act 1966*, Justice Stevens refers to its conclusion "[t]hat computer programs be expressly excluded from the coverage of the patent laws; this recommendation was based primarily upon the Patent Office's inability to deal with the administrative burden of examining program applications."³⁶

The Report of the President's Commission on the Patent System addressed the feasibility of patenting computer programs. "Direct attempts to patent programs have been rejected on the ground of non-statutory subject matter [referring to *Gottschalk*] ... Indirect attempts to obtain patents and avoid the rejection by drafting claims as a process or a

³⁴ *Diehr* at 1058.

³⁵ *Id.*, at 1059.

³⁶ *Diehr*, at 1062.

machine or its components thereof programmed in a given manner rather than a program itself have confused the issue further and should not be patented." ³⁷

The *Diehr* dissent expressed concerns about the ability of the PTO to adequately examine patent programs, but the majority maintained its holding that a formula that was only a component of a claim would make the process of reviewing patent programs clearer. "This principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment ... To hold otherwise would allow a competent draftsman to evade the recognized limitations on the type of subject matter eligible for patent protection."³⁸

The 1966 *Commission* remained unconvinced that there was as yet any reliable way to examine this type of computer software patent:

"The Patent Office now cannot examine applications for programs because of a lack of a classification technique and the requisite search files. Even if these were available, reliable searches would not be feasible or economic because of the tremendous volume of prior art being generated. Without this search, the patenting of programs would be tantamount to mere registration and the presumption of validity would be all but nonexistent."³⁹

In 1994 the PTO held a public hearing on the use of the patent system to protect software-related inventions. Rob Lippincott, executive vice president of the Interactive Multimedia Association testified that not much had changed in the 28 years since the 1966

³⁷ *To Promote the Progress of Useful Arts in an Age of Exploding Technology*, Report of the President's Commission on the Patent System, at 13 (1966)

³⁸ *Id.* at 1059

³⁹ *Report of the President's Commission* at 13.

report was issued after 28 years. "[I]n our industry, the situation remains largely the same because the search files have never been completely developed and the volume of prior art has naturally grown exponentially. Despite these concerns the PTO began issuing patents on software processes liberally without addressing the practical problems.⁴⁰

In 2001, after settling a bitter infringement suit against Barnes & Noble for alleged infringement of on its "one-click" ordering system, Amazon founder and CEO Jeff Bezos began to lobby Congress to treat business methods and software patents differently from other types of patents. His plan included a shorter lifespan for patents saying that in the Internet Age a software patent could "catch a lot of wind" in only a few years. However the movement for special reforms for the business method and software patents never took hold in Congress, software developers or technology companies.⁴¹

Clever drafting of patent claims may present mathematical formulas, algorithms or computer programs not as freestanding claims but merely as a component of a complex claim that is part of an application or process. The Supreme Court originally granted certiorari in *Metabolite* to determine whether Metabolite's patent claim was invalid on the ground that it improperly sought to claim a monopoly over a basic scientific relationship.⁴² The patent at issue claimed, " a method of ... assaying a body fluid for an elevated level of total homocysteine and correlated an elevated level of total homocystene in said body fluid

⁴⁰Rob Lippincott, Testimony at Public Hearing on Use of the Patent System to Protect Software-Related Inventions Transcript of Proceedings.(February 10, 1994), (transcript available at http://www.uspto.gov/web/offices/com/hearings/software/arlington/va_lippincott.html)

⁴¹ *An Open Letter from Jeff Bezos on the Subject of patents*, March 9, 2000 available at http://www.oreilly.com/news/amazon_patents.html (last visited 4/23/07).

⁴² *Metabolite*, at 2922.

with a deficiency of coblamin or folate."⁴³ In an appeal before the Federal Circuit, LabCorp argued that the trial court was wrong to construe the claim... "so broadly that infringement took place every time a physician did nothing more than look at a patient's homocysteine level."⁴⁴ CHECK CITE. LabCorp also argued that the claim was too vague under the precedent set by the court in *Diamond v. Diehr*:

If the Court were to uphold this vague claim, anyone could obtain a patent on any scientific correlation – that there is a link between A and B – by merely drafting a patent claiming no more than a "test for fact A and correlated with fact B ... If it is upheld [Metabolite] would improperly gain a monopoly over a basic scientific fact rather than any novel invention of its own. The law is settled that no such claim should be allowed."⁴⁵ CHECK CITE

The Court asked the Solicitor General to brief his opinion on *Metabolite*. In his amicus brief, he urged the court not to take the case and the Court ultimately chose to reverse its decision to rule on the *Metabolite* case over the objections of the three dissenting justices. The Solicitor argued that although some members of the Court felt they could decide the controversial issue of patentable subject matter in this case, at the urging of the Solicitor General, the majority chose to reverse its decision.

The Solicitor based his opposition to the Court's grant of certiorari to *Metabolite* on three main factors. He concluded that the patent claim in *Metabolite* seemed to involve an "unpatentable natural phenomenon," The record is not sufficiently developed to permit comprehensive consideration of the question whether claim 13 satisfies the subject matter

⁴³ *Id.* at 5.

⁴⁴ *Id.*, at 2925, quoting Corrected brief for the Appellant 2003 WL 24305314, 28.

⁴⁵ *Id.* at 7, quoting Brief for the Appellant at 41.

requirements of Section 101 ... [b]ecause petitioner did not argue below [that the claim] attempts to claim non-patentable subject matter and is therefore invalid under Section 101, the courts did not focus on the term 'assay' or otherwise address [the claim] 'as a whole.' Indeed, the lower courts did not interpret the claim term 'assay' at all.⁴⁶

The Solicitor also determined the record may not have a clearly developed claim regarding whether the *Metabolite* involved an inventive aspect other than a natural phenomenon. If it does not involve such an aspect and the other requirements [discussed in the claim] are satisfied, it is valid under *Flook*.⁴⁷

The brief alluded to Justice Rhenquist's dicta in *Diamond v. Diehr* and said whether or not the patent claim involved an inventive aspect other than a natural phenomenon could conceivably depend in part on the construction of the claim and the lower courts did not construe the claim with that concern in mind.⁴⁸

In his dissent, Justice Breyer called the Solicitor General's conclusions a technicality that should not bar the Court from ruling on the issue of patentability:

I can find no good practical reason for refusing to decide the case. The relevant issue has been fully briefed and argued by the parties, the Government, and 20 *amici*. The record is comprehensive, allowing us to learn the precise nature of the patent claim, to consider the commercial and medical context (which the parties and *amici* have described in detail), and to become familiar with the arguments

⁴⁶ *Id.* at 5, 8-9.

⁴⁷ *Parker v. Flook*, 98 S.Ct. 2522, 2527 (1978). This case said in part that "The rule that the discovery of a law of nature cannot be patented rests, not on the notion that natural phenomena are not processes, but rather on the more fundamental understanding that they are not the kind of 'discoveries' that the statute was enacted to protect."

⁴⁸ *Brief for the United States* at 17-18.

made in all courts. Neither the factual record nor the briefing suffers from any significant gap. No party has identified any prejudice due to our answering the question. And there is no indication that LabCorp's failure to cite § 101 reflected unfair gamesmanship.⁴⁹

In *Metabolite*, there was a question of whether or not a §101 issue was properly raised, but Justice Breyer made it clear that the issue of a "free for all" regarding business method patents was something the Court must consider – if not in *Metabolite*, then in another case on point.⁵⁰

In early 2007, the Court heard *Microsoft v. AT&T*,⁵¹ a foreign infringement case. Although the court was not asked to decide patentable subject matter in this case, the Justices inquired about patentable subject matter during the oral arguments for each side.

In its petition for certiorari, Microsoft argued that AT&T's claim was not patentable subject matter and noted that the Court has "expressly rejected judicial efforts to rewrite the text of existing patent laws to cover technological advancements unforeseen by Congress. Microsoft also argued that since the Court had previously stated that ... "[d]ifficult questions of policy concerning the kinds of programs that may be appropriate for patent protection and the form and duration of such protection can be answered by Congress on the basis of current empirical data not equally available to this tribunal."⁵²

⁴⁹ *Metabolite* at 2926..

⁵⁰ *Metabolite* at 2929

⁵¹ *Microsoft v. AT&T*, 127 S.Ct. 1209 (Mem), 2007

⁵² *Microsoft Appellate Petition, Motion and Filing* available at 2006 WL 403987.

Microsoft said the Court's decision not to rule on the validity of the business method patent, it was their duty to "construe the patent states *as they now read*," *in light of our prior precedents* [emphasis theirs] and we must proceed cautiously when we are asked to extend patent rights into areas wholly unforeseen by Congress."⁵³ Microsoft quoted Justice Brennan's dissent in *Chakrabarty, supra*, to further point out lack of controlling Supreme Court precedent in the area of patentable software.

Microsoft's reliance on *Chakrabarty, Gottschalk and Diehr* to claim AT&T's software was not patentable subject matter provided Justice Breyer with an opportunity to inquire about patentable subject matter – a subject he knew was not at issue in this case:

Justice Breyer: I take it that we are operating under the assumption that software is patentable? We have never held that in this Court, have we?

Mr. Joseffer: No, but as I was saying before –

Justice Breyer: So what should we do here? Should, if we are writing this, since it's never been held that it's patentable in this Court . . . If I were writing something, should I say on the assumption that it's patentable? Since the issue isn't raised?

Mr. Joseffer: No. I think, I think the reason that's not relevant here is that the patented invention in this case is not software. It's computer that has software loaded into it. And the components of a patented invention do not themselves have to be patented.

At the close of Microsoft's allotted time, Justice Stevens asked Microsoft to answer just one yes or no question: "In your view is software patentable?" Microsoft replied, "Standing in and of itself, no." ⁵⁴

⁵³ *Microsoft v. AT&T*, Microsoft Corp. *Petition for a Writ of Certiorari*, 27, 28 2006 WL 403897.

⁵⁴ *Microsoft*, Oral Argument, 22,27 at http://www.supremecourt.us/oral_arguments/argument_transcripts/05-1056.pdf (Feb 21, 2006),

Like *Metabolite, Microsoft v. AT&T*, doesn't directly address the question of patentable software under section 101. As Microsoft noted in its brief, the Court has to date refused to rule on the patentability of business methods deferring instead to Congress to determine if software patents and business method patents are patentable subject matter under Section 101.⁵⁵

The Court's renewed and increased interest in patentable subject matter has also motivated Congress to consider revising the Patent Act. The shift in political control in Congress combined with the Court's renewed interest in taking patent cases has led to the Patent Reform Act of 2006⁵⁶. Released on April 18, 2007, it is one of the first proposed revamps of the patent system since the 1952 Act. House and Senate sponsors say the reform measures would address the mounting litigation over disputed patents -- lawsuits have doubled in the past decade -- and the difficulty of ensuring accurate decisions by patent agency examiners.⁵⁷ Technology companies and the pharmaceutical lobby are two of the strongest proponents of the proposed reforms, which as they currently exist in the House and Senate do not include any proposals to redefine patentable subject matter nor do they include any new provisions directly addressing business method patents or software patents.

⁵⁵ *Chakrabarty* at 2211.

⁵⁶ There are two versions of the Patent Reform Act, HR 1908 and S. 1145.

⁵⁷ Alan Sipress, *Patently at Odds: Drug and Tech Sectors Battle with Reform High on Agenda*, Washington Post.com, April 18, 2007, available at 2007 WLNR 7515235 (Pg. Unavail. Online)

However, it seems the decision may fall to the Courts since the Patent Reform Act of 2007, released on April 18 as House Bill 1908 and Senate Bill 1145 respectively, currently includes no amendments or alterations to §101 or patentable subject matter. Although the Supreme Court has said it would prefer Congress to make the final decisions on business method and software patents, the present Supreme Court seems prepared to take on the issue.

Unless Congress revises the Patent Reform Act to address the issue of patentable subject matter and software patents, *Chakrabarty* and *State Street* the courts will continue to be controlling precedent in issues of patentable subject matter and business method patents.

Justice Rhenquist's "competent draftsmen" the ability to come up with language that will make a mathematical formula, software code or natural phenomena seem much broader than they actually are. "The quality [of patents] is highly dependent on how [companies and their lawyers] write them," said acting Commissioner Dickinson in 1999.⁵⁸

The cases before the Court indicate the same is true today. In his analysis of the *BlackBerry NTP v. RIM* case, the "overwhelmed" PTO issuing invalid software patents again took center stage. "Well-intentioned but overworked patent examiners are flooded with highly complex patent applications and asked to approve or deny them on deadlines that would make Einstein sweat," wrote Columbia Law School professor Tim Wu. "The examiners, usually recent college graduates, face a variety of pressures, including an

⁵⁸ Sullivan, *supra*.

internal point system that many say favors speed over accuracy, and applications filed by seasoned professionals, expert in making even the most prosaic "invention" sound like the light bulb."⁵⁹

Although a decision is still pending before the Federal Circuit, *In re Nuijten*, a 2007 case concerning digital watermarks on recorded music or movie discs and DVDs could provide the Federal Circuit and perhaps the Supreme Court with an opportunity to rethink patentable subject matter.

In the oral argument, the Federal Circuit focused on whether Nuijten's digital watermark was patentable subject matter under §101. At oral argument, the justices focused in on Supreme Court precedent in its questioning of Nuijten (and his employer Phillips): "Whether the Supreme Court's statements in *Chakrabarty* are intended to be the definitive legal meaning of the term 'manufacture' as something made from raw materials ... [W]hen the statement was made in *Chakrabarty*, the issue was patentability of a living organism. ... It seems to me that the Supreme Court hasn't clearly answered the question before us ..."⁶⁰

Professor John Duffy of George Washington School of Law says "[Although] *Nuijten* raises important issues concerning the scope of patentable subject matter under U.S. law ...

⁵⁹ Tim Wu, *Weapons of Business Destruction*, Slate Magazine, Feb. 6, 2006, available online at <http://www.slate.com/id/2135559>. (last visited 7/6/07).

⁶⁰ *In re Nuijten*, No. 2006-1301, (Feb. 5, 2007) oral argument at <http://www.cafc.uscourts.gov/oralarguments/mp3/06-1371.mp3> (last visited 4/27/07).

it's also about the fundamental approach to interpreting the Patent Act and the effect of the Supreme Court's recent interest in patent cases." ⁶¹

If the Federal Circuit determines Nuijten has a valid patent, the PTO could appeal the case to the Supreme Court. *In re Nuijten's* is a clear §101 issue that would give the Supreme Court the opportunity it has been seeking to rule on the validity of software patents and perhaps redefine patentable subject matter for the new millennium.

⁶¹ John F. Duffy, *In re Nuijten: Patentable Subject Matter, Textualism and the Supreme Court*, Feb. 5, 2007 available at Patently-O, http://www.patentlyo.com/patent/2007/02/in_re_nuijten_p.html (last visited 4/26/07),

